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## **CASE STUDY AND ANALYSIS FOR A SUSTAINABLE QUALITY MANAGEMENT IN A UNIVERSITY LIBRARY**

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### **Abstract**

Putting a service into place in such a way as to avoid any major difference between expected quality and perceived quality requires an analysis aimed at identifying the means for improving its quality. In this respect, the paper presents such an analysis based on service provision processes and methods involving SERVQUAL type questionnaires filled in by library users. In our case study we have mapped out the current state of service quality perception in a university library. Furthermore, we have made a comparison with the results obtained in similar studies on info documentary structures running in different operating conditions. We have also listed recommendations for ensuring sustainable success in university libraries that are operating now in a rapidly changing environment.

**Keywords:** quality management, university library, evaluation, SERVQUAL questionnaire.

**JEL Classification:** I25, L31, M14, O32

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### **Introduction**

The steady concern over obtaining continuous improvement is likely to yield expected results. At the same time, quality, in its threefold status (planning, control, improvement), enables the organization to achieve its objectives.

The provision of services in the university library is an activity focused on satisfying the demands of internal and external users. Among the criteria that fundamentally distinguish service provision from goods manufacturing activities we might include:

- intangibility: services through their very nature are intangible;
- inseparability: the overlapping of services production and consumption in time;
- un-stockability: services cannot be stored for later use;
- variability: the service cannot be repeated identically;
- user-librarian (provider) interaction: the user is physically (online) present.

Experts have proposed criteria for the classification of services. Here are some examples of criteria for the classification of services listed in table no. 1. This view has been supported by Looy, Gemmel and Van Dierdonck (2003).

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**Table no. 1: Service classification criteria**

<b>Classification criterion</b>	<b>Characteristics</b>
Degree of service standardization	Services may be by far more standardized (as opposed to goods that are accessed off the shelf). The service provider can develop a service to suit user requirements.
Degree of intangibility	Intangibility involves operating problems. Intangibles are difficult to standardize. In this case the service quality is dependent on the librarian
Degree of inseparability	Production and consumption take place simultaneously.
Degree of stockability	It is closely linked to the degree of intangibility and inseparability. The management of the operating system affects both employees and users. Example: an operating system can effectively decrease the waiting time for users, but it can also help workers to adopt a flexible approach.
Degree of user interaction	The demand for service is instant, it cannot be stored. In this case, employee training is very important.
Degree of variability	Variability within larger organizations that have extended contact with users is higher. Thus standardization may contribute to reducing variability.
Degree of acknowledging efforts required	Service delivery covers a wide effort range. Therefore hiring, training, rewarding staff should be a priority for human resources management in the case of high-effort services.

*Source: Authors*

Based on a study conducted by Zeithaml, Parasuraman and Berry (1990) on 60 000 respondents it has been demonstrated that services feature the same kind of expectations regardless of service. What makes the difference between one user and another is the importance attached to a number of 10 expectations. In a university library, these expectations might be the following:

1. Responsiveness: promptness of response to user requests (including response to complaints);
2. Courtesy: library staff attitudes towards the user;
3. Understanding: the extent to which the librarian understands user requirements;
4. Degree of understanding: the ability to provide the same quality service every time;
5. Communication: quality of information provided to the user;
6. Competence: knowledge resulting from service;
7. Tangible service features: the state of the natural resources used in providing the service (buildings, equipment, etc.);
8. Credibility: confidence in the services offered by the library;
9. User's physical safety or the security of storing user related information;

10. Access: user's ease in personally or electronically addressing library contacts.

Further research (Androniceanu and Drăgulănescu, 2012) showed that the users, usually, assign different weight to each of these expectations. Thus the library needs to understand its users' preferences.

### 1. Research methodology

To provide a sustainable quality management in an university library, in this paper, we have done an adaption of SERVQUAL questionnaires to the assessment of user satisfaction.

After Parasuraman, Zeithaml and Berry (1998), the SERVQUAL questionnaire is one such technique used for obtaining user feedback. With its help we can determine both the perceived and the expected quality of the service provided including likely differences between them.

The questionnaire features compliance with the prerequisites of a market research tool:

- it can be quickly filled in by users;
- it allows a standard approach to collecting information from users;
- it has a standard analytical procedure to guide the interpretation of results.

The SERVQUAL questionnaires proposed by Parasuraman, Zeithaml and Berry (1998), are used both to investigate user expectations (questionnaires SERVQUAL(E)) and to assess their perception (SERVQUAL (P)). SERVQUAL questionnaires (E) will be distributed before improving the service, in order to acquire appropriate information regarding expectations. After a certain service has been performed, a user has to fill in the SERVQUAL questionnaire (P) that will provide information on perceived quality.

The questionnaire contains 22 questions. According to economics analysts, the assessment of the dimensions of user satisfaction (i.e. service quality) features the following dimensions (RATER):

- reliability (R)-questions 1 to 5;
- assurance (A) -questions 6 to 9;
- tangibles (T) -questionnaire questions 10 to 13;
- empathy (E) -questions 14 to 18;
- responsiveness (reaction speed) (Rs)-questions 19 to 22.

SERVQUAL scoring is to be done in three steps:

**Step 1: Calculation of values for average perception/expectation "x<sub>i</sub>", in reference to question "i".**

For each of the 22 questions, one calculates the value for the average perception/expectation "x<sub>i</sub>", using the formula:

$$x_i = \sum n_{ij} / N \quad i=1 \dots 22; j=1 \dots N^* \quad (1)$$

where: *i* is the number of the questionnaire question; *j*-the number of respondents, *n<sub>ij</sub>* – grade awarded by respondent "j" to question „i", N-number of questions for each dimension, N\*-number of respondents. The evaluation scale ranges from 1-5: grade 1 means strongly disagree; grade 2-disagree; grade 3-neither agree or disagree; grade 4-agree; grade 5-totally agree.

**Step 2: Calculation of perception/expectation average.**

It is calculated for each dimension of the specific service quality:

$R_p$  ( $R_e$ )- reliability perceived or expected  
 $A_p$  ( $A_e$ ) -assurance perceived or expected  
 $T_p$  ( $T_e$ ) -tangibles perceived or expected  
 $E_p$  ( $E_e$ ) -empathy perceived or expected  
 $Rs_p$  ( $Rs_e$ ) -responsiveness perceived or expected

**Step 3: Interpretation of results.**

The service score is interpreted in relation to the amount of difference  $D$  to each dimension.

Thus, if the value obtained:

- $D > 0$  the perceived quality of service is higher than expected quality
- $D = 0$  the perceived quality of service is as expected
- $D < 0$  the perceived quality of service is below expected level

**2. Case study**

A number of  $N^*=100$  **SERVQUAL** questionnaires was distributed to users of the Central Library of the University Politehnica of Bucharest (academics, PhD students, master students and licence students) before and after the administration of the loan service (at home and/or reading room) (*before and after the move to the new library headquarters*).

SERVQUAL questionnaire ( $E$ ) was completed before service delivery in order to obtain information on user expectations *before and after the move to the new library headquarters*. SERVQUAL questionnaire ( $P$ ) was completed by users after the service underwent improvement as compared to year 2015 in order to provide information on the user's perception of the service.

**Calculus of SERVQUAL Score**

*Phase 1:* One calculates the average perception/expectation value „ $x_i$ “, referring to question "i" in the set of 22 questions (table no. 2) and the values have been plotted in figure no.1.

*Phase 2:* Calculation of average perceptions/expectations for each dimension of service quality (reliability, assurance, tangibles, empathy and solicitude) according to table no. 3.

*Phase 3.* One calculates the difference between the average perception and average expectation for each dimension of service quality of (see table no. 3).

According to table no.3 (by analyzing the differences in value of the five dimensions of service quality), it appears that there is an improvement compared to 2015. Nevertheless, particular care still needs to be given to issues of *solicitude* and *empathy*.

**3. Results**

A feature of service delivery in the university library (which determines management peculiarities) is the direct contact between user and librarian.

Therefore, the management should be designed to ensure:

- ✓ an appropriate strategy for services;
- ✓ user-friendly systems;
- ✓ user-oriented staff.

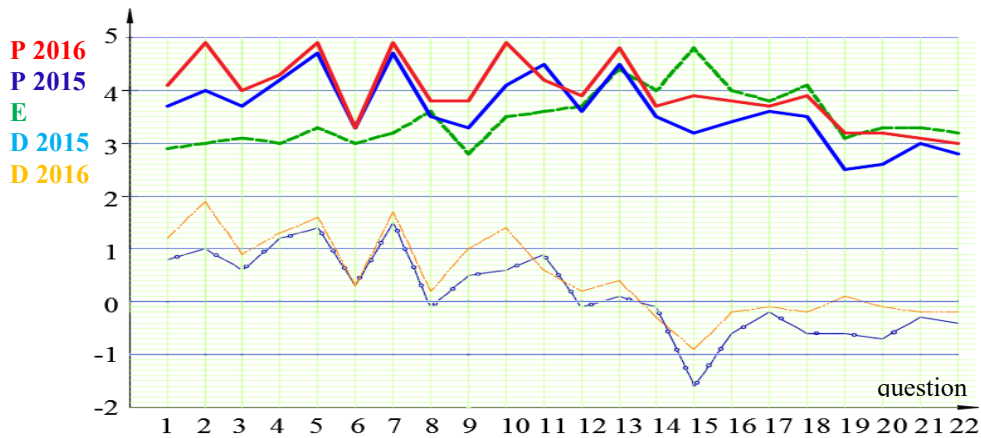
The successful implementation of quality management in the university library services has serious consequences for:

- ✓ an improved market share;
- ✓ efficiency improvement;
- ✓ improvement of service provision and increased user satisfaction.

**Table no. 2: Average perception/Average expectation**

No.	Average Perception 2016(P 2016)	Average Perception 2015(P2015)	Average Expectation (E)	Difference 2015 (D2015)	Difference 2016 (D2016)
1	4,1	3,7	2,9	0,8	1,2
2	4,9	4,0	3,0	1,0	1,9
3	4	3,7	3,1	0,6	0,9
4	4,3	4,2	3	1,2	1,3
5	4,9	4,7	3,3	1,4	1,6
6	3,3	3,3	3,0	0,3	0,3
7	4,9	4,7	3,2	1,5	1,7
8	3,8	3,5	3,6	-0,1	0,2
9	3,8	3,3	2,8	0,5	1,0
10	4,9	4,1	3,5	0,6	1,4
11	4,2	4,5	3,6	0,9	0,6
12	3,9	3,6	3,7	-0,1	0,2
13	4,8	4,5	4,4	0,1	0,4
14	3,7	3,5	4,0	-0,5	-0,3
15	3,9	3,2	4,8	-1,6	-0,9
16	3,8	3,4	4,0	-0,6	-0,2
17	3,7	3,6	3,8	-0,2	-0,1
18	3,9	3,5	4,1	-0,6	-0,2
19	3,2	2,5	3,1	-0,6	0,1
20	3,2	2,6	3,3	-0,7	-0,1
21	3,1	3,0	3,3	-0,3	-0,2
22	3	2,8	3,2	-0,4	-0,2

Source: Authors



**Figure no.1: Graph representation of average perception/average expectation**

Source: Authors

As is shown also in Constantinescu (2005) and Suci et al. (2011), the organizations that providing service, need to implement an approach that takes into account the specific peculiarities of quality management, for example the "Conceptual Model of Quality

Services" (CMQS). CMQS highlights the factors that influence the quality of the expected service as well as the process that determines the quality of the service as it is perceived (figure no. 2).

As shown in figure no. 2, the causes of the discrepancy between the expected and perceived quality of the service provided (lacks or shortages) are mainly generated by internal library factors. Improving the quality of the service rendered requires the identification of the factors that cause lacks and the finding of solutions for eliminating them.

As was shown graphically in figure no. 2, we identified these gaps, named L:

L1 occurs when there is a difference between the management perception with respect to user's expectations and demands, and the service expected, when one is ignorant of the user's expectations;

L2 is triggered by the difference between the management perception with respect to user's expectations and demands and the specifications of the service quality when the standards for service quality are inappropriate;

L3 occurs when there is a difference between the service quality specifications and service delivery in the case of service failure;

L4 occurs when there is a difference between (internal and external) user communication and service delivery when the service does not match promises;

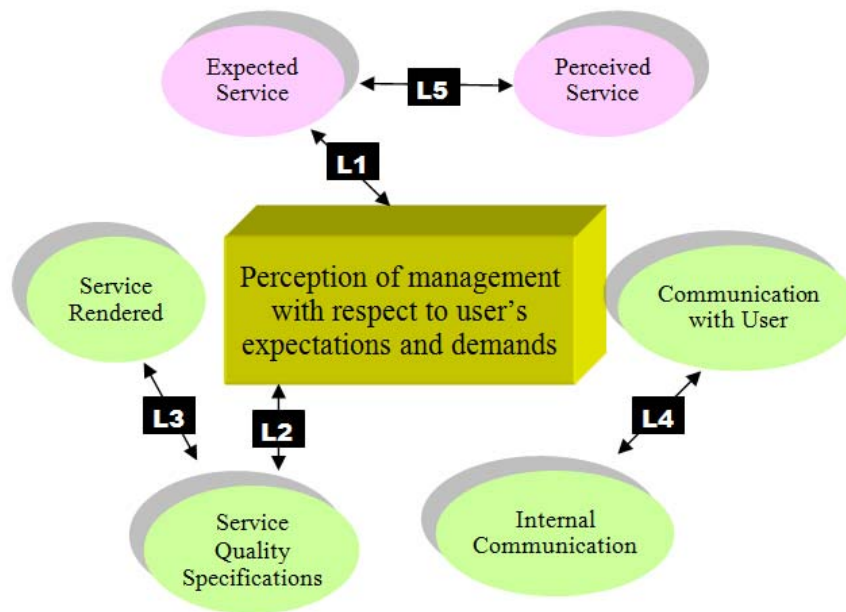
L5 occurs when there is a discrepancy between the expected service and perceived service.

**Table no. 3: Average perception/expectation values**

Perception level		Expectation level			SQ=P-E	
Perception average values	Average perception	Average expectation	Expectation average values			
Reliability	4,440	4,1	2,9	Reliability	3,06	1,380
		4,9	3,0			
		4	3,1			
		4,3	3			
		4,9	3,3			
Assurance	3,950	3,3	3,0	Assurance	3,150	0,800
		4,9	3,2			
		3,8	3,6			
		3,8	2,8			
Tangibles	4,450	4,9	3,5	Tangibles	3,800	0,650
		4,2	3,6			
		3,9	3,7			
		4,8	4,4			
Empathy	3,800	3,7	4,0	Empathy	4,140	-0,340
		3,9	4,8			
		3,8	4,0			
		3,7	3,8			
		3,9	4,1			
Solicitude	3,125	3,2	3,1	Solicitude	3,225	-0,100
		3,2	3,3			
		3,1	3,3			
		3	3,2			

Source: Authors





**Figure no. 2: Drawing a critical path factors (L1 ... L5) causing gaps in the work of a university library**

*Source: Authors*

### Conclusions

An important role pertains to staff training as well as their behavior. The user often evaluates service quality based on the librarian's ability to grasp the user's preferred type of interaction.

The selection and training of customer first team who are in direct contact with users has great significance. The users' feedback and complaints may be taken as a starting point if the library plans to improve its services. It is never possible to make all users happy, no matter how high the service quality is. Yet, there must be some tolerance zone for acceptable service. From the analysis of questionnaires, some of the users' complaints seem to suggest the need for:

- ✓ improved internet connection (more efficient location of Internet outlets);
- ✓ longer lasting/more durable reader permits;
- ✓ more internet cables;
- ✓ switch to Wi-Fi connection;
- ✓ internet supply in individual cabins;
- ✓ more efficient air-conditioning in reading rooms during summer;
- ✓ more lecture halls opened during the exam session;
- ✓ more kindness from the staff;

- ✓ shorter time for processing doctoral theses.

The SERVQUAL Questionnaires represent a model for improving service quality from the user's point of view, starting from the discrepancy between the perception and expectations regarding the service to be rendered. The measurement of this discrepancy takes into consideration five dimensions: reliability, assurance, tangibles, empathy, solicitude.

The analysis of users' satisfaction is the basis for finding procedures of continuously improving service quality. One approach needed to ensure continuous improvement of user satisfaction is the use of the "Conceptual Model of Quality Service".

The degree of user satisfaction can be measured by different methods. Example: SERVQUAL questionnaires.

The Quality Management system should take into account the issue of human resources commitment in:

- creating an appropriate environment;
- considering human relations as an essential part of service quality (user-person in direct contact with the user);
- recognizing the importance to be given to the user's perception of the image, culture and achievements of the library;
- developing the qualification and capability of library employees;
- motivating employees.

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## **NEW TRENDS OF BUSINESSES DIGITALIZATION IN ROMANIA AND THE BEHAVIOUR YOUNG CONSUMERS**

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### **Abstract**

The digitalization of business has become a reality worldwide, and companies must respond to the imperative of using digital media to interact with customers and business partners, so as to retain their relevance in a market marked by digital technology. The purpose of the research was to know and analyze the views of young people about changes in perception and behaviour determined by social and economic digitalization. Also, we intended to investigate the intensity of resistance to changes brought by the digitization of the market for goods and services, but also motivational factors that change the behavior of young people from Romania in a digitized society.

The methods used in this research were: online questionnaire, comparative and correlative analysis. For data analysis we used specific tools for automatic processing with setting pivotal data. The results of our research show that the business environment in Romania is adapting to the digital society. However, there are major changes that should still take place further in society and business. Our research base was composed by 1000 young students and graduates of higher education who received our questionnaire online. The response rate was 38.3%, that means that 383 filled in the questionnaire.

The results show that young people in the target group have confirmed their maximum receptivity to products and services of the digital society. They are receptive and motivated to exploit the advantages of the digital society. Our research has revealed that their behavior will adapt further depending on the digital service offers by organizations and the means they will use to promote digital products and services. The results of this research are interesting and useful both for companies operating on the Romanian market, but also for redefining government policies.

**Keywords:** digitalization, business environment; change; customer behavior.

**JEL Classification:** L1, M1.

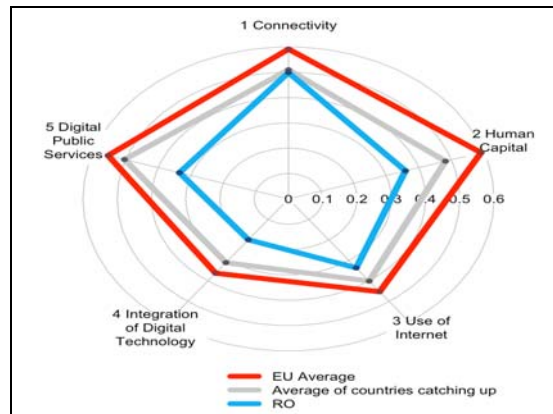
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## **Introduction**

Nowadays, increasingly more aspects of every day life are captured and stored in digital form. The result, is a real-time exchange of information between interconnected tools, fixed or mobile. More and more organizations seek to identify a pattern of consistent and relevant interaction by integrating all channels. This process requires an agile strategy, which enables the adoption of the latest technologies and channels, calibrating the whole process while operating, by testing and feed-back from target groups (Bayar, 2016). Economic and social activities can not be conceived anymore without the inclusion of IT&C elements that contribute significantly at increasing the competitiveness and business development (Androniceanu, 2017). To support the progress of Romanian society comes the National Strategy regarding the Digital Agenda for Romania, elaborated by the Ministry for Information Society (ministerul pentru societatea informatională), in accordance with the European Digital Agenda, which aims at developing the Romanian IT&C sector, increasing efficiency, and reducing public sector costs (Androniceanu, 2015). An important benefit of the implementation of Romania's Digital Agenda is increased productivity in the private sector due to the reduction of administrative barriers and improving competitiveness of the workforce (Androniceanu, Ohanyan, 2016). Another effect of digitalization is an increased competitiveness coefficient. The competitiveness of a country refers to its ability, compared to others, to ensure an economic and social environment that supports the accelerated creation of added value (Virglerova, Dobes, Vojtovic, 2016). Digitalization creates accelerated added value. Using digital technology facilitates improved business performance (Androniceanu, 2017). Digitalization has an impact on consumer behavior and experience, streamline sales processes, reformats existing business models or formulates new ones. For Romania, digitalization is an opportunity to increase the competitiveness of companies active on the Romanian market (Lăzăroiu, 2015). Through research that underlies this work we have identified several elements of behavior profiles and expectations of young people aged 20-26 years (Generation Y) who expect appropriate behavior from the digital society and diversified and attractive digital products and services at an affordable price.

## **1. Literature review**

Digitization is the effect of the Internet revolution and technological changes. For every industry this can mean something different, but the benefit is for the entire ecosystem, business or social. In the business environment there are more and more intensive discussions about how business models can be changed in a world where digital technologies cause major changes in various markets. According to the European Commission, Romania is ranked last (28), depending on the economy and information society index (DESI), as can be seen in figure no. 1.



**Figure no. 1: Comparative approach of composite index on digitalization in the EU si Romania**

Source: European Commission, 2016

This composite index integrates a set of relevant indicators, structured around five dimensions: (1) connectivity; (2) human capital; (3) Internet usage; (4) the integration of digital technology; (5) digital public services. **Connectivity** refers to the coverage, speed and number of subscriptions in fast broadband. The coverage ratio of households with fixed line broadband is low (89% in Romania compared with 97% in the EU). The coverage by the network of next generation access (NGA) in Romania is 72%, similar to the EU average (Valter, Androniceanu, Dragulanescu Duca, 2016). Regarding the number of subscriptions to fast broadband (speed over 30Mbps), in Romania the percentage is 63%, 30% above the EU average (Popescu, 2016).

**Human capital** refers to the digital literacy of the population and the workforce in the field of information technologies (IT specialists 100,000). Statistics show that only 52% of Romanian use the Internet regularly (compared to 76% in the EU) and 32% have never used the internet (compared to 16% in the EU). Internet usage refers to the number of internet users in Romania, which increased mainly due to a greater participation of the population on social networks (Popescu G. N., Popescu C. R. Popescu V. A., 2016).

**Integrating digital technology** refers to the integration of information and communication technologies in the online services so they can be accessible to the population. Romania recorded results below the EU average and the progress is limited (Nica, 2016). Lack of budget at company levels, and the lack of confidence of the great mass consumers in online services, lack of a proper legal framework for the management of potential disputes between companies and consumers, and other concerns regarding encrypted communications and payments, leading to a poor rate of integration for digital technologies by companies and the banking system.

**Digital public services** in Romania are below the EU average, but significant progress is expected, especially by promoting an open data policy (Open Data type). Software companies in Romania are developing new design tools that facilitate the creation of electronic content (Burlacu, S, DS Grigorescu, Stefan, C., C. Popescu) However the use of e-government is the lowest in EU only 8% of users interacting with public authorities by submitting completed forms (Popescu CR, Popescu NG, Popescu, VA, 2017).

A global survey conducted by the consulting company Cap Gemini shows what the benefits of digitization in a company could be: increased profitability (EBIT) by 9-26%, increase asset utilization efficiency of 6-9%, and increase in the company's value by 7-12%. Given the fact that in 2015 the total turnover of the companies active in Romania was 275 billion euros, of which 500 top companies generate about 110 billion euros, by digitizing companies that value could increase by 2-5 times in the coming years which would produce a domino effect in other dimensions discussed above, particularly in terms of human capital and the integration of digital technologies. The DESI (Digital Economy & Society Index) report points out that Romanian organizations will find it difficult to compete in the global digital market, unless they use more e-commerce applications and cloud computing. Only 7.4% of SMEs sell online in Romania and only 1.9% of them sell online in other Member States. According to the DESI report, Romania belongs to the group of countries which are in a recovery phase in terms of the digital divide (LV, CY, IT, HR, SI). Romania is above the EU average in access to Internet, high-speed national networks offering speeds of 30Mbps to 72% of households, the EU average being 71%. A Commission report for 2016, stated that Romania has made most progress in the area of connectivity, finishing in 23rd place among member states (Andrew Galupa, Androniceanu, Georgescu, 2016). Currently, 59% of fixed Internet subscriptions are subscriptions to fast Internet connections, compared to 54% in 2013, which places Romania in second place, from this point of view, according to the document. The DESI report notes that Romanian companies will have difficulties in competing in the global market digital, if they do not use more e-commerce applications and cloud computing (Becerra, Androniceanu, Georgescu, 2016). Government services in Europe are being upgraded and transferred in the online environment for increased accessibility by people and companies, across borders, within a large-scale project that could result in savings of billions of euros over the coming years. For Digital Public Services Romania scores 0.33 in 2016 (up from 0.27 in 2015) and improved its ranking to the 27<sup>th</sup> position, as it can be seen in table no. 1.

**Table no.1: The digital public services in the EU compared with Romania**

Digital Public Services	Romania		Cluster	EU
	rank	score	score	score
DESI 2016	27	0.33	0.5	0.55
DESI 2015	28	0.27	0.45	0.54

*Source: European Commission, 2016*

In Romania, 41% of consumers are already digital consumers. These consumers search for information online and have easy access to information, and they can verify the veracity of marketing messages by accessing multiple sources, thus choosing the channel they wish to purchase from. In this context, 62% of consumers are getting informed exclusively online about the desired product or service, the buying decision is 56-67% based on advice given by friends and acquaintances, and only 21% are influenced by brand loyalty. Seeing how digitization is becoming more and more present in the business environment, not just the transformation in consumer behavior, but also the adoption of new technologies, tools and applications is highly disruptive, with an immediate impact on the activity of all companies. The next section of the paper contains the results of a research study focused on *the*

*behavior of young Internet users, who have already become consumers of digital products and services.*

## **2. Survey on new trend of digitalization and the young consumer`s behavior**

In this context marked by major and profound changes in the business environment, we conducted a research in which we intended to understand better the openness and receptiveness of young people on the digitization of Romanian society. The research had as target group young Romanians, aged between 20-26 years. Our research base was made up of 1,000 young students and university graduates. The number of subjects who directly participated in our research was of 383 people. Of these, 142 people were aged 18-23 years; 130 subjects aged between 23 years and 26 years and 111 people were over 26 years, but not more than 30 years. The response rate was 38.3%. Of the 1,000 people who formed the basis of research, only 450 have accessed the online questionnaire and 383 of them responded to the online questionnaire we proposed in this research. The research was conducted between February 27 to March 10, 2017.

### **2.1. Purpose and research objectives**

The aim of our research was *to know the profile of young people in relation to the demands of the digital society and analyze their views on digital media and changes in behavior in the context of extending digitization in Romania*. Also, we proposed to identify and analyze the main needs of young people which can be satisfied by the digital society, and the *motivational factors* that may cause changes in their behaviour as consumers of digital products and services.

### **2.2. Research hypotheses**

The main hypotheses were as follows:

Hypothesis 1: The young Romanians are willing to integrate in a digitized society and they have the appropriate profile.

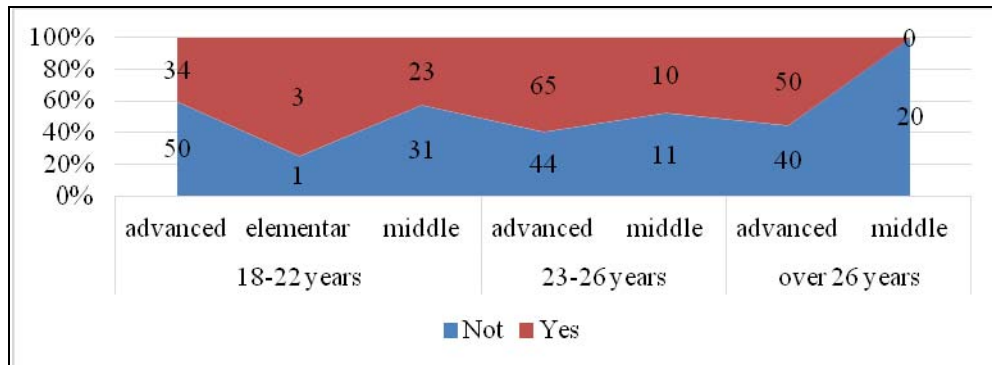
Hypothesis 2: Young Romanians are motivated, responsive and flexible in their behavior as consumers of products and services offered by digital society.

### **2.3. Main results and analysis**

The research was conducted in two distinct phases: (1) investigating the respondents' profile: qualities, knowledge, skills and abilities necessary for a consumer of digital products and services; (2) investigating youth behavior in a digital society and discovering the motivational factors of changing their behavior as consumers of digital products and services.

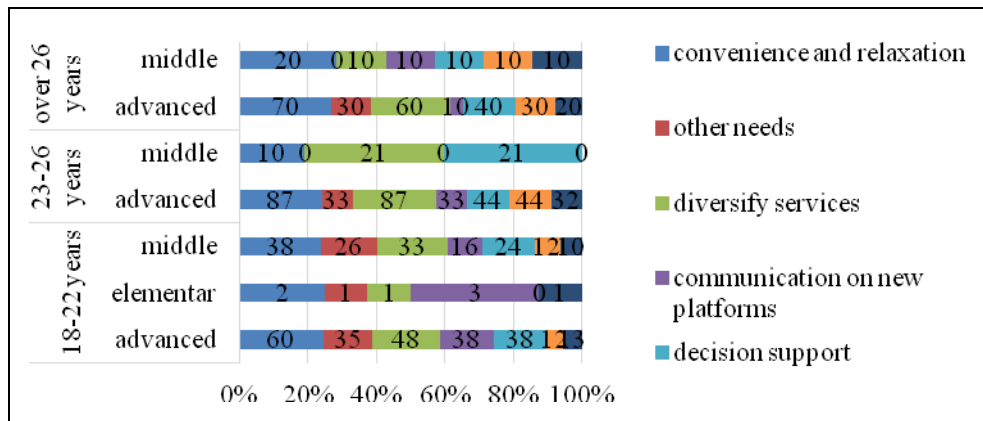
In the first stage, the research has shown that, most respondents aged up to 26 years believe that they have the knowledge, qualities, abilities and skills to an advanced level for using information and communication means (internet, computer, tablet, smartphone, etc.). The research also showed that experienced respondents, regardless of age, stated that rapid access to information is the main advantage of digitization, followed by quick access to various services. Noteworthy is the large number of respondents aged over 26 who abstained to indicate a primary advantage of digitization. The research results indicate that information, socializing, reading correspondence, doing shopping, some financial services, trade, health are the main reasons for accessing the Internet in equal proportions.

In the second stage of the research process we obtained interesting results which helped us to verify the two hypotheses. Regarding consumer willingness to make some changes in their behavior to adapt to a digitized society, as can be seen in figure no. 2, the research revealed that most of the young people involved in this research wish to make changes in their behavior as services consumers. The research also showed that most respondents had qualities, knowledge, skills and abilities required for the use of means to work within a digitalized society: Internet, tablets, smart phone, sites; social networks, etc. These results confirm the first hypothesis of the research.



**Figure no. 2: The desire of consumers to make some changes in their behavior to adapt to a digitized society**

In figure no. 3 we can identify the main needs that determine the respondents to make changes in their behavior, consumer of products and digital services.



**Figure no. 3: The main needs that determine consumer behavior changes in a digitized society**

It can be ascertained that there is a diversity of needs that really motivate young people to show responsiveness to the majority of changes brought by the digital society. Also, our results reveal major motivational factors that lead to youth behavior change, for increasing their receptivity towards digitalization. A synthesis of research findings related to



motivational factors is presented in figure no. 4 thus confirming the second hypothesis of the research.

The diversity of motivation factors considered in the process of research shows the availability of Romanian youth, to integrate within a digital society, and to use its advantages. These results show that the digital society is desired by young Romanians and will be harnessed by them in order to satisfy a variety of personal, social and professional needs.

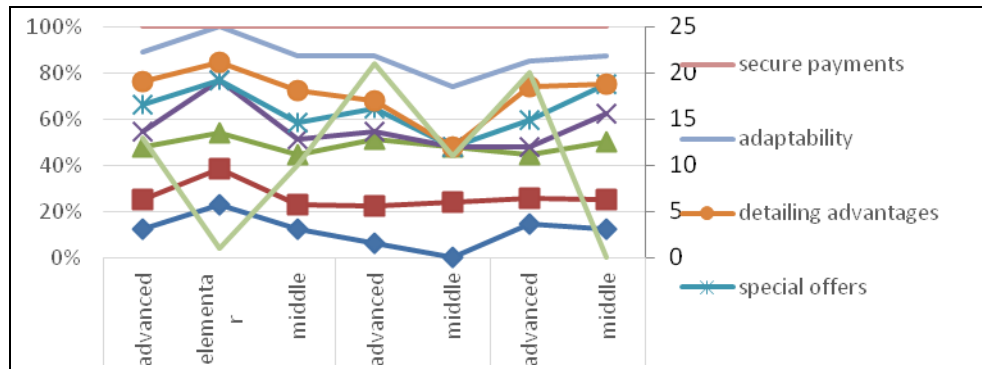


Figure no. 4: The main motivational factors for changing the behavior of young consumers of digital services

The results of our research show that the digitalization of economic, social, banking, education etc. activities will cause major changes in youth behavior. Also, the results of our research highlight that young Romanians want to make these changes in their behavior as consumers of digital services and products, and show maximum responsiveness to all the advantages of digital technology. The profile of training of young Romanians to live in a digitalized society is adequate, and the various advantages of the digital society motivates them to adapt their behavior further for integrating into the new social, economic, informational system that comes with the digital society.

### Conclusions

Digitalisation has become a priority for all industries amid rapid technological advances, changing business models. Digitalization in people's personal lives has already begun through smartphones, fast Internet connections and increasingly more mobile content is being consumed. Now is the time for businesses to adapt to these changes. Our research has shown that young people are prepared to integrate into the digital society, and are open to receiving diverse and attractive offers from the business environment.

Our research confirmed that young people want to move from communicating through Facebook, Instagram or Snapchat to the use of diversified applications created by different companies through which people can make shopping easier by paying with their smartphone. Our analysis showed that businesses with a turnover of hundreds of millions of euro are struggling to keep up with technological changes and try to become more present in the eyes of consumers, to be closer to them, thus strengthening their image.

The “digital” is an essential component that has changed and will continue to radically change the way business is carried out in Romania. Large companies have already created

specialized departments with digital experts who grew their brands recognition in social media. The budgets of large companies operating in Romania have tripled in the past three years, which confirms that digital products and services will develop and diversify further at a rapid pace in the Romanian market.

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## CORPORATE SOCIAL RESPONSIBILITY AND ECONOMIC AND FINANCIAL PERFORMANCE OF AN ENTERPRISE

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### **Abstract**

Corporate social responsibility (CSR) has become, in recent years, a central topic more often to the attention of authorities, private sector and society. After joining the European Union, the implementation of responsible business practices in Romania began to grow. Multinational companies were the main engine, companies that have transferred their organizational practices and culture at local level. After joining the European Union, in Romania and in other EU member states, has developed "responsible industries", namely companies that have developed a business objective in activities that are in benefit to the environment and / or communities and their "responsibility" has an indirect result from their goods and services they provide. Although in Romania the development of the CSR field is still in early stage, many of the leading companies in this field are understanding the value of a robust strategy of CSR, aligned and integrated with the values and key operations of the business, strategy that translates into tangible action programs and sustainable success. The purpose of this article is to find a clear definition of CSR and to analyze if the CSR activity can ensure the performance stability of an enterprise, in case there are changes of ownership.

**Keywords:** CSR, economic, environment, shareholders, competition, safety, integrity

**JEL Classification:** M14

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### **Introduction**

Responsibility (CSR) is an influential factor in the activity of companies, as it will bring a contribution for increasing the confidence in the market of the company.

CSR occurs within corporations through three major categories of actions: actions on Health and Safety - which are institutional actions, actions on Competition and actions on the Integrity. The implementation of these policies in the company will lead to its listing as a responsible company by the social point of view.

In the first part of the article we have tried to identify a definition of CSR. After many efforts to find an impartial definition and to provide greater accuracy we found that, there is still confusion regarding the definition of CSR. The analysis would reveal the existence of

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five dimensions on corporate social responsibility and it will show shows that existing definitions are largely congruent and the confusion is not about how CSR is defined, but how CSR is built in a social context. In the second part of the paper we made a comparison between two companies that, in a certain period of time, suffered changes of shareholding. In our analysis we aimed to identify the impact of these changes on their performance, respectively on the manner how the CSR activity can provide stability, to a certain proportion, of these returns.

### **1. Literature review - definitions and theories on CSR**

Both in companies and in the academic world exists uncertainty regarding the definition of CSR. Some say "I searched for a definition and there is none" (Jackson and Hawker, 2001). This is not exactly true. The problem is that there are an abundance of definitions which are, according to Van Marrewijk (2003), biased to some specific interests and this prevents the development and implementation of the concept.

Unfortunately, any attempt to develop an impartial definition is a challenging work, because there was no way to verify its impartiality. Even if an impartial definition would be developed, it would still need people engaged in corporate social responsibility for it to be applied and the confusion to be solved. However, is it possible to study the similarities and differences between the offered definitions. They are divided into five dimensions and it would be able to study how CSR is understood, because of the given definitions.

The method applied for the CSR understanding consists in 3 steps and in the article „How Corporate Social Responsibility is Defined: an Analysis of 37 Definitions”, Alexander Dahlsrud explained the steps in detail. The first step was to gather all the definitions through an analysis of the literature of specialty. In the second step, five dimensions of CSR were identified through a content analysis of definitions. Based on this, a coded scheme has been developed and applied to get an overview on the relation between definitions and dimensions. In the third step, calculating the frequency of Google of all definitions relating to a specific dimension has been used to calculate the relative use of each dimension.

For illustration, there were found and analyzed 37 definitions of CSR. They were extracted from 27 authors and cover the period between 1980 and 2003 although most definitions have been published since 1998. Most definitions have their origins in Europe and America, but were found also definitions from India and Canada.

Analyzing definitions, it became apparent that it concerned the same dimensions of CSR. Thus, sentences which related to the same dimension were grouped together. This process identified five dimensions that were named to reflect the content phrases. The table no. 1 shows the coded scheme, the five dimensions and examples of phrases that refer to the same dimension.

**Table no. 1: The five dimensions of CSR**

DIMENSIONS	THE DEFINITION IS CODED TO THE DIMENSUIN IF IT REFERS TO:	EXAMPLE OF PHRASES
The dimension regarding the environment	The natural environment	"cleaner environment"; "administrator regarding the environment"; "environmental concerns into business operations"
The social dimension	The relationship between business and society	"integrating social concerns into business operations"; " considering the main purpose of their impact on the community"
The economic dimension	Socio-economic and financial issues, including the description of CSR in terms of business operations	"the contribution to economic development"; "the conservation of profitability"; "Business operations"
Dimension regarding interested parties (stakeholders)	Stakeholders or stakeholder groups	"the interaction with their stakeholders"; "as organizations interact with their employees, suppliers, customers and communities"; "treating the stakeholders of the company"
Dimension regarding volunteering	Shares unprescribed by law	"based on ethical values"; "more than legal obligations"; "volunteering"

Source: article „How Corporate Social Responsibility is Defined: an Analysis of 37 Definitions”, Alexander Dahlsrud

The frequencies were obtained by searching every definition on Google. A dimension score was calculated by adding the frequency of every dimension specific definitions. The results were: the highest 4 score dimensions have the dimension rate more than 80% (the dimension regarding stakeholders, the social dimension, the economic dimension, dimension regarding volunteering), although it is worth mentioning the fact that the environmental dimension has low levels, of 59%. However, the all dimensions reach rates dimensions of over 50%, which indicates that they are more likely not be included in a random definition.

Further, the consistency of the definitions was studied by analyzing each different dimension in how many definitions has been used. Again, this was analyzed by using the frequency calculation with Google. From the study resulted that 8 definitions, representing 40% of total frequencies include all 5 dimensions. Even more interesting is the fact that for 3 or more dimensions these numbers increase by 31 definitions and 97% of all frequencies.

## 2. The relationship between CSR and the size of the capital appreciation of shareholders

In a perfect market, characterized by fulfilling the assumptions of CAPM model (Markowitz 1952; Sharpe 1964), the managers who have as main objective to maximize the profit do not invest in the risk management, because the extra costs towards the losses already expected by the company, to reduce the idiosyncratic risks, lead to the reduction of the expected returns (firm value), while they do not lead to the risk reduction, reduction made by other investors simply by having a diversified portfolio of securities.

However, on the real market, businesses are investing in risk management (e.g. fire insurance), even if these investments come at a price exceeding the expected loss, because

reducing the risk leads to the increase of the shareholder’s capital appreciation. An example would be that the coverage against risks protect the shareholders against unproductive financial costs in a way that investors cannot achieve it on the market. If managers can reduce the company exposure to specific risks, risks against which the investors can not cover by diversifying the portfolio, then is brought an added value through risk management.

The corporate social responsibility is just one of many signals that shareholders use in determining the orientation of the company. Even if, from a macroeconomic perspective, the company's goal, on a capitalist market, is the profit maximization, its fulfillment requires a high degree of exigency in the firm behavior. These aspects belie the opinion according to that CSR can give birth to the signal that the enterprise is fully or substantially altruistic in its guidelines, such as lack of the profit motivation. CSR, at most, can give a signal that managers can, do or take into consideration also other social issues in the decision making. It can be called moral capital.

There are two aspects of social responsibility activity that may cause such signals. First, the company's work must be published, by internal or external reports on its situation. Secondly, CSR activity must be credible and reasonable, capturing media attention or other external assessors.

Companies, with no activity of CSR, lack of this form of goodwill amortization, being exposed to potential effects with greater impact. In this case, the activity of CSR serves as a signal to the investors about the likely reactions of other key stakeholders. The types of events that may have a negative impact on the company's activity can be classified according to the table no. 2.

**Table no. 2: Types of events that may negatively impact the company's activity**

Category	The type of event
Competition	Competitive conspiracy; Antitrust charges; The counterfeiting or the infringement of a patent or license; Allegations relating to price fixing methods
Actions related to safety / health	Charges related to damage/health problems to consumers; Product safety problems; Problems in quality control; Events related to environmental protection/pollution
Actions based on integrity	Allegations of discrimination; Allegations of fraud; False charges/distrust; Allegations of bribery

Source: article „How Corporate Social Responsibility is Defined: an Analysis of 37 Definitions”, Alexander Dahlsrud

For our analysis, we chose two companies, which at one moment in time, both have undergone major changes in terms of shareholding.

The first company is an important unit in the petrochemical industry in Romania, which has grown significantly since 1990, whose shares are traded on the Bucharest Stock Exchange, I trading category. The company complies with the rules of transparency set by the Capital Market Law no. 297/2004. The company has a share capital of 34.321.138,30 lei and a total number of 343.211.383 shares at a nominal value equal to 0.1 lei.

Short description of the company with regard to products, sales and foreign markets:

- The only producer of PVC, polyether polyols, plasticisers (dioctyl);
- About 37% is the share of PVC in total sales;

- 80 is, at present, the number of countries where the company's products are marketed;
- 300 global partners guarantee the professionalism;
- 78% of total sales represent deliveries on foreign markets;
- 23.0% of export is heading to the Middle East (including Turkey);
- 39.6% is the share of Central and Eastern Europe in the total exports;
- 33.8% represents exports to Western Europe;

The second company is one of the few multinationals in Italy in terms of food industry and a global player in the production and distribution of essential life food for every day: milk, dairy products (yogurt, sauces based on cream, desserts and cheese) and fruit juices, which generated revenue of nearly 5,6 billion Euro in 2014. This multinational has over 16,000 employees in Europe, America, Africa and Australia. The company is present in 17 countries with 73 factories, in 9 countries with license agreements and is listed on the Italian Stock Exchange since October 6, 2005.

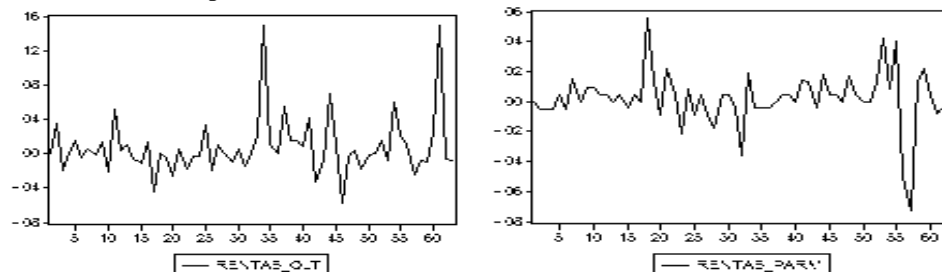
In our analysis, we have taken into account the change of shareholder's firm value, represented by the shares return of the two companies, over a period of three months, during which both companies suffered shareholding changes.

A share of the first company, at the beginning of the reviewed period, was traded on the market with 0,2 lei, at the end of the period the quotation reaching 0,338 lei and in the market, were made transfers worth 43.000 euros. The increases were fueled on the stock exchange by speculation on commencement of the privatization of the company by the state and, in this sense, at the midterm review period, the first company issued a series of 187.523 new shares.

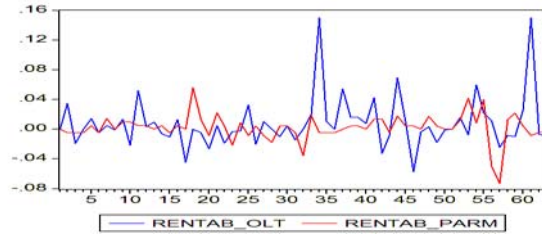
Regarding the second company, on the midterm review period, another group announced a stake taking over of approximately 15,3% of the company's share capital, at a price per share of 2,80 euro. Following this, the direct and potential stake of the group over the company is around 29% of the total capital of the Italian company.

These events are reflected in the evolution of the price returns of the companies in the market (rentab\_olt – the first company and rentab\_parm - the second largest), as shown in the graphic no. 1.

**Graphic no. 1: The evolution of the two companies returns**

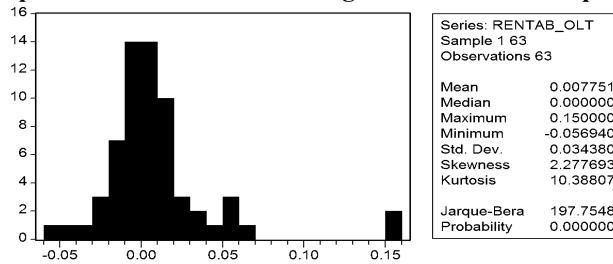






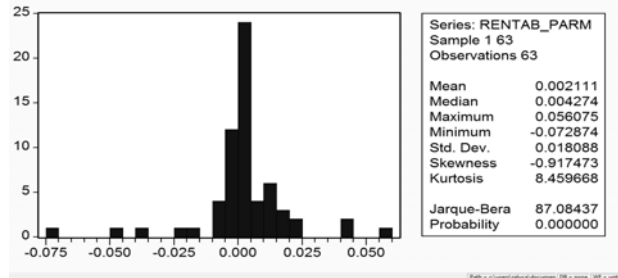
By analyzing the shares return histogram of the first company, shown in the graphic no. 2, in the analyzed period, we see that the average is 0,007751, with a standard deviation of 0,034380. Also, the asymmetry coefficient is 2,277693, significantly different from 0 and the flattening coefficient of 10,38807 is significantly different from 3. All these indicators reflect the fact that lately the shares return was not normal distributed, with the possibility of unexpected returns.

**Graphic no. 2: The returns histogram of the first company**



By analyzing the shares return histogram of the second company, shown in the graphic no. 3, in the analyzed period, we see that the average is 0,002111, with a standard deviation of 0,018088. Also, the asymmetry coefficient is 0,917473, significantly different from 0 and the flattening coefficient of 8,459668 is significantly different from 3. Also in this case, the indicators reflect the possibility of unexpected returns, because the returns are not normally distributed.

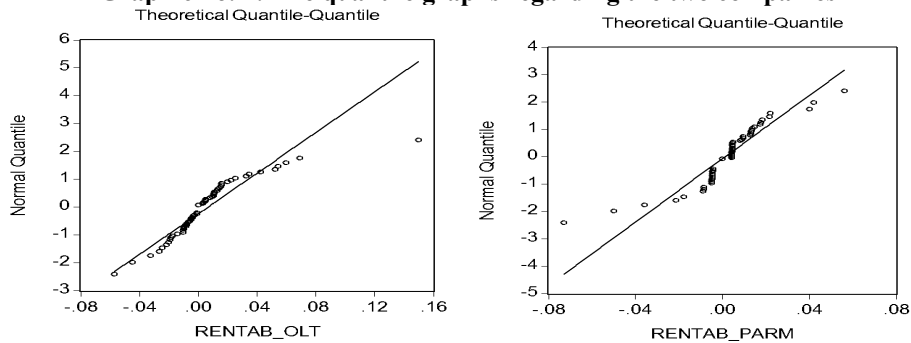
**Graphic no. 3: The returns histogram of the second company**



But unlike the first company, in the case of the second company, the unexpected gains are not so high because the average is closer to zero. The same can be observed in the quantile

graphs (graph no. 4). The returns of the no. 2 company (rentab\_parm) are closer to the median compared to the returns of the company no. 1 (rentab\_olt).

**Graphic no. 4: The quantile graphs regarding the two companies**



The change in the shareholder’s value firm, represented by shares returns courses, is the unexpected component in the evolution of the company activity. The rates are fluctuating daily, due both to market conditions and to various events within the firm.

The first columns of the table no. 3 are measuring the correlations between discrete variables and CSR. The results show that multicollinearity between variables does not have a significant influence on return. Also, we note that there are also positive correlation between CSR activities (Competition, Health / Safety, Integrity) and the unexpected return, but is no correlation between CSR and Market-to-book ratio. CSR activities help both companies with a high level of Market-to-book ratio and the companies with low levels of it. For large firms, the conduct of social responsibility activities proves to be beneficial, while for small firms only the institutional activities type (Health / Safety) can have such an effect.

**Table no. 3: The static information regarding the two shares**

	The average of returns	Standard deviation	Return rate	Market-to-book ratio	The average return (CSR)		
					Competition	Health / Safety	Integrity
First company shares	0.007751	0.034380	-16.68	2.375444	0.3146	0.2977	0.3876
Second company shares	0.002111	0.018088	20.00	22.40794			

Some studies in the social responsibility field invoke also the quality of management as a decisive factor in the application of CSR policies. However, the quality of management, in its most powerful form, contradicts the usefulness of CSR. The apparent value it comes as a result of the fact that the investors interpret the company's social responsibility policies as a signal of the quality management existing in the company.

## **Conclusions**

The dimension regarding the environment, in the definition of corporate social responsibility (CSR), received a very low rate compared to other dimensions. One explanation could be that the environmental dimension was not included in the older definitions and this may have influenced the current definitions not to be processed neither by those. Another aspect is that the environmental dimension is not explicitly included in the definition, although it is considered a part of CSR. This is revealed by the World Business Council for Sustainable Development (WBCSD), which differentiates "corporate social responsibility" of "corporate environmental responsibility." If the frequencies offered by WBCSD definitions were integrated into the environmental dimension then the dimension ratio would have increased from 59% to 85% and in this case, could be compared to other dimensions.

Based on the dimension rates, are more than 50% chance that any of the dimensions to be included in a random definition. Thus, all dimensions are necessary to understand how CSR is defined. The analysis shows that there is a 97% probability that at least three of the dimensions to be used in random definitions.

The definitions provide no description of optimal performance or how it should be balanced these impacts in the decision making. However, they describe the process by which optimal performance can be established. The dimension on volunteering implies that business should be conducted over the usual requirements, which will provide a minimum level of acceptable performance. But which is the performance optimum over the usual requirements or when there is no demand? The definitions answer to this question pointing to the stakeholders. The balance between the often conflicting concerns of the stakeholders is a hard task and the definitions provides vague phrases describing how such of these concerns have to be resolved. Thus, the only conclusion that can be drawn from the definition is that the performance optimum depends on the business stakeholders.

It is interesting to note that the definitions do not really express social responsibility of the business, but describe CSR as a phenomenon. This could be the cause of the definition confusion: it is not a confusion how the CSR should be defined, but rather what is the social responsibility of a business.

The definitions show that CSR is nothing new at the conceptual level. Business always had social, economic and environmental impact, and were concerned with the stakeholders and shareholders with the rules. However, at the operational level, things are significantly different. Due to the globalization, the context in which business operates is changing in an alert rhythm. The new stakeholders and different national legislations have new expectations regarding businesses and are changing the way the social, economic and environmental impacts should be optimally balanced over the decision making. Thus, in this context, the CSR management tools are needed, in addition to the established models, to develop and implement a successful business strategy.

In short, the social responsibility policies implemented by some companies do not provide a degree of protection to all the companies on the market. This protection depends on certain constraints, such as company size, company stakeholders informing transparency and the management quality. However, the most important may be considered the fact that this protection is a institutional type and, therefore, it addresses more to the secondary stakeholders, while social responsibility activities of technical type is orienting their results to the main partners of the firm. Therefore, the implementation of CSR activities of

technical type will bring benefits only to large companies, while institutional social responsibility type will bring benefits to all companies, regardless of size.

Perhaps, the most important result of the study is that we have demonstrated that the market in Romania is more unstable than in other states, reacting with a much higher intensity to the changes of shareholding or to corporate capital. If in Italy, buying 15% of the share capital of a company had lowered the price of a stock, in Romania, a supposed privatization of a state company leads to the increase of the prices by over 70%. Our research has some limitations, because we have analyzed only 2 companies in 2 different countries, but a more exact research should be done with information from at least 2 companies each country, which at one moment in time, had undergone major changes in terms of shareholding.

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## **GREEN ASSET MANAGEMENT – A REVOLUTION?**

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### **Abstract**

Sustainability and eco friendliness resound throughout the public in all areas of life. Notably, this green trend has remarkably evolved in the last five years, supported by the concept of the Green Economy – a combination of profitability and ecological sustainability introduced at the Rio+20 Conference in 2012. This paper deals with the question of whether the trend has reached the capital markets, and thereby, whether the performance of ethical or eco-friendly funds has improved in the last five years. After a short review of the released literature, the authors determine criteria for the empirical research including financial performance figures, correlations and chart analysis in order to compare sustainable investments to the benchmark of conventional investments. Finally, the authors identify the challenges of the empirical research regarding sustainable.

**Keywords:** Social responsible investments (SRI); environmental, social and governance (ESG); fund performance measurement; Green Economy; Green Asset Management

**JEL Classification:** Q55, Q56, G15

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### **Introduction**

Nowadays sustainability and “to be green” have evolved into new megatrends, in addition to their already-important impact on the environment. By following the actual development of the global economy, the probability of a destruction of the ecological system will rise through a higher consumption of raw materials. On the other hand, an economic growth in order to fulfil the needs of an increasing world population cannot be dismissed.

The concept of a Green Economy takes up this dilemma and applies an eco-friendly growth to the economy, with consideration of ecological limits. A transformation into a Green Economy and Society impacts on all areas of economic sectors: The percentage of organically produced and discarnate groceries is continuously rising. The industry completes its productions with more efficient technologies like renewable energy and resource-conserving manufacturing. Green services are already offering carbon neutral transportation and tourism.

Even the financial market has enlarged its variety of products through social and responsible investments (SRI) considering environmental criteria and social components.

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At present, the SRI have a niche part in the stock market, however sustainable money investments enjoy rising popularity, which have doubled in five years (Forum Nachhaltige Geldanlagen, 2016, p. 34).

Although this is positive movement, this niche position could be an indication that most of the investors have reservations regarding sustainable investments and their performance. This attitude could prove shortsighted as business theories forecast external effects caused by not sustainable acting entities: Unsustainable entity practices gain profit at others' risk and expense and cannot have a long life expectancy with regard to the theories as the following example illustrates: A fishing company is fishing so much fish that the stock has no possibility to recover. As the fish stock will collapse after a certain amount of time. This will be the end of the fishing industry as well.

The authors deal with the question whether the green trend has had an impact on the fund performance of sustainable investments. Through literature research, ethical investments will be determined and described. Throughout the selection criteria an amount of more than twenty funds have been empirically investigated by their net asset values per share covering a ten years' span.

### **1. Literature review**

At the beginning of the research the authors started to screen released publications in order to create a list of criteria and definitions of a socially responsible fund by studying different theories.

Sustainability is old hat at the capital markets. The first time investors and asset managers dealt with sustainable investments called "ethical" or "green" investments, with a special focus on environmentally friendly assets, was in the late 1990s. In fact, because of the public belief that ethical investments underperform the non-ethical investments, most of the investors were tended to be of the more churchly-going kind.

Since then, there have been many changes in the capital markets with respect to ethical investments. The term "ethical investment" is selected and described by Environment, Social and Governance (ESG)-criteria in most of the released publications.

EIRIS describes an ethical fund as "[...] a fund where the choice of investments is influenced by one or more social, environmental or other ethical criteria" (EIRIS, 2017). An IMF Working Paper by Eyraud et al. (2011) identified ethical funds as "the investment necessary to reduce greenhouse gas and air pollutant emissions, without significantly reducing the production and consumption non-energy goods". Schäfer (2005) states the all types of investment can be called ethical or sustainable provided that the investment decision includes ethical or eco-friendly and conventional investment criteria. Furthermore, ethical investments are described as investment forms which contribute development to a sustainable future by a comprehensive analysis of the target investments. The analysis includes economic, social and environmental components (Hoffmann, Scherhorn and Busch, 2004). The European Sustainable Investment Forum (EUROSIF) defines socially responsible investing as a "[...] generic term covering ethical, responsible investments, sustainable investments, and any other investment process that combines investors' financial objectives with their concerns about environmental, social, and governance (ESG) issues" (EUROSIF, 2016). The World Economic Forum (WEF) specifies sustainable and responsible investing as an „[...] approach that integrates long-term ESG criteria into investment and ownership decision-making with the objective of generating superior risk-adjusted financial returns. These extra-financial criteria are used alongside traditional

financial criteria such as cash flow and price- to-earnings ratios. The focus on superior risk-adjusted financial returns distinguishes sustainable investing from similar-sounding approaches such as “impact investing” or “socially responsible investing” in which lower financial returns may be accepted as a trade-off for meeting social or environmental goals” (WEF, 2011, pp.10). Other research (Lundberg, Novak and Vikman, 2009) suggests, amongst others, that SRI must have a “[...] clearly expressed ethical policy and a clearly expressed screening method. [...] This information must be published in a written report.”

The research has already identified several denominations of ethical investments, such as ESG funds, sustainable funds or SRI, and the consensus has been SRI (Rathner, 2013). Therefore, the authors will use this term for all sustainable assets.

During the research we recognized no consistent details of what kind of target investments are permitted or not. But nearly all publications introduce the same methods of screening of how SRIs select their assets.

Negative screening is where companies may be excluded or “screened out” from investments because of their involvement in certain activities deemed to be negative, such as polluters, arms companies or animal testers. This approach also applies where companies are included and “screened in” for their positive contributions to society and the environment such as those providing renewable energy, waste and recycling services, or organic farming (EIRIS, 2017; Schäfer, Bauer and Bracht, 2015, pp.7).

By filtering for negative and positive criteria, the amounts of possible assets decrease rapidly. A fund investing in a small amount of assets infringes against its principles of diversity. The stricter the screening criteria the fewer assets which are available. In order to keep the selection wide, most of the asset managers prefer the best-in-class approach.

A best-in-class approach applies social, environmental and ethical guidelines to give a preferred selection when all other factors are equal. For example, an ethical fund might have criteria that enables it to invest in the oil and gas sector, but only in those oil companies which are “best in their class” as they have a better record on the environment and human rights than others. (EIRIS, 2017).

Based on their literature review the authors created their own list of negative and positive criteria in order to select ethical investment funds for the performance analysis based on the research and the United Nations Principles for Responsible Investment (UN PRI, 2017). (Table no. 1)

**Table no. 1: Selection criteria of ethical investment fund**

<b>Negative criteria</b>	<b>Positive criteria</b>
<ul style="list-style-type: none"> <li>• firms that allow compulsory labor, child labor, dangerous working conditions (e.g. mining)</li> <li>• companies involved in the alcohol, drugs or tobacco industry</li> <li>• firms that gain profit from gambling</li> <li>• firms involved in the adult entertainment industry</li> <li>• producers of weapons or other war supplies</li> <li>• providers of nuclear equipment</li> <li>• firms with a negative impact on the environment: air pollution, water pollution, dangerous waste (e.g. special chemicals)</li> </ul>	<ul style="list-style-type: none"> <li>• companies with exemplary recycling or waste management</li> <li>• providers of renewable energy</li> <li>• firms giving a contribution to the environment or society</li> <li>• companies offering innovative products or services (e.g. energy efficient, less waste, recycled material)</li> </ul>

## 2. Empirical research

First, as the empirical analysis has to comprise a representative period of ten years, the authors have excluded SRI which have been launched after 2007. Furthermore, the funds must still be tradable. Liquidated funds have been excluded as well. Mergers and consolidations have been neglected if the fund under review has not been merged.

The assets have to be listed and tradable for all investors at the German stock exchange. Given that special investment funds have to publish less data; the research focuses on retail funds. This information is available on the Bloomberg description, as well as the asset classification and the attribute of the fund. The authors have concentrated on equity funds with “socially responsible”, “environmentally friendly” or similar attributes.

This cluster is an accumulation of the sample funds attached in the appendix A. The performance of the sample can be measured by the net asset value (NAV) per share. The NAV is the calculated value of the fund including all assets, cash and receivables, less debts and costs. The NAV per share is found by dividing the NAV by the outstanding units, released on a daily basis on Bloomberg. Finally, the NAV data were aggregated using the arithmetic average.

In order to qualify the aggregated data, the authors have compared the performance of the aggregated funds with the MSCI ESG Index. This index “[...] provides exposures to companies within environmental, social or governance performance relative to their sector peer” (MSCI Inc., 2017). This index covers nearly the same period of ten years as the selected assets. The figures are published in USD and converted to EUR based on the European Central Bank (ECB) rates by the authors.

Analyzing the performance of SRIs and the MSCI ESG Index requires a reference value. The authors decided to analyze the iShares MSCI World ETF as the investigated SRIs are equity funds. Furthermore, the assets of the funds are not limited geographically.

The publication of the NAV per share does not happen on holidays or weekends. In order to create a data basis for every single day, the missing value is replenished by the NAV per share of the previous day.

## 3. Results

The results show three stock charts. The first graph indicates the performance of the aggregated SRI. The mark of the financial crisis in 2008 becomes apparent as the performance halves between 2007 and the end of 2008. The prices start to recover at the beginning of 2009 with a minor fall back at the end of 2011. (Figure no. 1)

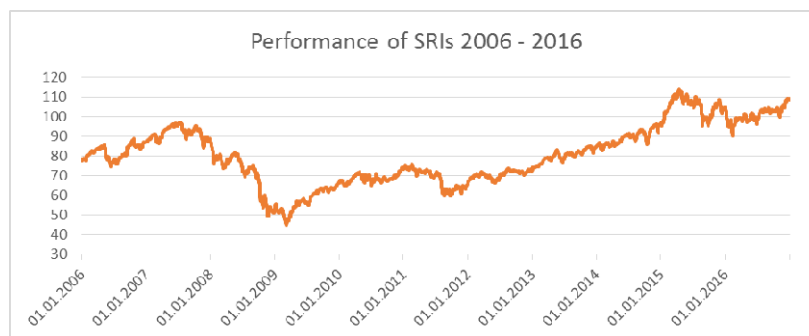


Figure no. 1: NAV per share of SRI 2006 - 2016

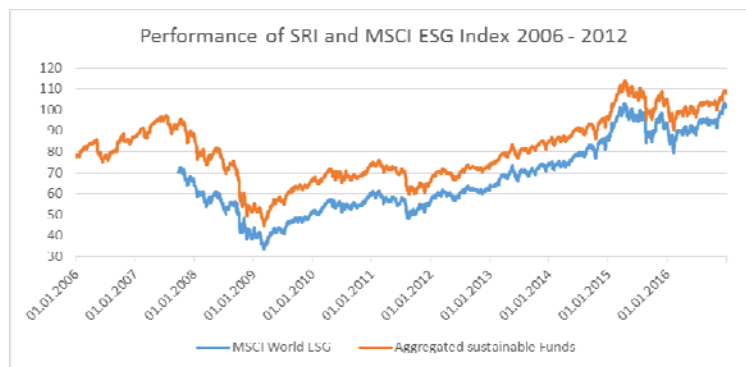


Attention should be paid to the volatility of the price movement which is quite low. Throughout the chart analysis, a firm and evolving upward trend is evident in the last five years. The development increases up to 65 percent from 2012 to 2016, as shown in table no. 2. Furthermore, the upwards trend seems to continue in 2017.

**Table no. 2: SRI performance between 2012 and 2016**

Period under review		Performance
01.01.12	31.12.12	10,42%
01.01.12	31.12.13	29,24%
01.01.12	31.12.14	47,24%
01.01.12	31.12.15	59,94%
01.01.12	31.12.16	64,87%

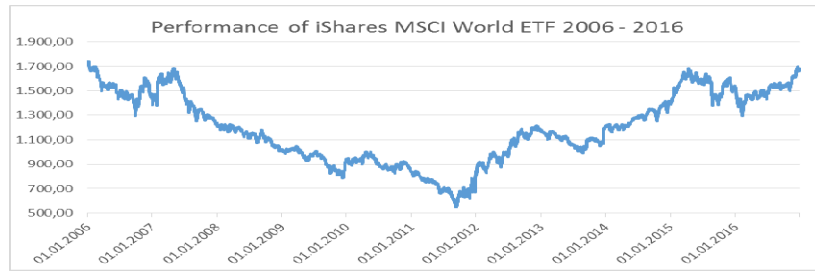
The second chart qualifies the performance of the examined SRI and compares it to the MSCI ESG Index between 2006 and 2012.



**Figure no. 2: NAV per share of SRI and MSCI ESG Index 2006 – 2016**

The chart implies a high correlation between the index and the SRI performance which is confirmed by the calculated coefficient of correlation of 0,9812. The coefficient expresses a high positive dependency of the SRI on the index. If the index increases, the performance of the SRI will increase nearly equally. The index also registers an upward trend in the last five years.

The influence of the financial crisis in 2008 on the iShares MSCI World ETF shown in figure no. 3 is clearly higher than on the SRI. The performance of the benchmark records higher losses during the crisis from 2007 until the end of 2011. The course of the equity index decreased at a third of the output value. It is remarkable that not only the capital loss is higher but also longer, until it starts to recover at the end of 2011.



**Fig. no. 3: NAV per share of iShares MSCI World ETF 2006 – 2016**

Nevertheless, even the benchmark shows an upward trend in the last five years. The development of the equity price is as consistent as the sustainable investments, but gains higher increases in connection with a higher price volatility, which is stated in table no. 3.

**Table no. 3: iShares MSCI World ETF performance between 2012 and 2016**

Period under review		Delta
01.01.12	31.12.12	40,77%
01.01.12	31.12.13	43,21%
01.01.12	31.12.14	67,43%
01.01.12	31.12.15	81,60%
01.01.12	31.12.16	97,53%

The volatility of the benchmark compared to the sustainable assets becomes apparent in a ten-year comparison in table no. 4. The table shows the NAV per share at the beginning and the end of a year.

**Table no. 4: Delta of iShares MSCI World ETF and SRI**

Period under review	iShares MSCI World ETF			SRI		
	First NAV per share	Last NAV per share	Delta	First NAV per share	Last NAV per share	Delta
01.01.06 31.12.06	1.738,27	1.440,08	-17,15%	77,42	86,94	12,30%
01.01.07 31.12.07	1.423,81	1.221,51	-14,21%	86,94	88,52	1,82%
01.01.08 31.12.08	1.208,91	1.015,23	-16,02%	88,52	52,24	-40,99%
01.01.09 31.12.09	1.021,68	944,82	-7,52%	52,25	66,17	26,65%
01.01.10 31.12.10	932,02	833,29	-10,59%	66,17	73,45	11,00%
01.01.11 31.12.11	836,50	820,99	-1,85%	73,45	65,63	-10,64%
01.01.12 31.12.12	841,06	1.183,95	40,77%	65,63	72,47	10,42%
01.01.13 31.12.13	1.177,25	1.204,46	2,31%	72,47	84,82	17,04%
01.01.14 31.12.14	1.216,20	1.408,18	15,78%	84,82	96,64	13,93%
01.01.15 31.12.15	1.419,65	1.527,32	7,58%	96,64	104,98	8,63%
01.01.16 31.12.16	1.525,78	1.661,34	8,89%	104,98	108,21	3,08%

## Conclusion

The research includes a large period of ten years in order to investigate the stock price development of SRI and non-SRIs in which the last five years' interval is focus.

The chart analysis states a consistent upward trend of the SRIs in the last five years. The last five years' interval, in comparison to the previous period, shows less volatility in connection with moderate market returns. The financial crises had a dominating influence on the stock prices of the SRI and caused a continuous downside trend over two years. The course started to recover faster than the benchmark. After a short period of small loss, this recovery is the start of the aforementioned upward trend that still persists. The losses affected by the crises were already equalized at the beginning of 2015.

The authors investigated the same period for the iShares MSCI World in comparison to the SRI. Firstly, the non-SRI also show an uptrend in the last five years. In fact, the trend is not as consistent as the development of the SRI, but the market returns are apparently higher. The volatility of non-SRI is remarkably high as the stock price is more susceptible to other variables like political events or fluctuations in prices of other assets. The financial crisis had a stronger impact on the stock prices. The graph illustrates a slump in prices from 2007 until 2011, up to 60 percent, and the period of the downside trend which also lasted substantially longer.

The authors could not prove an outperformance of the SRI in comparison to the non-ethical fund by the research in the last period of five years, but the analysis shows that sustainable assets are not as susceptible to crisis or other influences as are non-sustainable investments. Therefore, an investor gains less profit from sustainable investments but during a downwards trend the risk of a loss is not that high. Furthermore, through literature and data review, the authors noticed there is no consensus of what is meant by an ethical fund. No consistent description is released. This hinders the classification of SRI, which could be avoided by the attribute, "ecofriendly", in the Bloomberg description.

Broader research by the authors will focus on the MSCI ESG Index substitutional for all SRI. This index replaces the largest sample of SRI worldwide. Most of the released publications focus on SRI in special countries or branches in order to prove an outperformance of ethical investments. Although the funds will be launched in a special country or area, most of the funds invest in sustainable assets using their screening or best in class approach worldwide. In further research the authors will focus on the effect of the high positive correlation between MSCI ESG Index and the iShares MSCI World ETF.

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**Appendix**

Appendix A: Sample funds

<b>ISIN</b>	<b>Security name</b>
LU0061928585	Ökovision Classic
LU0121747215	Sarasin Multi Label
AT0000675657	Kepler Ethik Aktien Fonds
IE0005895655	Green Effects NAI
LU0234759529	F&C Responsible Global Equity
AT0000A01GL7	ERSTE Responsible Stock Global
AT0000677901	Raiffeisen Ethik Aktien
LU0161535835	Swisscanto Portfolio green
LU0113400591	Candriam Equities L- Sustainable
DE0005326532	KCD Union Aktien Nachhaltig
LU0152554803	Liga Pax Cattolico Union
DE0009847343	Terrassisi Aktien I AMI
LI0017502381	Acatis Fair Value Aktien
LU0254565053	Prima-Global Challenges
LU0029375739	DNB-Global SRI
AT0000993043	Superior 4 - Ethik Aktien
LU0188782162	Multipartner SICAV RobecoSam
AT0000701156	3 Banken Nachhaltigkeits-fonds
LU0229773345	Sarasin Ökosar Equity
LU0158827195	Allianz Global Sustainability
LU0041441808	SEB Green Fund
DE0008470477	Invesco Umwelt und Nachhaltigkeit
LU0117185150	Meridio Green Balance

## THE ROLE OF LEADERS IN THE CONVERGENCE OF TRAINING PROGRAMS WITH THE ORGANIZATIONAL STRATEGIES: A CONCEPTUAL STUDY

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### **Abstract**

Many attempts to change the employee training process and to improve the results of it, with the integration, re-engineering, and improvement of the capacity of the trainer are carried out by managers in the organization, but due to the lack of sufficient attention to the need of the organization to have an effective leadership and its compliance with the organization's strategy, led to the failure of all attempts. Most organizations have chosen a wrong way in the convergence of their strategies with the employee's performance and the aim of the organization, also in the distinction between the challenges of adaptability of the organization strategies and the technical issues, and they try to resolve all these organizational challenges and problems by administrative and management methods. The consequences of all these mistakes, while the main reason for failure is not detected correctly in the organization have an impact on the training processes of the employees and led to the failure of implementing the plans and programs. The main purpose of this conceptual study is to find out the process of implementing effective training process in the organization and the impact of the leadership role in the convergence of the employee's performance and organization strategies in the training programs. The study will be discussed in detail the process of integration of training programs with the organization's strategy. In the first part of the study are compared the features and functions of leadership and management in the organization. In the second part, the need for leadership in the convergence of strategies will be discussed. Checking the leadership functions in compliance with the strategy will form the main part of the discussion in the third section. In the last part discusses the implementation process, from the perspective of challenges and obstacles.

**Keywords:** training process, leader's role in training programs, organization strategies, **synchronization**, convergence the strategies.

**JEL Classification:** M10, I25, L20.

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### **Introduction**

Today, the training and education systems are faced with the adaptive challenges in most of the organizations. The rapid changes of communities, markets, customers, competitors, and

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technologies forced the training systems to determine the significance, developed or developing new strategies and learn new execution methods to improve their performance and capabilities.

Usually, the most difficult task for a leader in providing the knowledge needed the education and training systems is to know how to integrate them with the organization's strategy. The action of adaptability, when necessity is the role of the training process and leaders in the development of the quality performance of employees to be challenged, and the importance, need and values of training employees with the professional leaders and education system faces with conflicting views of the organization. When the organization starts to redesign, or when they doing development process or implementation of new strategies, or the senior managers typically complain of ineffective training results, it's the result of adaptive challenges. To solve the problems mentioned above, although the focus on managers in the organization is to develop the programs, plans and implementing them effectively are critical, but more importantly, is to how a leader, lead the training process and education system along with the strategies, goals and all programs in the organization. The following reasons are the organizations face in this change rotation role:

- For this rotation of the role, need a dramatic change the basic attitude of the organization on the concept of management. In the system, focusing solely on the individual manager's organization to provide a solution is the first step. In the employee's training challenges should have trust in the intelligence of them and wisdom of all the relevant factors.
- Change is always stressful. Change the approach of leading workers from a manager to a leadership, requires a change in the ongoing tasks and responsibilities for the different roles, establish extensive connections and relations between all workers in the organization, believes in the value of new behaviours, new roles. This kind of changing in the traditional system which they prefer to maintain the current situation in the organization is very difficult to deal with it and implement it and always has created serious problems in the implementation of new approaches. To explain the process of integration of training with the organization's strategy, compare the features and functions of leadership and management in the first part of this article will be explained. In the second part, about the need for the leadership in the convergence of strategies will be discussed. Checking the leadership functions in compliance with the strategy will form the main part of the discussion in the third section. In the last part discussed the implementation process, from the perspective of errors and obstacles.

### **Management**

Management is the process different from leadership process, we can define the management as the process for effective implementation and monitoring the compliance and adapted programs with the organization's strategy. To get executed by this process requires an approach that everything a manager is doing need to reveal for a leader in an organization and create a good environment for the leader performance, regardless of whether the organization in what areas are active and what kind of strategies provides and follow. In the scope of education, a manager in addition the role of communication, information, and decision-making, the following tasks can also be expected to please (Greer, 1995): Management educational system (emphasis on leadership knowledge); Management employee in organization (emphasis on behavioural science); Management the courses in organization (emphasis on scientific management).

### **Leadership**

From the perspective of educational leadership is an "insight and understanding" and helps in changing and complex environment knowledge needs of the organization and rules dealing and reaching it properly recognized, understand the new expectations of the skills and abilities required for employees, challenges in business clearly discover, and to respond these conditions, effective training programs be created (Langley, 1988). With this approach, leadership is the art of influencing goals and programs through harmony with the organization strategies and coordinates and organizes all relevant factors in order to meet the needs of the organization's knowledge. A leader in addition to knowing the specific knowledge about the training course, he/she needs to have enough skills about how to communicate with others? How to choose the right people for the right place? How to converge and match the strategies with the training courses? And how to ensure that all the employees and organization are able to receive the knowledge needed on time and completely. Accordingly, seven skills can be imagined for the leaders:

- Communication power (coordination between all members of the group) and create a reflection and continuous activities to share knowledge;
- Integration and alignment (capabilities to integrate goals and programs);
- Environmental awareness and Emotional intelligence;
- Motivation (motivates and encourages followers) (Greer, 1995);
- Avoid ambiguity (transparency in work, creating clarity in objectives).

### **Leadership and management features**

Management and leadership are the act in the organization like the two distinct and complementary systems. Each has its own functions and activities and to succeed in a dynamic business environment and constantly becoming more complex, is a necessity in any organization. After this description, can be outlined for them the following features:

- Management is the arts of responding, meet the needs and expectations of the training system are created and by using it can be greatly facilitated the significant factors such as the quality and effectiveness and established order and stability for them. But the leadership is the compatibility and adaptability the changes.
- Organizations meet the educational and training needs in the first step with set goals and aims, develop details of the procedures to achieve goals and then allocate resources and managing them with the managers. In contrast, the leadership process begins with the constructive and effective change with the certain direction (vision) and to develop strategies to make the necessary changes in order to achieve that vision.
- Management improves its ability to reach the organizers aim with the organizing of resources, employing the experienced human resource, delegating responsibility to promote programs and develop monitoring and control system design. But the leadership activities at this level are to unite workers together. Means attention toward those who are able to build coalitions among people who are able to understand the vision and organization's goals, and have motivated and committed to achieving goals (Ciampa & Watkins, 2005).
- Finally, the manager tries to monitoring the process and projects in the organization through formal and informal ways, for ensuring of the goal achievement. But in the leadership process for achieving goals, motivate and inspire employees is required.



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**Need the leadership for convergence the training process with the organization strategies**

Today, three main factors, the need to integrate education strategies in a variety of planning and implementation methodology requires:

- *Transformation*: The environment instability is the main challenge for organizational dynamics and the necessity for the survival and preparedness to deal with this challenge. For this purpose, it is necessary to answer the question, how much the organization has the quality and multi-functional human resources, and what kind of the plan designed to improve and training them (Adair, 2003).
- *Effectiveness*: Another important factor is to assessment rate of effectiveness of the programs. The effective implementation of training is a hard work, and the only solution to dealing with these challenges to believe and trust that a trainee progress has an effective impact on the organization need and knowledge, the necessity that often exists but simply do not understand and survival depends on the effectiveness of the training system. The training progress as much it can provide the needed of the organization with the best quality and at the right time, it can be hopeful dynamically processed. (Langley, 1988).
- *Outsourcing*: Part of the dexterity and effectiveness of training programs is that to find out, which programs are costly or implementing them will require various reasons such as budget constraints or time limitation outweighs the benefits be deposited to the outside organization or needs close and continuous interaction with universities and education centres, in order to provide the training needs of the organization (Cunningham, 1993).

**Functions of leadership in convergence the training programs with the organizational strategies**

- *Leading before change*: Since the most important function of training programs is changing, so create an outlook for the leading of changes is a major issue. Determined the direction and leading the employees, it's not like the planning which the managers are doing in the organization. Planning is the management process with deductive nature of the components and to achieve the timely and favorable results without the necessity of having the change in the system is designed. But more inductive determine the direction in which a wide range of data in perspective (it defines the organization's future) is collected. The point is the perspective and view of the future, doesn't need to have certain special innovations. Most influential perspective includes ideas that have already been known. What is important is to provide the knowledge needed in the organization and how much of it can lead to a realistic strategy (Kaplan and Norton, 1996).
- *Alignment before organizing*: The base of strategy formulation is the interdependence of its constituent elements to each other. Most processes by their objectives, subject, context and the results linked to many others. If the process non-compliance with the organization's strategy or the factors affecting it developed, then there is always the possibility that the effect is not desirable, is not achieved the expected outputs and results. What, more than anything else is important to unite the organization's beliefs about the effect, the impact, and need of training system in the organization (Langley, 1988). The most barrier in this way is the matching and adaptations the training process with common beliefs in the organization. Some managers distrusted the training

programs and in different ways create obstruct for the programs. The priority is to have an alignment and interacts with all employees in the program. It will help to the organizational consensus on the vision, goals and created training programs and a clear understanding of the orientation training to all levels of the organization without a sense of vulnerability and untruth the employees also will follow seriously and satisfy all the training programs (Langley, 1988).

- **Motivation ahead of control:** Doing the change and modification is the most important impact of the training processes, so the ability to motivate the employees and organization are very important to deal with the environmental and organizational changes. In leading process, a leader with motivating and encouraging try to do the mechanism of control over them and it is believed that for the realization the vision and achieving goals are always necessary to have motivation. Motivation, not by forcing the employees, but by satisfying basic needs, in the process of adoption with these methods in below a leader has the ability to motivate the employees: The training vision should emphasize on the value of organizational knowledge and personal knowledge (Adair, 2003); Contributing the employees in decision-making related to vision or part of it that they have the responsibility to perform (Langley, 1988); Support their efforts for understanding the vision with positive feedback (Langley, 1988); Rewarding and encouraging them gratefully, for any achieve success (no matter how small or big is) (Rothwell and Kazanas, 2003).
- **Qualitative development process before quantitative growth:** Development of the training program quality depends on establishing a delicate balance between all elements in the implementation process, and effective delegation of authority and since the delegation of authority has the direct relation with the common understanding of vision, so it is recommended as far as possible, have a simple defined of vision and mission. Create a perspective of the future is one of the main leadership responsibilities. Goals should be specific, quantifiable and executives and give the employee opportunity to have activity and action and assess their action result. The other main action in this way is to train the all relevant elements and employees to create a common understanding of the vision and goals, learning how to meet the challenges, learn how collective thinking has and provide feedback. Then the employee learns how to face the problems, complexities, and barriers, feel comfortable to have cooperation with others and, most importantly, to anticipate problems and predict the challenges (Kaplan and Norton, 1996).

#### **Process of convergence the training with strategies**

- **The situational analysis:** To identify the environmental factors affecting the matching and convergence process are performed. The situational analysis, covers the long-term goals, mission and vision, the capabilities of the organization and its environment. And answers to, such as questions: If the program and the process could not converge with the organization strategies, the situation how it will be in future? What are the needed elements to carry out the convergence and matching process? What are the obstacles that are created incompatibility the strategies and ways of dealing with them?
- **Design the process:** After analysing the situation, the convergence process should be designed. The leader should try to have a process according to analysing the environment, for creating a strategy of training. For this purpose list of usable strategies must be counted, and then with use the output of the last stage, a process that helps to

facilitate and accelerate the work chose. The participation of all relevant factors, which contribute to the process or have benefited from the results of the process, can minimize the risk of error in programs.

- **The synchronization:** The leader should check carefully all the potential options that can be used in the synchronization process to increase their efficiency in solving problems and using the opportunities. For this purpose, it is necessary to: create an organizational structure in accordance with the strategies; coordinating and synchronization skills; create and develop resources and skills training with the strategies (at the executive level); create a culture of training in accordance with the new strategy (Rothwell and Kazanas, 2003).
- **Evaluation:** For the following reasons control the convergence training process with strategies and analyze the results is essential: determine the amount of realization anticipated goals and objectives; determine the interaction of programs with the organization strategy and check the environment in which the process of synchronization done; create the necessary situation for a continuous improvement program; prevent the diversion in programs and fix defects and provide appropriate solutions; help to increase the efficiency of all the elements involved in the program.

#### **Leadership mistakes in convergence the training process with strategies**

- *Convergence doesn't have executive value* (Adair, 2003): The convergence strategy, when is valuable to inspire the training system and help them to understand how to match and coordinate their duties with the organization's strategies. This synchronization can be used as a guide to prioritize in the important training decisions and both organizations and employees reach to the common understanding of the educational needs.
- *Lack of proper justification the employees:* Leadership process always involves collaboration and communication with employees and these activities that occur only in a conducive environment. This plan in the first step is needed the sufficient knowledge regarding the necessity, purpose, and the conditions of convergence the training process with the organization strategy. For this purpose, it is necessary to all the factors related to this process has the sufficient information and justifies them in the five fundamental issues: priority, timetable, impact, participation, obstacles (Rothwell and Kazanas, 2003).
- *Employees and elements in the program couldn't understand fully the strategies:* Create strong communications networks within and outside the organization, using the new and updated information about environmental change and new technologies are the most important requirements of the convergence process in the organization. Networking and information system in this way can help to identify the needs of the organization knowledge and also give them strategies for eliminating and removing the deficiencies, inconsistencies and shortcomings in the organization.
- *Ambiguity in delegate responsibilities:* While in many training systems the leaders try to carry out all the responsibilities without request any help from other parts or without having complete information and this will lead to the failure in running the process and unsuccessful result.
- *Reduce the amount of support from senior managers:* The tasks and responsibilities for management are changing rapidly. As much as managers have more participation and higher support, the implementation of the convergence process will proceed quickly and

more easily. Perhaps this method is time-consuming but will create, trust, commitment, increasing understanding and sense of ownership over the training system between staff.

- **Failure to detect obstacles and barriers:** Because of the organization environment's changing and dynamic features' of the environment so, unforeseen events may unravel when leaders and managers are planning or implementation the process. These barriers must be recognized and identify and when any uncertainties situations occur, all and everyone involved, in the process should be encouraged to create innovative solutions to overcome obstacles.
- **The benefits of effective leadership:** Focus on the leadership can enable the training system to work innovative and creative and also help the organization to create a future and work better to achieve their goals and select better strategies for development the organization. I believe that the issue of this convergence between training programs and organization strategies is the most important result of leaders in the system. The most important results of effective leadership are doing the best change in the process of aligning the strategies with the training program in the organization. The effective leader can act as the guide in the system and make clear the direction of training program activities in the organization. Set the priorities and help to develop the training strategy and try to create effective action and specialized teamwork. An effective leader has the ability to identify and respond to the environment change, identify all new opportunities and unexpected threats and facilitate the way to deal with challenges and can help with the management in assessing the need for increasing the quality of labour force in the system (Cunningham, 1993).
- **Obstacles and Challenges:** There are various reasons that some organizations are reluctant to convergence the training programs with their strategies: lack of awareness of the real situation of the training system and its role in improving the quality performance of employees in an organization; self-delusion about the current situation of the training programs; tend to maintain the current situation and scare of having the change in the system and having the negative view in relation to any change in the system (Ciampa and Watkins, 2005).

### **Conclusions**

Many of training systems nowadays are facing with the problems of excess and extravagance in the management and leadership process in the organization and need them to increasing the capacity of having the leaders in their systems. Most organizations habited to manage the training process and solve all the challenges and barriers in the convergence of the training process and strategies even the technical problems with the manager's methods and power. And unfortunately, the impact and the consequences of this wrong action will lead to the failure of many training programs, while the main reason for this failure always will not detect and unidentified. The uncertainty about the business inconstancy situation, rapid technology change, mix the required skill of human recourses and ultimately improve the effectiveness of training programs, are the elements which the need for full convergence the training system with the organization's strategies required. The main purpose of this article is to concentrate on the need and importance of leaders as the main part of convergence the organization strategies with the training programs and a necessary part for facing the challenges of inconstancy situation an environment. Also with using leaders will be able to decrease the risk of performing the training programs in the organization. It is clear this aim cannot be achieved unless the organizations know and

understand the values and the need of leaders and with the effective management planning tries to implement the training strategies and improve their quality activities in the organization.

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## CRYPTOCURRENCY – A NEW TREND IN THE BUSINESS WORLD?

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### **Abstract**

Over the time money represented the generic connection of various economic entities, representing a form of a common "language" used to achieve the objective of well-being. History has often been written with and for money, and the controversies surrounding it were numerous. Currently, one of those controversies concerns the issue of the emergence and frequent use of the currency in virtual space as a potential alternative to the traditional currency. Starting from the literature dedicated to virtual currency, this paper aims to highlight how the cryptocurrency may constitute an effective response to the demands of the economic environment, taking into account both the opportunities and threats it is subjected to, and the records evoked by the history economic thought adapted to current reality.

**Keywords:** cryptocurrency, bitcoin, private currency, competition

**JEL Classification:** M00, B20, E40, K29

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### **Introduction**

The issue of currency goes beyond the borders of time, being the subject of numerous studies and regulations since earliest times. From the academic point of view, the second half of the nineteenth century was prolific in what concerns the writings and debates dedicated to the currency, bringing to the fore, among others, the controversial issue of private money. Such research followed three directions: the first one followed by Carl Menger seeks the origin of private money in the individual behaviour guided by self-interest in his economic actions; the second one (Milton Friedman) associates private money with the extend freedom of individual initiative, while the third establishes that the private money is a privilege of a private bank. In the literature, however, when talking about private money frequently is mentioned the name of Friedrich August von Hayek. His firm belief, that free competition between issuers of private money is the best way to obtain a healthy currency, generated some criticism both outside and inside the Austrian School of Economics (Rogojanu and Badea, 2015) and is still raising the interest of authors concerned with the private currency issue, which seems to be old and new at the same time.

### **1. Literature review**

Beyond the concern of some representatives of the Austrian School regarding private money, the twentieth century brought the idea of the private company money. Edward de

Bono, in a pamphlet prepared for the Centre for the Study of Financial Innovation proposed companies to issue their own money rather than use equities (Bono, 2002). Bono's currency was seen as a claim on goods or services produced by the issuer. For example, IBM could issue "IBM dollars" that could be used to redeem both IBM products and products traded by companies that have proceeded in the same manner. Another side of private money can be seen in money set up by various communities. The financial crisis has brought to the fore the problem of money in some Italian or Greek communities, where local alternatives were used as parallel currencies to the official one. An example of this is the TEM currency, which appeared in Volos, Greece and had a value of 1 euro, being accepted to trade goods and services or to be used for local loans (Donado, 2011). In the same category of community money, we can include also: Sano ("a currency for barter in Siros", which is worth one hour of work), "the peaches" (used since November 2013 in Montreuil, France), "the bees"(which were worth 1 euro in Villeneuve sur Lot in January 2010 and were depreciated by 2% every six months),"the muse"(Angers),"boniatos"(Madrid) etc. (Rogojanu and Badea, 2015). Another interesting example is the checks in "hours" used in Barcelona for the purchase of goods or services. The model called "time bank" was extended to other Spanish regions, at present being known at least 300 time banks (Cruysheer, 2015).

As the XXI century is expected to be one of the virtual environment, the currency cannot avoid this space, especially given the fact that since the last century there have been attempts in this regard. Therefore, lately there are frequent debates about the importance cryptocurrencies have acquired and therefore cryptomarkets. Martin (2014, p. 356) defines a cryptomarket as an online forum where goods and services are exchanged using digital encryption to conceal the identity of traders, this kind of transactions being based on the Tor network, on exchange decentralized networks and on digital currencies such as Bitcoin. Currently, most cryptomarkets are located in the Tor network and works like hidden services (DeepDotWeb, 2016), making possible the preservation of traffic anonymity. Cryptocurrencies used are defined as „a peer-to-peer version of electronic cash, which allow online payments to be sent directly from one party to another without going through a financial institution” (Cheun, 2015, p. 8).

## **2. Research methodology**

In order to identify the main economic issues regarding the potential of using the cryptocurrencies in general and bitcoin especially in the economy of the XXI century as possible alternatives to the traditional currency, was chosen as a research method the literature review, which involves a synthesis and assessment of the existing information in scientific literary sources. The selected method involved three phases: the identification of specific literature, the selection of relevant publications and the analysis of the results by using relatively recent books and articles, and specialized sites. The objectives of this research were: identifying key cryptocurrencies currently used on the market, determining the degree of regulation of the most popular cryptocurrencies in different parts of the world, emphasizing the advantages and disadvantages of using bitcoin.

## **3. Results and discussion**

### **3.1. Crypto-currencies in the XXI century**

Cryptocurrencies have known various forms over time. Thus, the economies of Spain, Ireland and Greece all suffered because of the crisis in 2008, and not surprisingly, within

them alternative currencies have emerged in order to "fix" the national economy and offer a viable alternative for a revival. In some cases, within the same country several altcoins appeared, competing with each other. In the majority of such cases, were created simple clones of Litecoin, with a vague trace of nationalism, called "currencies of nostalgia"(Kristof, 2015) (see Table 1), such as Deutsche Emark, Ekron and eGulden, which were named in honour of the national currency used before the EU integration. Thus, currencies such as those mentioned were designed to rely on the nationalism of those who once used: the Mark (Germany), the Krona (Sweden, Norway and Denmark) and Guilder (Netherlands).

**Tabel no. 1: National Cryptocurrencies**

National Cryptocurrency	Date of creation	Country
AuroraCoin	February 27, 2014	Iceland
SpainCoin	March 15, 2014	Spain
PesetaCoin	February 22, 2014	Spain
GreeceCoin	March 22, 2014	Greece
ScotCoin	May 26, 2014	Scotland
AphroditeCoin	March 30, 2014	Cyprus
GaelCoin	March 20, 2014	Ireland
IrishCoin	May 17, 2014	Ireland
Deutsche eMark	December 15, 2013	Deutschland
Ekrona	March 30, 2014	Norway, Sweden, and Denmark
MazaCoin	February 27, 2014	Native American communities
MapleCoin	March 22, 2014	Canada
IsraCoin	April 8, 2014	Israel

Source: Kristof (2015) and The Coin Desk site <<http://www.coindesk.com/coindesk-guide-worlds-national-altcoins/>>

Besides currencies with nostalgic scent, there have emerged those related only to cyberspace. At present the number of types of crypto-currencies seems to be very fluctuating. If we are guided by the fact that in August 2014 there were 440 currencies listed on coinmarketcap.com and we consider that in 2015 cryptocoincharts.com listed 825 altcoins, we can conclude that at the present there are up to 1,000 such currencies. Nevertheless, new cryptocurrencies are advertised constantly on Bitcointalk-forum. Surprisingly or not, some of the cryptocurrencies appear as experiments, such as Shitcoin, OneCoin, JackpotCoin and Pizza-Coin (Cheun, 2015), having a very short life. Others have proven their ability to withstand longer on the market and to compete with each other, in the sense of competition seen by Hayek. Table no. 2 lists several such cryptocurrencies. Of all cryptocurrencies that have emerged in this century, it seems that the most frequently used and advertised is bitcoin. Studies allocated to it are numerous, but the last word on this cryptocurrency has not yet been said, the controversy surrounding it being centred on identifying the qualities of the bitcoin, on the advantages and disadvantages of using it and, not least, on the ability to survive in time to turn or not a viable alternative to the national currency.



**Table no. 2. A list with several "popular" cryptocurrencies**

Name	Symbol	Date of creation	Maximum of coins
Bitcoin	BTC	January 2009	21 m
Namecoin	NMC	April 2011	21 m
SolidCoin	SC	August 2011	18.9 m
Geist Geld	GG	September 2011	No limit
Tenebrix	TBX	September 2011	No limit
Fairbrix	FBX	October 2011	No limit
Litecoin	LTC	October 2011	84 m
BlackCoin	BC	February 2014	No limit
Darkcoin	DRK	January 2014	Aprox 22 m
Peercoin	PPC	August 2012	No limit
Dogecoin	DOGE	December 2013	100 bn
CloakCoin	CLOAK	June 2014	4.5 m
Monero	XMR	April 2014	Aprox. 18.4 m
Primecoin	XPM	July 2013	2 bn
Zetacoin	ZET	August 2013	160 m
Vertecoin	VTC	January 2014	84 m
QuarkCoin	QRK	July 2013	247 m
Florincoin	FLO	June 2013	160 m
Bytecoin	BCN	March 2014	184.46 bn
Feathercoin	FTC	April 2013	336 m
IXcoin	IXC	August 2011	21 m
Novacoin	NVC	February 2013	No limit
Talkcoin	TAC	May 2014	No limit

Source: Cheun (2015)

### 3.2. A "popular" cryptocurrency – bitcoin

The cryptocurrency called bitcoin falls within the private currency pattern described by F.A. von Hayek, except the cyberspace in which is flowing in. Bitcoin was put into circulation at the beginning of 2009 by an anonymous entity, working under the pseudonym "Satoshi Nakamoto", this after in 2008 the same entity had introduced the concept in a paper. On 10 March 2017, 16.207.850 bitcoins were put into circulation, while the market capitalization exceeded approximatively 20 bn. Dollars, or almost 18.6 bn. Euros (<http://bitcoincharts.com/bitcoin/>). Bitcoin is not a new "recipe". Attempts to outline an alternative currency to the state one existed for a long time. It is enough to remember among others, the example of eCash and DigiCash, which in 1983 combined the idea of electronic money with that of encryption (Chaum, 1983) or the example from 1996 of digital gold currency or e-gold (Dibrova, 2016). Bitcoin is obtained through a process of mining, the total amount existing in cyberspace being of 21 million coins. Bitcoin specific mining technology is becoming more efficient today, unlike the moment of appearance of it (2008) (Li and Wang, 2016). Among the advantages of using bitcoin, proponents enumerate: saving time and physical space of those involved in transactions; establishing the change rate freely based on supply and demand; avoid of bureaucracy and expenses related to the issuance, transportation, storage, security and circulation of traditional currency; lack of inflation; no fees or very small fees in transactions with it.

Bitcoin has become quite popular in the real economy, as it is accepted for payment by more and more economic agents such as Wordpress.com, Reddit, Dell, Target, Expedia, Bloomberg, PayPal and Tesla Motors (Pieters and Vivanco, 2017). In Cyprus, Canada,

Romania and others, ATMs were installed, through which bitcoin can be converted into real currency. In Romania, in October of 2014, as a result of the partnership between ZebraPay and ATM operators, 874 terminals were functioning spread over 160 cities; through them payments with bitcoin could be made and also could be converted the national currency into it. Most of this terminals were placed in hypermarkets such as Auchan, Carrefour and Kaufland (Siddique, S., 2014).

From a theoretical standpoint, the biggest problem is a correct framing of bitcoin, since there is a controversy among economists on its classification as money or not. Yermack (2013) claims that bitcoin is not a currency in the classic way because all cryptocurrencies have no intrinsic value. Instead, Woo et al. (2013) indicate that bitcoin may be considered as having the specific value of money thanks to its function of medium of exchange and store of value. Van Alstyn (2014) argues that in order to have value, bitcoin has to be backed by the government. Bal (2015) show that Bitcoin currently does not fulfil the functions of money in the classical economic sense, but it has the potential to become money in the future (Cheun, 2015). Anne Haubo Dyhrberg argues that Bitcoin is somewhere between a currency and a commodity due to its decentralized nature and to the limited size of the market, which does not mean that Bitcoin is less useful than the current market assets (Haubo Dyhrberg, 2016). Weber (2014) argued that in the year 2014 given the fact that 70% of bitcoins are placed in dormant accounts, one can notice that bitcoin increasingly behave more as an asset than as a currency. Others argue that bitcoin was turned into an item of speculation more than functioning as money (Cheah and Fry, 2015).

On many occasions, economists compared bitcoin with gold because there are many similarities. Both bitcoin and gold have a high value because they are rare and the process by which they are earned is expensive. None of them has no nationality and is controlled by no particular government. Both assets are "exploited" by several independent operators and companies. Gold was used as a medium of exchange during the gold standard period, but was abandoned due to liquidity problems (Haubo Dyhrberg, 2016). Similar problems may occur in bitcoin's case if user base expands further. However, the two elements present fundamental differences.

Karl Whelan claimed that Bitcoin is similar to the dollar (Whelan, 2013), both currencies being mainly used as a medium of exchange, but the main difference occurs due to the fact that the dollar is supported by a government in which people trust, while bitcoin is categorized as "private money" being placed on the market by the private sector. Such a classification is a compromise and perhaps best reflects the nature of the use of bitcoin. At the same time, however, such a classification implies the need to pay tax on transactions with bitcoin. From the difficulty of accurate classification of bitcoin occurs an increased difficulty when it comes to the regulation of it. For example, German legislation raises questions regarding the classification of bitcoin in the category of currency in the classic sense of the term, bitcoin not being recognized in Germany as legal means of payment or foreign currency, but only fulfilling the criteria of "accounting unit". In Table no. 3 can be seen a summary of how bitcoin is regulated in various countries.

**Table no. 3: Regulation of Bitcoin in some countries**

Country	Bitcoin regulation
Russia	BTC cannot be used
China	Banks and payment institutions are prohibited from dealing in BTC, but individuals are free to make transactions.
Ecuador	BTC cannot be used
Finland	In September 2013 it was decided to apply to BTC the income taxation regime, and in January 2014 was concluded that BTC is a commodity and therefore goods system of taxation can be applied
Estonia	Transactions with BTC are subject to the standard VAT rate.
Germany	BTC is not classified as e-money or foreign currency, but is seen as a financial instrument subject to banking regulations. German tax introduced a 25% tax on benefits obtained, exempt the first year for those who declare their transactions.
Brazil	In April 2014 it was decided that BTC transactions exceeding the amount of 35,000 reais (R \$) to be subject to financial assets regime.
Canada	Some fees are payable for using BTC in transactions.
Bulgaria	BTC is regulated as financial assets, the tax rate being 10%.
Norway	BTC is seen as being an asset, therefore income tax can be perceived.
EU	No specific legislation
Netherlands	No specific legislation
Romania	No specific legislation

*Source: Cheun (2015) and Dibrova (2016)*

If Bitcoin should be regulated or not is a matter that still requires careful debate and analysis. The fact is that the reasons why some authors claim bitcoin's need for regulation by the central bank are the most varied. Thus, some believe that the regulation will bring a more stable course of bitcoin and will obtain extra confidence in it (Cruysheer, 2015). Lim (2015) argues that regulation should not be anti-industry; if done well, it may reduce the uncertainty of the business environment where bitcoin is used and may increase its legitimacy. In this case one may ask: given that transactions made over the Internet are not subject to the territoriality principle, the law of which State will apply when trading parties are originated in different countries, and the transaction is carried out in the virtual environment? Such a question may arise due to the fact that the regulation of cryptocurrency use, for example in the USA and Canada produces extraterritorial effects (Cheun, 2015).

Beyond the regulations, over time, many economists have expressed their concern about the use of bitcoin. Paul Krugman is one of them, as he criticized bitcoin because it stimulates the hoarding tendency (Krugman, 2014). Others claim that bitcoin starts acting on the market more like a digital asset property than as a currency (Ren, 2014). Ron and Shamir (2013) showed that at least 55% of bitcoins are dormant and have not been used in transactions between 2010 and 2013, which translates into a tendency to save bitcoins rather than spend it, due to their potential of a raising course generated by the limited supply of bitcoins. Another issue is the high volatility (see chart 1), accompanied by some potential security breaches that can lead to the loss of savings achieved in bitcoins.

**Chart no.1. BTC / USD exchange rate development**



Source: <http://bitcoincharts.com/charts/>

Another criticism aims at encouraging illegal activities as since the launch of Silk Road in 2011, cryptomarket developed very quickly. Christine (2013) estimated that in 2013, monthly sales made on the Silk Road raised at a minimum amount of 1.2 million dollars. Another study conducted 15 months later showed that the monthly earnings increased by approximately 600% and cryptomarket should be seen as “a transformative criminal innovation in drug distribution” (Aldridge and Décary-Héту, 2014, p. 16), therefore easy access to such markets and the ability to trade illegal goods should be one of the arguments used against bitcoin.

### Conclusions

It seems that nowadays bitcoin is seen as the first digital currency, which has been successful (Cruysheer, 2015). Many libertarians and others saw bitcoin as the new holy grail, which provides freedom to economic operators, being the result of spontaneous and voluntary action of individuals. Bitcoin is not the result of a decision of a legal authority, therefore, gradually users agreed on their immediate target - defending the private currency, which is free, non-inflationary, in line with the developments of information technology, for the real dangers, such as issues concerning the reliability of the technology and also consistent reality of the statist canon.

Of course there are economists who keep their scepticism about bitcoin. There are many arguments in the case of the pros, but also for those who want it banned. Although there is currently a large number of businesses that accept direct payments with bitcoin, there are still authors like Ali, Barrdear, Clews and Southgate (2014) and Greene and Shy (2014), who argue that digital currencies have not enough users to behave as a generic alternative to fiat currency. Over time, the private money issue, regardless of where they occurred, was quite tricky. Banning a coin or its disappearance in a natural way have done nothing but to trigger new ones ready to be used by a certain category of individuals. The problem of trust in such currency seems to be a pressing one, therefore whether or not a cryptocurrency can replace the traditional currency remains a dilemma of many economists. The fact is that the trust cryptocurrency enjoys at the moment is not so great, thus we cannot hope that in the next 5-10 years it will replace the traditional currency. There remain a number of questions related to the longevity and ability of a cryptocurrency to be a real alternative to fiat money.

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## **THE POTENTIAL HELD BY VALUE-CREATING NETWORKS – A STUDY ON THE ROMANIAN BEER INDUSTRY**

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### **Abstract**

As organizations from all industrial sectors acknowledge their increasing degree of interdependence, complex business networks tend to replace traditional markets and vertically integrated organizations. In the case of the Romanian beer industry, the complexity of the communication processes and of the relationship between beer manufacturers, raw materials and equipment suppliers, third party logistic companies, shipping companies etc. provide the ideal premises for the development of networks focused on the logistic activities. The information and knowledge flow within the business network often precedes the physical flows, and collecting, using and sharing information and knowledge within the network contribute to value-creating and reducing inventories and logistic costs by integrating and properly exploiting the organizational competencies of all the members, which held important advantages not only for the respective organizations and the relationships between them, but for the whole industry as well.

### **Keywords**

value creation, network, beer industry, inter-organizational relationships, information and knowledge sharing

### **JEL Classification**

L14, L66

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### **Introduction**

In the current economy, the increasing importance of knowledge, the technological complexity and the global competition determined significant changes in the mechanism of creating economic value (Castells, 1996), which lead not only to the speeding the innovation pace and the shortening of the life cycle of most products, but also to the development of new market structures. In the knowledge-based economy, value is generated through the aggregated actions of multiple actors, which means that the classical theory of the value chain (Porter, 1985) is no longer sufficient for describing the complexity of the value-creating processes. Therefore, Porter's value chain, describing mostly the value-creating elements within a single organization, its suppliers and customers, gradually shifts towards the concept of value system (Rajala et al., 2004), in

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which business networks replace traditional markets and vertically integrated organizations. Frequently, companies tend to form extended enterprises which are part of a business model consisting of different cooperative forms, negotiate responsibilities, utilize mediating technology and share resources to achieve superior customer satisfaction and profitability of all members participating to value creation (Rajala et al., 2004). This so-called value creating network model emphasizes the central role of customer, and in general, builds up around him. As a result, every participant contributes and receives value in ways that sustain both their success and the success of the value net as a whole (Stabell and Fjeldstad 1998; Bovet and Martha 2000; Allee 2002) Consequently, companies are creating increasingly complex internal and external webs of knowledge and technological bonds. As the industrial network approach (Håkansson and Snehota, 1995) suggests, companies in a network are economic actors, which are inter-related through a web of resources and activities. Value is created in a network by actors who perform and control activities that are based on control over critical resources, and include social content by developing relationships with each other through exchange processes (Håkansson and Johansson, 1992; Axelsson and Easton 1992).

In the case of the Romanian beer industry, all the organizations involved appear to have every prerequisite for grouping into cooperation-based structures, negotiating responsibilities and sharing resources in order to achieve higher levels of customer satisfaction and individual profitability. These prerequisites include the specialization of organizational competencies (a good example being the raw materials suppliers and 3<sup>rd</sup> Party Logistic (3PL)), the complexity of the inter-organizational communication processes and relationships (due to the large number of organizations involved and the difficulty to coordinate all the operations), the need to improve the accuracy of plans and forecasts and, not the least important, the limited financial power of some of the actors, preventing them to initiate large projects or forcing them to give up on some important opportunities. Therefore, the beer industry in Romania can be regarded as an optimal ground for building value-creating business networks, focused on customer satisfaction. In this sort of a structure, every member contributes to the value-creating processes and gets a share of the outcome in a way that benefits both their individual profitability and the global profitability of the network. Therefore, in order to maximize the value created and their respective shares, the member organizations have every reason to tighten their informational and technological connections. In the beer industry, the main value-creating activities are manufacturing, supply, distribution, storing (packing included), also supported by shipping and marketing, while the actors involved are the suppliers of raw materials and equipment, the distributors, the beer manufacturers and certain specialized intermediaries. Due to the permanent interactions between those actors and to the continuous, cyclic and rhythmic nature of the beer manufacturing process, the communication between actors is complex and intense, even between competitor companies (such as different suppliers or different transporters and shipping companies). This requires a high level of trust between the network members, forcing them to share information and knowledge (for example manufacturers allowing their suppliers access to their operational plans in order to help the latter organize their deliveries at the optimal intervals or providing the customers and distributors with a means to observe the status of their orders etc.)The Informational Technology (IT) is essential for knowledge sharing between all the network members, shaping their individual and collective competitive behavior and allowing them to develop virtual places to contact each other, communicate and trade (such as e-marketplaces). In the



Romanian beer industry, there is a high level of IT usage, especially where logistic activities are concerned, but in order to allow organizations to enter a value-creating network, all the actors should have compatible IT systems and databases, so that they should be able to interact continuously and in real time. On the long term, the common history and experiences of the network members may lead to the development of new knowledge and competencies, specific not to each particular organization, but to the whole network.

The strategies developed by each of the organizations in the network should include a common long-term perspective and actions oriented towards mutual benefits, so that the risk of any of them adopting an opportunistic behavior is reduced. Also, there should be a system for sharing the outcome based on selective incentives, so that the members with a larger contribution to the network's global performances may get a larger share of the advantages provided by the network. This way, by measuring each member's contribution to the global performance of the network (for instance the quantity and value of the information and knowledge shared by a member or generated as a consequence of a member's actions), they may gain access to specific resources (usually informational ones), priority to certain transactions or financial incentives such as lowering certain costs or financial contributions. The information and knowledge gathered through the connections developed within the network would help the member organizations to reduce the informational asymmetry of the buyer-seller relationship, which means that usually transactions are affected by the fact that the parties involved possess incomplete, incorrect or uneven information. While public information is largely open to anybody interested, most economic information is only available to few, usually carefully selected organizations.

The relationships formed between the organizations in the network are an important source of information for all the parties involved, since the actors share not only day-to-day information on prices, volumes and standards (transactional info), but also information and knowledge usually considered to be confidential, such as ways to improve coordination. Moreover, the relationships between member organizations have plenty to gain from sharing information on the actions (present or planned) of other actors, especially in terms of trust and stability. Considering this, the grouping of the organizations in the Romanian beer industry into value-creating business networks would benefit not only the said organizations, but also the relationships developed between them and therefore the whole industry.

### **1. The impact of joining a value-creating network from the organizational point of view**

For an organization, joining a network means creating value through elements both tangible (cost reductions, shortening activities and processes) and intangible (knowledge gathering and creation, improving inter-organizational relationship and building trust, seizing new business opportunities, etc.)

#### *A. Improving activities and processes*

Currently, not just the competitiveness, but even the mere survival of many of the organizations in the beer industry depend on their capacity to keep up with the pace of innovation and technology in the field. For this particular industry, this may include implementing the latest Enterprise Resource Planning (ERP), warehousing and transport

management solutions, using robots and automatic manufacturing technology, and identifying the best ways to improve cost efficiency and environmental responsibility. But since suppliers are greatly scattered, geographically speaking, most of them outside the country borders, which makes direct contact and communication more difficult, and import companies, even though closer to the few large manufacturers, are hard to differentiate and with little financial power, keeping up with the latest technologies is a real challenge, requiring significant efforts. These efforts are not limited to accepting higher costs, but even more, they include the struggle to identify and select the right partners for every logistic activity. Therefore, the organizations in the beer industry need to display a high level of flexibility in their logistic activities, which means they need to simplify their processes and expand the use of IT in all logistic areas.

The first visible effect of joining a network would be an increased capacity of the organization to gather and process information, which is a major advantage, considering that the beer industry, given the large number of organizations involved in its logistics, is highly fragmented. The inter-action between suppliers, shipping companies, distributors, 3PL or 4PL (fourth party logistics) on one hand, and beer manufacturers, on the other, depends on the intensity and frequency of the information exchange, which often hinders or slows down transactions. A solution to this problem could be integrating all those organizations into a network with a dedicated e-marketplace, which would simplify and support the information sharing and contribute to the reduction of transactional costs by increasing informational transparency (crucial for allowing organizations to find and select the optimal offer with minimal efforts and time consumption).

Another important effect of joining a value-creating network and using its IT implements is observed on the internal communication processes and cooperation level within the member organizations. Many organizations, beer industry included, have to deal with ineffective data and information transfer between employees, often due to the overwhelming amount of information needed to be shared. By using the IT mechanisms that operationalize the network (such as the e-marketplace and the compatible software solutions that support the informational exchange within the network), all the online actions of an employee are registered in a history database that can be accessed by the those interested, no longer depending on detailed information provided by others in order to do their own tasks. This way, internal communication processes are simplified, requiring much less time, while the amount of information circulated is reduced, significantly lowering the informational overload.

However, there is also an important challenge associated to the resistance to change displayed by some of the actors, who might consider that joining a network and using its specific informatics and informational tools would only increase competition and negatively impact on their short-term performance. Even worse, some might consider that the new way to interact within the network would affect the existing long-term relationships. Adopting a new pattern to initialize and shape inter-organizational relationships brings substantial change for all the partners, and in order to accept and implement those changes, they all have to define and share the resulting benefits. More often than not, changing the way transactions are being made determine structural change for the organizations involved (such as designing new positions and departments or eliminating obsolete structures), which is bound to raise questions and criticism on the part of those affected. Therefore, the first step in the process of joining a value-creating network would not be the making of a dedicated e-marketplace, but the operationalizing of change

at the level of organizational culture and structures, especially through training and intensive information sessions.

#### *B. Cost reduction*

Most of the logistic operations performed by the organizations in the beer industry are repetitive (contacting potential suppliers and requesting for proposals, managing the material flows within warehouses and between all the parties involved, tracking and tracing orders etc.), and highly vulnerable to human errors and diminishing worker motivation and customer satisfaction. Reducing the number of repeats for those operations and removing unnecessary steps through operation automatization and information sharing is a perfect way to reduce operational costs associated to useless interactions and low productivity. Also, the use of the IT implements that make the network operational allows the member companies to reduce the time and effort invested in finding and comparing proposals in order to identify the optimal one, and consequently contributes to reducing the costs associated with those activities. Another advantage would be the higher level of transparency regarding prices, those being available and traceable for all the members of the network, which eventually leads to more intense competition between sellers and a cascade of financial benefits for the actors situated downstream in the network and above all, the end consumer. However, most companies agree that even though there are some costs associated to joining such a network and updating the software in order to meet compatibility conditions, the savings deriving from spending less time to find, test and contact potential partners and from improved inter-organizational communication processes overcome them by far.

#### *C. New business opportunities*

Besides the financial incentives, joining a value-creating network and a dedicated e-marketplace may improve inter-organizational connectivity, lead times and informational transparency. By using the specific tools of the network, the organizations in the beer industry would eventually expand their competencies on four separate dimensions:

- The *know-how* dimension – allows the companies to improve their experience and knowledge base, as well as the individual competencies of the employees;
- The *know-why* dimension – provides an opportunity to analyze the causes for variations of the demand for the end product (beer), or for the products and services needed for its manufacturing and distribution, as well as the significance of the changes in the behavior of the other network members;
- The *know-what* dimension – is the basis for process optimization and performance improvement along the supply chain;
- The *know-who* dimension – refers to the inter-organizational relationships within the network and the direct contact to the main decision-makers.

Since supply is highly fragmented in the beer industry, having quick access to a large array of different suppliers implies getting lower prices, products and services of a better quality and better adapted to the new trends in the field, as well as a chance to partner with renowned companies otherwise inaccessible. Also, the network can easily expand with little to no additional costs, considering that it benefits from the sharing of information regarding buyers and suppliers provided by the members. As for informational transparency, the network may develop track and tracing tools such as automatically sending all members notifications referring to the moment a transaction has been closed and in whose benefit, or

to the moment a potential buyer checks a proposal, so that informational asymmetry is significantly reduced and negotiation is based on more accurate information. All member organizations would benefit from those aspects, but the small companies are the ones who get the most out of joining the network, since they have the opportunity to partner with important actors on the market, they wouldn't get access to otherwise.

## **2. The impact of joining a value-creating network from the relational point of view**

By joining a value-creating network and accessing a dedicated e-marketplace, the organizations in the beer industry may expand their interactions on multiple levels, starting with information gathering and negotiation and ending with the post-transaction phase, when the main focus is on achieving a higher level of mutual trust. Moreover, the member organizations can better control their value-creating processes and monitor each other's contribution to the value system, which allows them in the end a more suitable distribution of the benefits resulted from the collective actions and the increased level of global performance of the network. So, if during the information gathering and negotiation phase the focus lies on informational transparency, communication speed and continuity, and the effort to improve the level of customer satisfaction, during the transactional and post-transactional phase the effects would be measured in terms of increasing the level of logistic processes efficiency, as well as in terms of initiating new partnerships and trust-based inter-organizational relationships.

### A. *Supporting negotiation* translates into:

- Reducing transactional costs for the member companies (the costs associated to seeking new suppliers/customers, the cost generated by the information gathering, costs specific to the processes of negotiation, benchmarking and decision-making);
- The overall cost reduction due to increased transparency and suppliers competition;
- Better and faster communication among network members (online real-time communication overrides geographical and global time barriers);
- Increased quality of the available market information;
- Increased efficiency and customer satisfaction;
- Saving the time used for bureaucratic, repetitive actions, due to automatization.

### B. *Improved efficiency of activities and processes* is the result of the:

- Increased speed and flexibility for the transactions between organizations;
- Real time informational flow – fast communication improves inter-organizational relationships and connects all actors within the network;
- Access to a dedicated e-marketplace – allows inter-organizational interactions by removing technological barriers, since the basic condition to access the IT implements of the network is to have the compatible technology;
- Reducing the whip effect by improving coordination between the organizations involved in performing a certain logistic activity or process or by coordinating the demand planning actions of all member companies;
- Decreasing the number of info transmissions by simultaneous messaging (for example automatizing the *request-for-proposal* procedures) and the number of communication errors due to human intervention;

- Electronic processing of transactions - causing cost reductions, increased productivity and global improvement of the order fulfillment intervals;
- Shortening the intervals between order placing and payment registration;
- Spending less time to control and monitor order specifications;
- Centralizing the relevant information for the network members and granting them full (24/7) access to them.

C. *Initiating new partnerships and improving the general level of inter-organizational trust* is another type of effects the network may have on the inter-organizational relationships between the members, reflecting upon:

- Extended areas of influence for the organizations willing to join the network, since it provides an opportunity to develop new relationships and gain access to new customers and supplier;
- Expanded customer databases for the suppliers in the beer industry, as well as suppliers databases for the buyers;
- Equal opportunities for all actors, since the request-for-proposals are automatically sent to all the members registered as suppliers for the respective product or service;
- Higher informational transparency leading to a higher level of protection against opportunistic behavior, and supporting trust between network members.

All those aspects considered, joining a value-creating network by the organizations in the beer industry brings a series of advantages from the relational point of view, such as:

- Increased negotiation power for buyers (especially the beer manufacturers, acting as main actors in the network);
- Better quality and customer service standards due to more intense competition between sellers;
- In the case of reverse auctions (frequent when it comes to purchasing complex equipment, manufacturing or bottling lines by the beer manufacturers), the buyer has the opportunity to select suppliers which can be easily replaced, without important costs;
- Higher willingness to cooperate among network members: for instance, a beer manufacturer can cooperate with several suppliers, one or more 3PL and shipping companies, as well as its distributors and companies providing marketing, financial or insurance services; also, cooperation can be observed between companies who would normally be competitors, but who can join capacities and competences in order to seize an important contract, which eventually leads to better coordination and reduces the whip effect;
- Reducing the technological differences between member organizations, which allows better communication and coordination and positively impact the whole industry;
- Reducing the number and impact of inter-organizational conflicts due to increased transparency and the existence of incentive distribution mechanisms.

### **3. The impact value-creating business networks on the industry**

Integrating the organizations in the beer industry into value-creating networks and using its IT implements allows them to quickly acknowledge the structural and strategic changes within the industry (rather frequent in this sector). While the economic environment

becomes more and more competitive, there is a growing need for inter-organizational coordination and collaboration. The information and knowledge sharing, the setting of commonly accepted standards (as in the case of Ursus and its distributors), building trust and insuring equity, as well as coordinating informational and knowledge flows is no longer a luxury, but a necessity. Usually, managers rely on their experience to react to the variations of the economic environment, but as the complexity of interactions increases and organizations tend to specialize and develop their competencies, mere experience is no longer enough to make them cope with situations they have never faced before. For the organizations in the beer industry, there is an acute need to increase the speed to react to the environmental stimuli and to reduce the communication latency (the interval between the moment a variation is perceived and the moment the information is sent to the decision-maker). A dedicated e-marketplace would allow the organizations in the beer industry to achieve this, which would eventually translate into cost reductions since there would be no more delays in acknowledging the reactions of the other network members and in gathering valuable information from the environment. For the entire network, collaborating to reduce the negative impact of certain variations of the components of the environment means being able to reduce lead times, inventories, running out of stock and disrupting the activities performed throughout the network. Also, it would allow the network to improve its global ability to respond to the end consumer's expectations, therefore avoiding errors and unnecessary costs (such as the case of the failed launch on the Romanian market of some products that, even if proven successful elsewhere, were not able to attract local consumers).

The main principle guiding any organization integrated in a value-creating network is to permanently struggle to maximize the global value created across the network, by:

- Clearly stating the values the network has to go by (mainly focused on information and knowledge sharing and avoiding opportunistic behavior)
- Aligning its operations and organizational culture to the network values.

For beer industry value-creating networks, the organizational culture would not be focused on radical and continuous innovation, but rather on operational excellency: the members have limited possibilities to fight competition through technological innovation, since there are a series of rather strict standards regarding beer recipes, which do not allow major changes of the manufacturing processes, but they can significantly improve the operational efficiency of the logistic activities they are specialized on. All the network members would therefore try to integrate the good practice models other members share into their current activity, improving their own knowledge bases and organizational competencies. The main focus would be on specific improvements of the quality and viability of products (including raw materials, packages, machines and equipment), the customization of warehousing, transport and marketing services, improving the material, financial and informational flows and the accuracy of plans and forecasts. The result would be the making of a common organizational culture for all the network members, focused on gradual evolution rather than on radical change.

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## **SUSTAINABILITY IN ROMANIAN BANKING: A PROMISING NEW BUSINESS MODEL OR "BUSINESS AS USUAL"?**

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### **Abstract**

For a long period, sustainability has been a marginal reason in decision-making process in the financial sector. Although environmental risks were referred to in the financial analysis of financed companies, or financial market has offered some niche products or investment funds in environmentally and socially responsible businesses, banks have not particularly valued those businesses, and, the less willing they were to hamper credit analysis of companies with such requirements. Only recently, driven by the challenges of contemporary development, by the necessity to regain communities' trust, authorities and companies' confidence, banks have started to consider the requirements of sustainability, acting to reconcile the financial objectives with the environmental, social and sustainability issues. Most of these actions, e.g. principles and codes of conduct relevant for credit risk analysis and business decisions, have, however, a voluntary nature. This paper examines the annual reports issued by Romanian commercial banks or by the central bank, in order to investigate the existence of explicit elements of environmental and social sustainability in financing activities, or voluntary compliance to the principles of sustainable development, and thus to understand the actual extent of Romanian banks' involvement in enforcing sustainability issues.

**Keywords:** responsible business, sustainable banking principles, Romania

**JEL Classification:** O44, Q56, G21

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### **Introduction**

The sustainability issue in banking industry is not a modern-days' question. It has begun in early capitalism, when banks, as intermediaries between capital owners and companies, have become aware of promoting the interests of the communities they belong to (Weber, 2012). However, the real concern on sustainability started in the second half of the XX<sup>th</sup> century, by highlighting the environmental issues that aggravated credit risks, thus directly affecting the profitability and even the existence itself of the credit institutions. Influenced by the productive sector, which has already recognized the importance and the opportunities of integrating social, community and environmental concerns in their



business strategies (such as Corporate Social Responsibility - CSR), “sustainability became a business case in the financial sector” (Weber, 2012, p. 17). Integrating the sustainability issues into policies, strategies, products and services of the financial industry should not be only a fashion or an opportunistic behaviour, but a true business model. In different words, banks which have early acknowledged the value of sustainable development could avoid financial risks arising from environmental or social impacts and can even generate additional business opportunities.

### **1. Literature review**

Financial institutions relate with the environment in multiple instances, such as: investors, financial innovators, valuers, powerful stakeholders, polluters, and even as “victims” of environmental changes (Delphi International Ltd and Ecologic GmbH, 1997). Financial sector is not homogeneous and its constituents (i.e. banks, investors, insurance companies etc.) perform in highly segmented markets, with different instruments. Thus, the banking sector can be very effective in the SMEs sector but relatively limited in sector of large companies. Through their lending practices and encouraged business models, by addressing the information asymmetry in credit policies (Clarke and Boersma, 2016; Cocriş, Sârbu, 2017), and by providing information to the market and regulators, commercial banks could increase their contribution to sustainable development, and influence consumer behaviour through the financial products they offer.

Unlike SMEs, large companies are influenced mainly by equity investors. However, the interest of large investors in environmental issues and sustainability is not on par with their influence in decision-making processes in large companies (Delphi International Ltd and Ecologic GmbH, 1997) and, certainly, lower than the interest of commercial banks, which are more careful about their reputational risks.

Nevertheless, there are some progress and changes of attitudes in this sector, but they come, paradoxically, not from large equity investors, but from small investors (i.e. more willing to consider environmental issues in their investment decisions) or from the environmental investment funds. Another explanation for the (relatively) indifference of large investors to environmental and social issues comes from the large companies themselves. Forced by public opinion and the stakeholders’ pressure to pay attention to sustainability issues and to invest more in environmental actions, corporations feel increasingly frustrated that institutional shareholders (investors) do not appreciate and do not participate due to financial, sometimes grasping, reasons. Quite often, the executives of large companies are stunned by the reluctance and conservatism of institutional investors regarding environmental innovations or products based on the concept of eco-efficiency.

The large scale adoption of sustainability practices in banking is not always reconciled with the very important, systemic role of these financial institutions in the national economies or worldwide (Jeucken and Bouma, 1999), (Campiglio, 2016). Undoubtedly, the banking sector has always been highly controlled and regulated, particularly on monetary and credit policies, but, in the last decades, the range of banking risks expand to include environmental pollution and climate change. Furthermore, there is a strong pressure from stakeholders and from community as a whole, for banks to assume environmental responsibilities.

In many cases, banks feel satisfied with getting involved in domestic programs aiming at reducing the impact of their activities on the environment (e.g. reducing energy and supplies consumption, charity and community programs etc.) or to create niche

"sustainable" products, without applying the principles of sustainability to the major investment projects that are employed and whose environmental footprint is huge, compared with those of financial industry.

Various scholars and organizations (Pisano, et al., 2012), (Korslund and Spengler, 2012), (Kern, 2014) deplore that the recent financial and economic crisis has not led to a reinforcement of concerns and demands to integrate sustainability practices in banking. A large number of financial innovations have proved to be dangerous not only for the financial sector and the national economy, but also, directly or indirectly, for the natural environment, communities and social equilibrium. It would have been expected that, with the slowdown of the financial turmoil, these cases be carefully investigated, and that sustainability exceed its peripheral status in the newly enforced banking strategies. However, banks were concerned to recover losses and have resumed, with a focus on financial risks, the business model existing before the crisis. Researchers found that stakeholders' pressure was not strong enough, and regulators authorities have been reluctant to influence corporate environmental discipline through financial policies and guidelines, in order to transform environmental concerns in mandatory financial regulations. Although policy interventions have focused "to reduce systemic risks, (...) on addressing short-term biases, misaligned incentives and better stewardship of assets, as well as improved transparency, governance and accountability" (Zadek and Chenghu, 2014, p. 2), these interventions have committed in a lesser extent environmental and social responsibility.

Undoubtedly, the existing banking performance indicators insist on economic performance and expected financial risks, without significant reference to environmental or social issues and the cost that certain financial decisions may entail. As long as there are alternatives that can lead to better financial performance, "as long as manager's performance is mainly judged on short-term performance indicators, managers have no incentive to invest in sustainable investments" (Stefania Rossi cited in Pisano, et al (2012, p. 49); consequently, investors will invoke their permanent responsibility towards shareholders and they will put in the background the sustainability concerns, with considerable long-term effects (Delphi International Ltd and Ecologic GmbH, 1997).

Adding to this the lack of specific environmental regulations for financial intermediation activities or banks' circumspection not to be accused of being excessively interfering in clients' activity, we can explain why financial institutions have slowly reacted to integrate in their requirements the analysis of their customers' environmental performance (Oyegunle and Weber, 2015).

Banks are not very interested in promoting strategies regarding the environment and sustainability, as they felt themselves working in a friendly environment industry, compared with different sectors such as the extractive and intensive industries, energy, construction etc. The financing policy was mainly defensive, preferring to align to each particular industry requirements or to national regulations, than to impose their own requirements. Moreover, if the coercive power of regulations in the environmental and social area was weak, banks were satisfied complying with the minimum requirements, considering that effective regulation and control should happen "at the source" and not as pre-condition for credit granting.

Most banks voluntarily adopt principles and codes of conduct, focused on the relation between the financial sector's activities and the environment, such as: Equator Principles

(2003), Principles for Responsible Investment (2006), Global Impact Investing Network (2007), Sustainable Banking Network (2012).

## **2. Research methodology**

The goal of our research is to investigate whether and to what extent Romanian major commercial banks and the national banking regulatory authority (i.e. National Bank of Romania - NBR) are considering the principles of sustainability and have referred this kind of activities in their annual reports issued in the last 5 years (2011-2015). We are mainly interested to find any reference regarding the voluntary agreement to sustainability initiatives as mentioned above, and any specific tangible actions undertaken (i.e. number of actions, economic sectors, amounts etc.). When possible, we distinguish the CSR – type actions (e.g. volunteering, charity etc.), even some of them add the ecological dimension to the social one, and prefer to focus on responsibility applied to business lines. In our investigation we consider nine major banks operating in Romania, i.e. their aggregate assets' value exceeding 77% of the total banking system' assets (National Bank of Romania, 2016; Morutan, Badulescu, 2016), namely: Banca Comerciala Romana / Romanian Commercial Bank (BCR) – part of Erste Group Austria (15.76% market share), Banca Română pentru Dezvoltare (BRD) – part of Societe Generale France (13.04% market share), Banca Transilvania (12,57%), Raiffeisenbank Romania (12.57%), UniCredit Tiriatic (8.11%), CEC Bank (7.31%), ING Bank N.V. Romania Branch (6.2%), Alpha Bank Romania (3.48%), and respectively, a smaller bank – OTP Romania (1.3%), ensuring the representativeness of the sample for the whole Romanian banking market.

## **3. Results and discussion**

Banca Comerciala Romana mentions the implementation of several projects for sustainable energy production, based on a loan of EUR 10 million (with EBRD support) since March 2010, and other EUR 5.5 million funding for the first project in organic waste collection integrated management system (Romanian Commercial Bank, 2010). Most of the others relate to the CSR projects involvement – supporting disadvantaged people, education, financial support and advice for social economy enterprises. We found no references regarding the voluntary embracing of the sustainability principles (e.g. Equator principles, Sustainable Banking Network etc.).

Romanian Development Bank's (BRD) reports are more specific, providing detailed information on the sustainable projects involvement. The annual reports of 2014 and 2015 present a specific section dedicated to Responsibility Applied to Business Lines and Equator Principles, stating that "BRD applies the Equator Principles since 2009. This commitment, taken by Société Générale Group, provides, for the assessment of social and environmental risks of projects, an allocation of over 10 million USD" (Banca Romana pentru Dezvoltare, 2016).

The information disclosed by Banca Transilvania are also consistent with the CSR initiatives area and its involvement in the local community, educational support and career guidance to disadvantaged young people, reforestation missions with voluntary participation, extensive financial and entrepreneurial education, benefiting from allocation of more than EUR 3 million during the last 10 years (Banca Transilvania, 2016). On the other side, "green awareness is one of Banca Transilvania's major concerns" (Banca Transilvania, 2014, p. 23), and the number of actions towards environmental protection are constantly increasing, e.g. the new office building housing built according to all green-

technology rules and energy efficiency. Since 2013, Banca Transilvania affirms its undertakings towards energy efficiency in all its premises, encouraging the use of recycled materials, and also striving to educate their clients towards e-banking and on-line banking (Banca Transilvania, 2014, p. 23). However, we found no references regarding the voluntary adoption of the sustainability principles (e.g. Equator principle, Sustainable Banking Network etc.).

Raiffeisen Bank mention in its last years' reports several important financing granted to projects meeting robust sustainability criteria, or co-financing energy efficiency projects, e.g. the EEFF program (Energy Efficiency Finance Facility) or Green Industry Innovation Programme Romania (supported by Norwegian funds) in different economic sectors: construction materials, electrical equipment, petroleum industry equipment (Raiffeisen Bank, 2016, p. 32). Although we have not found references to the voluntary adoption of principles related to sustainability (Equator principle, Sustainable Banking Network etc.) in the annual reports of the past five years there are comparable references like "pillars of our sustainability are: Staff – Environment – Market – Society" (Raiffeisen Bank (Romania), 2013, p. 18).

UniCredit Tiriac Bank makes in its annual reports extensive reference to its involvement in social entrepreneurship – defined as a business created to solve a serious social problem in a sustainable manner – by providing financial support and consultancy by its employees. Surprisingly, UniCredit Tiriac Bank (Romania) does not mention any financing of sustainable business, although a Special Report issued by its parent bank (UniCredit Group) presents steady information regarding the combination between the bank's financial and sustainability performance. The report mentions UniCredit participation in the European Bank for Reconstruction and Development (EBRD) initiative for the long-term financing of a green field wind project in Topolog (close to Tulcea, Romania), project in full commercial operation since April 2014, with an installed capacity of 84 MW (UniCredit Group, 2015, p. 3).

CEC Bank, a state-owned bank, does not disclose on its official website information on getting involved in any sustainable environmental or social projects or on voluntary compliance to the principles of sustainability in banking, as they were set out above.

Alpha Bank Romania does not mention any financed projects based on the principles of sustainability. Instead, the bank's official website presents a section dedicated to its involvement in environmental actions and launching, since 2010, of the Alpha Green Platform, committed to social responsibility projects, with focus on the environment protection. There are also mentioned several projects from educational and environment field which were supported by the bank, as "responsibility towards environment being an essential condition for a sustainable development" (Alpha Bank Romania, 2010).

Although ING Group (Netherlands) is one of the most dynamic international banking groups and involved in promoting sustainability, the Romanian branch seems not to be as much involved in this type of actions. Most of the disclosed information relates to the support provided for social economy enterprises, social entrepreneurship, environmental education and recycling (ING Romania, 2016).

More detailed (and positive) information are disclosed by OTP Bank Romania (a subsidiary of OTP Hungary), a bank with a lower market share than the previous ones. According to its reports, OTP Bank Romania has been involved in "financing the use of renewable energy resources: in 2014, 5 projects were granted, aiming to construct photovoltaic plants" (...) at 28 million RON (OTP Bank Romania, 2014, p. 27). For 2015 we found "8 financed

projects focusing on renewable energy, with a total amount of 55 million RON and 36 new projects aiming to improve energy efficiency, with a total amount of 79 million RON (OTP Bank Romania, 2015, p. 26). OTP Bank Romania also mentions its involvement in financing local authorities for supporting sewerage systems, acquisition of technologic equipment, pipes systems for collecting rain waters, rehabilitation of swampy areas.

Regarding the main financial regulatory authority, i.e. National Bank of Romania – NBR, unfortunately we did not find any reference on this topic neither in annual reports nor in the financial stability reports issued by NBR, in the last 5 years. Probably this is due to the lack of mandatory financial regulations in the national legislation or in the decisions of European Central Bank (ECB) on sustainability and environmental responsibility. Actually, there is no incentive or any reputational consequences that would have led NBR to voluntarily comply to these principles or associations. The only mention regarding the social and environmental responsibility related to the new bank business model was found in the presentation delivered by Nicolae Danilă, member of the board, at the launching of Oliver Wyman Report "The Shape of Things to Come – What recent history tells us about the future of European Banking", on 27<sup>th</sup> of November 2013 (National Bank of Romania, 2013). For a key institution in the banking system it is far too little and, obviously, with no impact in the regulation area.

### **Conclusions**

The importance and role of the financial institutions in promoting sustainable development are well established, as their decisions to lend companies and projects could worsen or could be beneficial for the natural environment, for communities and society as a whole. However, the improvement in regulation and supervision of financial institution activities for sustainable development are partial and inconclusive. One explanation could reside in the fact that the actions of credit institutions are most often indirect. Another explanation comes from the reality that the paradigm shift is not rapid nor easy, it is achieved gradually by designing and implementing a wider range of policy instruments. Finally, the effect of these policies is revealed by a delay in the economy and society.

After a period when the banks' attention for the environment appeared to be circumstantially, banks have approached their responsibility for sustainability issues in two different ways. On one hand, they have restructured their internal environmental management systems to reduce the impact of their own activities on the natural environment. On the other hand, they have improved and developed more sophisticated business analysis procedures, by including environmental criteria (increasingly severe) into their credit assessment process. However, sustainable actions are based, mostly, on compliance to codes and voluntary principles, and less on mandatory regulations.

In this paper, we have analysed official reports issues by the most important commercial banks and by the national regulator bank authority in Romania, for the past five years, and found little evidence on banks' involvement and rather a marginal attention payed to these issues. There are banks that simply do not have any indication about voluntary adherence to sustainability banking principles or any tangible actions in this area. Most of the banks which have inserted related references, did this briefly, sometimes formal, without indicating their scale in the business portfolio. In some cases, these information are associated with the classical CSR type actions (e.g. volunteering, charity, education etc.) and they are not placed where they should be: responsibility applied to business lines.

Certainly, our research investigation and results are limited and do not cover the entire Romanian banking system in Romania, and did not provide any comparisons with other banking systems. Nevertheless, our preliminary research indicates that sustainability issues are neither part of core business of Romanian banks, nor a significant concern for central bank. Further research should clarify the influence of sustainability policies of parent-banks on their Romanian subsidiaries.

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## TEACHING SUSTAINABILITY IN TOURISM. A RESEARCH AMONG ROMANIAN MASTER STUDENTS IN BUSINESS ADMINISTRATION

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### Abstract

The importance of education for sustainable development has enjoyed unanimous recognition for long time, but only recently it becomes increasingly obvious that education for sustainable development is not only about acquiring values, theories and knowledge. Education for sustainable development should encourage students to think in original and innovative ways and raise questions about their involvement and responsibility in a sustainable future world. This paper focuses on investigating issues related to the attitude of master students in Business Administration from a public university in Romania toward sustainability and the extent to which universities offer knowledge and skills regarding sustainability in the most appropriate forms and methods, in accordance with the requirements of economic and social practice and, not least, with the expectations of younger generations. We have used a survey-based research, which revealed specific attitudes and preferences of the investigated young people, indicating the main challenges faced by the education for sustainability and the directions towards it must be oriented.

**Keywords:** sustainability education, tourism, master students, Romania

**JEL Classification:** Q56, I23, A23.

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### Introduction

The challenges of changing the pattern of economic development and the shift toward a more sustainable and eco-friendly development of our society and planet needs first of all a shift in our way of thinking. Nevertheless, education has to play a central role in shaping the attitude necessary to make this shift, and this raises many challenges on the role of higher education institutions (HEI) in orientation towards sustainability of attitudes and perceptions of younger generations.

This paper presents the results of a surveyed-based research carried on among master students in Business Administration, trying to reveal how young people, future employees or entrepreneurs involved in the business sector think about the necessity and way to “teach sustainability”, which are the limitations and how we, as educators, have to change our way



of thinking and adapt to students' needs. Moreover, scholars and policy makers involved have to adapt themselves and adapt the curricula and the contents to address sustainability issues in everyday life and in the companies. In the field of hospitality and tourism is estimated that academic programs unsystematically conglomerate theoretical knowledge with generic management elements and on the job formation, so topics related to ethical or responsible behaviour are treated in a theoretical and generalizing manner without to focus on the individual behaviours and beliefs. It is thus necessary to revise the academic curricula to cover all key aspects of development, i.e. economic, social, environmental, and, more recently, ethical sustainability in the subjects taught and in the content and teaching method.

The paper is organized as follows: in the first part we focus on the theoretical background and presenting previous similar researches, in the second part we present the research methodology, in the third part we discuss the findings and results, and in the final part we conclude.

### **1. Literature review**

Analysing how learning processes are adapted to the requirements of sustainable development, UNESCO Report "Education for Sustainable Development" (UNESCO, 2011) supports the development of key skills for sustainable development practices, which are participatory learning and the cooperation between higher education institutions and business environment. The authors suggest that education for sustainable development has to go beyond simply acquiring values, theories and knowledge. Education for sustainable development should encourage students to put critical questions and think in a practical and innovative manner.

In a large research regarding students' attitudes and skills for sustainable development, conducted for five consecutive years within UK universities, Drayson, Bone and Agombar (2012) and Drayson (2015) found that HEIs and the business environment accrue the highest expectations regarding preparation for life and career. The education system is considered the main vehicle for accessing knowledge on sustainable development, although the level and structure of knowledge are somewhat unsystematic and asymmetrical, with theoretical emphasis on preserving the natural environment and ethics, and neglecting knowledge and practical skills for sustainable business development. However, students clearly prefer to change the course content in the sense of combining theoretical knowledge with social and environmental skills, being reluctant to overload programs and courses with extra content on this subject.

According to Dey (2008) and McKercher et al. (2014), academic programs in hospitality and tourism have difficulty in raising the awareness and preparing students for a responsible and sustainable behaviour. The weakness seems to be related to curricula, focused largely "on employment-related training and generic management education" (McKercher, et al., 2014, p. 456). Typically, the link between an individual action and the consequences of these actions is not highlighted; the topics on ethics, sustainability, responsible behaviour and the like are too general, with no focus on individual. Therefore, the reform of the university curricula should take into consideration addressing this issue at the individual level, as long as corporate and social approaches do not seem to have achieved their intended objectives.

On the other hand, Aloj Totàro and Simeone (2001), Mifsud (2010), Zsoka (2013), Badulescu et al. (2014), Roşca (2017) consider that the inclusion of subjects such as

Environmental Education, Ecology or issues of sustainable development in curricula has had a positive effect on the environmental awareness and ecotourism involvement of young generations. Young people agree that the value of natural and cultural heritage, especially in regions and areas where tourism plays a significant role in local economy, should be strongly considered when deciding on exploitation and protection of natural resources for touristic purposes. Meanwhile, students believe that the actions of the individuals, groups of volunteers or sustainable entrepreneurs are insufficient if they are not supported by governmental projects and initiatives on large scale and on long-term.

Analysing the effects of education for sustainability in HEI, researchers argue that students with higher academic performance prove to possess a better knowledge of sustainability-related concepts, they consider the sustainability criteria when purchasing products and are even willing to pay slightly higher amounts for buying green products (Jeong, et al., 2015), although it affects their lifestyles as consumers (Kagawa, 2007), (Zsóka, et al., 2013), (Sammalisto, et al., 2016).

The process of training academics who teach subjects related to sustainability undertakes a greater importance. According to Cebrian and Junyent education for sustainable development orients the trainers on acquiring knowledge and practical skills related to nature and natural sciences, but not on other types of learning or values such as ethics, taking personal responsibility, “attitudes towards sustainability and the management of emotions among their future primary school students” (Cebrián and Junyent, 2015, p. 2768).

Thus, education for sustainable development needs to focus on the creation of a more integrated, comprehensive and complex vision, based on the interdependence of social, environmental, economic and cultural aspects (Cebrián and Junyent, 2015, pp. 2781-2783). Andersson et al. (2013) examines whether the participation of teachers in education courses designed to provide the tools necessary for teaching can generate pro-sustainable development opinions and norms among the future teachers. Unlike McKercher et al (2014), who consider that including issues related personal responsibility and sustainability has not had a significant impact on the personal response, compared to those attending courses with no references to these topics, Andersson et al. (2013) have discovered positive results among those who participated, compared with those who did not participate in these courses, for almost all the analysed attitudes and perceptions. Moreover, the teacher students who had already had beliefs and an interest in sustainable development became more enthusiastic and more convinced that these things must be sent (delivered) to the youth, including the idea that a more efficient environmental protection and sustainable development should be imposed through more authoritarian forms of government (Andersson, et al., 2013).

## **2. Research methodology**

The present paper aims at investigating attitudes and beliefs concerning the education for sustainability among students in Business Administration, by using a survey-based research. As a first step, a questionnaire consisting of 25 questions was designed and then administered (as paper and pencil type and on a voluntary basis), during February 2016, to 93 master students from the public university in Oradea, Romania. The survey method used was the guided survey, which allowed us to include in the sample representative respondents, better corresponding with the research aim. The students who have participated in the survey were registered as master students, both in their first and second

year, on two business administration master programs offered by the university, i.e. Tourism and Hospitality Economics and Business Administration (Romanian acronym: EAATIO) and Regional Business Administration (Romanian acronym: AAR).

The addressed questions investigate issues such as: effectiveness of knowledge related to sustainable tourism, how higher education enables shaping sustainable attitudes and behaviours, but also various issues regarding students' future career, such as interest and motivations for an entrepreneurial career, attitudes toward sustainability practices in the case of starting their own business etc. The questionnaire also collected data concerning age, gender, matrimonial status, residence, occupational status.

The description of the sample is as follows: most of students (i.e. 68%) are enrolled in the master program of Tourism and Hospitality Economics and Business Administration (EAATIO) and the rest (i.e. 32%) in Regional Business Administration (AAR) master program, while the distribution by years of study is relatively balanced (i.e. 56 % in the first year and 44% in the second year).

The respondents are mostly female (69%) and single (92%). Nearly half of respondents (i.e. 48%) have their residence in a city, and the rest resides in small towns (23%) and rural areas (29%). As occupational status, most of the respondents are employed in the private sector, full-time (60%) or part-time (5%), followed by those who are not working, being full time students (17%). A relatively small proportion of the respondents (i.e. 10%) are active entrepreneurs, and 8% of the respondents are employed in the public sector.

### **3. Results and discussion**

In terms of their future career, the surveyed students are quite clearly oriented towards an activity in the real economy sector, i.e. about 43% want to be entrepreneurs, and 38% to work as employees in private firms, and the rest intend to work either in the public sector (11%), to continue their studies (8%) or unspecified (2%). Among the present and intended entrepreneurs, over two thirds are considering a business in tourism (perhaps, not exclusively) and most of them see it as developing in a sustainable manner.

Questioned on the necessity that education for sustainable development should be actively incorporated by universities, over two thirds of the respondents (i.e. 68%) "strongly" consider that it should be included in curricula and 22% "to a moderate extent". Beyond the positive aspect, we must consider that the responses follow a desirable pattern and, especially, that the question is, at this stage of research, general and non-specific, with no specific reference to the number of subjects proposed, to the content of the courses or to the ratio between the hours allocated to theoretical knowledge, respectively, to practical activities related to sustainable development.

In this regard, the second question assumes an explanatory role, trying to find out what students really want (or believe it would be useful) to learn / be taught on sustainability, with direct reference to tourism.

The analysis of responses (see Table no. 1) shows that the vast majority of students are consistent in their general options expressed about the content and the general orientation of the university syllabi, i.e. displaying a greater openness to the requirements of the real business sector and a more applicative knowledge about sustainability. Thus, the skills of coping and solving practical situations cumulate (as "partial" and "total" agreement altogether), an impressive score of 88%, and "the efficient use of resources" cumulate 79% of the responses. It is also important to combine short-term objectives with long-term

objectives in companies operating in tourism (30% totally agree and 35% partially agree), although the effective manner of this conciliation is still confused and mostly declarative.

**Table no. 1. What do you think students should learn about sustainable development in tourism? (agreement with the item, as % of the responses of the surveyed students)**

	Strongly disagree	Partially disagree	Partially agree	Totally agree
Skills of adapting and solving practical situations	3%	9%	26%	62%
Ethical issues and personal responsibility associated to tourism	21%	27%	33%	19%
Global vision on the effects of tourist activities on the environment and human communities	24%	19%	37%	20%
Efficient use of resources	10%	11%	48%	31%
Combining short term objectives with long term objectives of companies operating in tourism	15%	20%	35%	30%

However, we cannot state that educational, ethical and awareness-related effects of tourism activities on the environment and on human communities, and personal responsibility, are looked down upon by the respondents. Although they ranked significantly lower than previous options, the aggregate score of “total agreement” and “partial agreement” slightly exceeds 50% of the responses. It indicates that either these issues are not taught in an integrated manner in the assembly of knowledge and relationships between the environment and economic (sustainable) development, or the academic approach is formal and does not stimulate practical actions. Finally, it may indicate that sustainability is (still) an overrated concept in the academic environment, and it cannot find an equivalent response from the business environment, government policies or even informal education.

Once defined the priorities of learning, the students’ attitudes and skills for sustainable development, the following question has investigated which are, in students’ opinion, the most appropriate teaching methods and tools (and therefore learning) of the elements of sustainability. Respondents were offered five alternatives, ranging from the theoretical content to practical skills and from academic subjects per se to extra-curricular initiatives, and asking for the respondents’ agreement with the proposed items (see Table no. 2).

The respondents are reserved about the over-sizing of the subjects with elements of environmental and social issues (i.e. 39% “partial disagreement” and 11% “strong disagreement”) and also on the possible emergence of new subjects or study modules, yet they appreciate the inclusion of practical skills in the content of existing courses (i.e. 82% of the respondents “partially” or “totally” agree with this statement, see Table no. 2). The way of teaching this topic and the skills and attitudes are also important, and, to some extent, atypical. Recognizing the role of the university as the main form of access to knowledge on sustainable development, the respondents tried to reconcile, in a pragmatic and innovative manner, the potential mismatch with the requirements of social practice and business environment. Specifically, 45% of the respondents “partially agree” and 35% “strongly agree”, that teaching and learning about sustainability has to be effectively implemented through extra-curricular activities initiated by faculties.

**Table no. 2. Which do you consider to be the most efficient / relevant methods of teaching and learning about sustainability? (agreement with the item, as % of the responses of the surveyed students)**

	<b>Strongly disagree</b>	<b>Partially disagree</b>	<b>Partially agree</b>	<b>Totally agree</b>
Including some aspects of environmental and social issues in academic subjects	11%	39%	29%	21%
Including specific modules related to social and environmental responsibility in the first years of study	16%	33%	29%	22%
Including some practical abilities in the content of existing subjects	5%	13%	48%	34%
Extra-curricular activities initiated by faculties, meant to develop pro-sustainability skills and attitudes	8%	12%	45%	35%
Supporting the initiatives of the students who want to develop pro-sustainability skills and attitudes	7%	11%	22%	60%

Moreover, the way of learning sustainability and developing social and environmental sustainability-oriented skills and behaviours has to be done by simply doing, as a “learning by doing” action, and by supporting student initiatives of this kind (i.e. 60% of the respondents “totally agree” and 22% of them “partially agree” with this item, see Table no. 2).

### Conclusions

Recent researches show that, despite of the remarkable progresses of the recent decades in teaching and learning sustainability in HEIs, students can join or explain with no trouble the objectives and principles of sustainability and responsible behaviour, but not as easily make the connection between the action of an individual or organization and its consequences for the environment and society. Therefore, the scholars and policy-makers alike inquire whether the effectiveness of the principles of sustainability in changing attitudes is limited.

The present paper aimed at investigating attitudes and behaviours concerning the education for sustainability, by surveying master students enrolled in two study programs in Business Administration at the public university in Oradea, Romania. Based on the responses, we found out that most students describe themselves as being interested in a career in the private sector, as entrepreneurs or employees, possibly in tourism. They have clear options, favourable to sustainability, reporting to both the university curricula, but also as consumers and future employees / entrepreneurs. In terms of education for sustainability, although they agree that sustainability-related issues have to be part of academic curricula and academic subjects, students do not agree with extra-subjects or extra-hours devoted to new theoretical chapters, courses or subjects, but rather they want practical activities, based on acquiring skills and useful knowledge on a “learning by doing” basis, on efficient management of resources and, to a lesser extent, of integrating elements of ethics, personal responsibility and attitudes regarding the social and environmental consequences of global development. Finally, students prefer to learn through extra-curricular activities, organized

within the faculty or the initiatives of students organizations, compared to the classical teaching/learning forms, i.e. additional subjects, courses, modules etc.

The revealed attitudes and preferences indicate a particular vision of younger generations, perhaps not always congruent with the academic vision on sustainability challenges in contemporary society and economy. Therefore, the research results enable us to conclude that the education for sustainability should not be limited to a “enriching” curriculum with additional references to the topic of sustainability, but to find specific and practical-oriented responses to the challenges of sustainable development, in terms of resources, motivations, contexts and practical actions to be conducted.

The main limitation of the study is related to the sample itself, which is limited to a single university and a single study field, and also to the fact that the research involves a single wave; consequently, a larger sample and several years of investigation would generate more reliable research results.

Nevertheless, the education for sustainability may become, even in an academic context, “hollow and insincere in the absence of practical and social action on site and perhaps beyond” (Buchanan and Griffin, 2010, p. 5). Universities need to adapt their current curricula to increase the emphasis on personal responsibility, of businesses and society, and businesses will have to deal more carefully in the future with the expectations and concerns of the consumers, requiring the government more effective measures in this area.

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## **CONSTRAINTS OF THE ROMANIAN BANKING SYSTEM DEVELOPMENT – AN INTERVIEW-BASED STUDY**

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### **Abstract**

In the process of transition from planned to market economy, the Romanian banking system has undergone a complex restructuring process from mono-bank system to the two-tier banking system. The large state banks were privatized and European banking groups have invested in Romania, especially after the European Union accession in 2007. However, currently, the Romanian banking system faces some challenges and constraints of development, amid the consequences of the global financial and economic crisis, and the limitations of the business models developed in the pre-crisis period. This article proposes a qualitative research, based on the interview method, on the development constraints and challenges of the Romanian banking system. The results emphasize among these constraints and challenges: low level of financial intermediation, amid a fragile economic environment, pressure of regulatory framework on credit activity, high level of credit cost, low level of domestic saving and high level of household indebtedness, diminishing of trust in the banking system, low level of financial education.

**Keywords:** Romanian banking system, financial system, constraints of development, interview-based study

**JEL Classification:** G21; G28; O11

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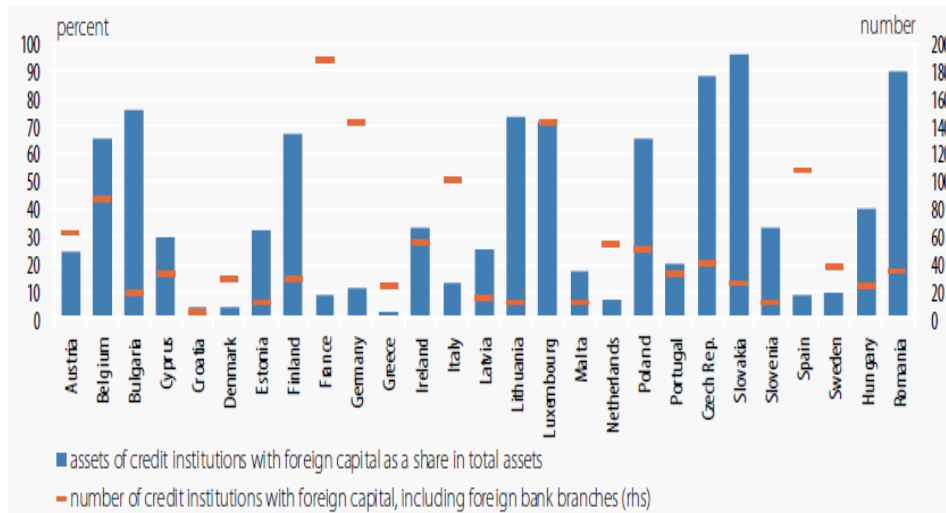
### **Introduction**

Since 1990, the Romanian banking system has been modernized and restructured. At present day, the banking sector dominates the financial intermediation and has a considerable contribution to financing the economy and population. The banking sector accounts for almost 80 percent of total assets (at end-2014). Investment funds, with 7.9 percent of total assets, and non-banking financial institutions (NBFI), with 5.9 percent, ranks the following positions in the structure of the Romanian financial system (National Bank of Romania [NBR], 2015, pp. 67-68).

In September 2016, there were 37 credit institutions in Romania, and 8 are foreign bank branches (NBR 2016, p. 57). According to the National Bank of Romania - NBR (2016) -,



the market share of foreign capital is high – 91%. Therefore, a feature of the Romanian banking system is the dominant market share held by credit institutions with majority foreign capital. From this point of view, Romania ranks second in the European Union (EU) behind Slovakia. Other countries in Central and Eastern Europe such as Bulgaria, Lithuania, Poland, and the Czech Republic are also positioned on upper places. The countries of the EU integrated into the union in the early stages of development - Austria, Denmark, France, Germany, Italy, Netherlands, Spain, and Sweden - are at the opposite pole (figure no. 1).



Note: 2014 data were available for EU Member States and June 2015 data were available for Romania.

**Figure no. 1: Market share and number of credit institutions with foreign capital (international comparison)**

Source: NBR, ECB (Structural Indicators for the EU Banking Sector) as cited in NBR (2015, p. 72)

The global financial and economic crisis has affected the Romanian economy, real GDP knowing significant changes from year to year. Compared with 2008, when Romania's economy advanced by 8.5 percent compared with previous year, in 2009 decreased by 7.1 percent. The decline continued in 2010. Since 2011 there has been a growing trend (in 2011, the economy advanced by 1.1 percent; in 2012, by 0.6 percent; in 2013, by 3.4 percent; in 2014, by 2.8 percent) (Eurostat, 2015).

According to NBR, growth in 2014 was driven mostly by private consumption. As a result, measures are needed to encourage investments and improve the business environment (Banca Națională a României [BNR] 2015, pp. 16-17). During the period 2004-2014, the average annual growth rate of the EU-28 was 0.9 percent. By reporting to this indicator, Romania is among the top three EU countries with the highest growth (average growth of 2.7 percent per annum), placing it just behind Poland and Slovakia, which recorded the highest rates growth in the EU (Eurostat, 2015a). However, given the indicator GDP per

capita in purchasing power standards (PPS), the value recorded for Romania was slightly more than half the EU-28 average in 2013, followed only by Bulgaria. All other EU countries recorded higher values, first being Luxembourg, where this indicator was over 2.5 times higher than the EU-28 average (Eurostat, 2015b).

Following the adverse consequences of the global economic and financial crisis, during the period 2012-2014, loans granted by banks to the private sector contracted. However, in June 2015, loans to the private sector exceeded the amount recorded at end-2014, marking reversing the declining tendency (BNR 2015, p. 84).

### **1. Review of the scientific literature**

The business models performed globally in the pre-crisis period, recent trends, challenges and constraints of the banking system have been widely debated in the specialty literature.

Farhi and Cintra (2009), Vives (2010), Vitols (2009) describe the characteristics of banking models in the pre-crisis period. Ayadi, Arbak and de Groen (2011) have analyzed the business models of European banks during 2006-2009, and they conclude that “investment banks” and “wholesale banks” were more affected by the crises than “retail banks”. After crisis triggering the regulation of shadow banking has become a topic of great interest (see for example Financial Stability Board [FSB], 2011).

European Central Bank [ECB] (2016) highlights the recent trends in the banking models of euro area. Roengpitya, Tarashev and Tsatsaronis (2014) find that in recent years the „retail-funded banks” gained in popularity (p. 64).

As the financial crisis affected trust in banking system, Hutt (2016) considers restoring trust in banks one of the most important challenges of humanity.

The evolution of the Romanian banking system under the impact of the global financial crisis is highlighted by the NBR publications. NBR (2013, p. 48) stresses the factors causing credit contraction in Romania after the global crisis triggering. NBR (2015, p. 83) finds out that monetary policy conducted by the central bank of Romania had an important role in resumption of credit that began in 2015. Regarding the foreign liabilities held by credit institutions in Romania, their share decreased from 30.7 percent in 2008 (BNR 2009, p. 23) to 16.6 percent in June 2015 (BNR 2015, p. 70). The problem of non-performing loans was also debated in the NBR publications. NBR (2014, p. 47) indicates that at end-2013 the non-performing loans ratio reached the level of 21.9 percent. Following the balance sheet clean-up process that has been started in 2014, in June 2015, the non-performing loan ratio dropped to 12.8 percent (BNR 2015, p. 88). Unlike other EU countries, shadow bank in Romania is not well represented – 15.5 percent of total financial assets (BNR 2015, p. 109). The same document (p. 107) states that a vulnerability of non bank financial institutions is the dependence on external funding.

The European Bank Coordination „Vienna” Initiative [EBCI] (2012, p. 1) outlines the importance of the Vienna Initiative in preventing the disorderly deleveraging process in emerging Europe. The study of Dumitru and Mircea (2011, pp. 74-76) indicates that the saving rate in Romania have experienced significant reduction after 1990, compared to the previous period, during communism. Isărescu (2015) states that moderate growth of credit and increase of local sources of funding are the trends that will characterize the Romanian banking system.

## 2. Research methodology

The interview-based survey was conducted between January and March 2017 with 18 professionals from the largest six banks and 4 representatives of academia. Banks were selected on the base of the net assets as at 31 December 2015, according to data provided by the central bank in the latest annual report (NBR 2015, p. 101). According to this document, at end-2015, the following banks held the largest market shares: (1) Banca Comercială Română - 15.8%; (2) BRD Groupe Soci t  G n rale – 13.0%; (3) Banca Transilvania – 12.6%; (4) Raiffeisen Bank – 8.4%; (5) UniCredit Bank - 8.1%; (6) CEC Bank - 7.3%.

We consider that the sample used is representative for the entire Romanian banking system, due to the fact that the total market share of the first six banks is high - approximately 62 percent.

The interview-based survey included seven questions that were related to: the level of financial intermediation in Romania; the constraints facing the Romanian banking system, namely constraints on regulation and constraints on bank loans; challenges for the Romanian banking system; trust in the Romanian banking system; financial education and shadow banking.

**Table no. 1: Interview guide**

	<i>Issue / Theme</i>	<i>Question</i>
1.	Financial intermediation	What are the factors causing the low level of financial intermediation in Romania compared with the European Union?
2.	Constraints on bank regulation	What are the main constraints related to the adoption of the new regulatory framework in terms of developing of your bank / the Romanian banking system?
3.	Constraints on bank loan	What are the main constraints / obstacles on bank credit growth in Romania?
4.	Challenges for the Romanian banking system	What are the main challenges facing your bank / the Romanian banking system currently?
5.	Trust in the Romanian banking system	Do you consider that the Romanian banking system was affected by trust decrease from the population part?
6.	Financial education	Do you appreciate that the low level of financial education among the public constitutes a constraint for the development of the Romanian banking system?
7.	Shadow banking	What are the main constraints regarding the development of shadow banking in Romania?

## 3. Results and discussion

*Financial intermediation.* Lack of viable projects for funding was underlined by several respondents as a major constraint on financial intermediation. To this respect, as example, a respondent from academia mentioned that the EU fund absorption rate in Romania is one of

the lowest in the EU, respectively 51.3 percent in July 2015 (according to NBR 2015, pp. 16 -17). Another factor limiting financial intermediation is the low level of domestic savings, explained by: low wages, level of households' indebtedness, lack of the education for saving. Besides, the external funding of Romanian subsidiaries received from parent banks has been diminished.

*Constraints on bank regulation.* The respondents stated that the implementation of the new post-crisis regulatory framework involves the balance sheet adjustment to meet the requirements of national legislation transposing the Basel III Accord. Ultimately, this process leads to the growth of the price of banking products and services. The adjustment of bank balance sheets caused by the new regulatory framework requirements may have the effect of giving up some less profitable activities related to regulatory costs that banks have to bear. An effect of the new regulatory framework with repercussions on the financing capacity of the banking subsidiaries in Romania is also the adjustment of the balance sheets of the parent banks. Another aspect underlined by respondents from banks refers to regulations adopted by the central bank to reduce credit risk, which led to the contraction of foreign currency-denominated credit.

*Constraints on bank loan.* The lack of a sustained, durable economic growth is considered by the most respondents as a major constraint on credit growth in Romania. Other reasons stated by respondents are: the problems of non-performing loans, lack of trust in the banking system accumulated in recent years, low income of a part of the population, the economic problems facing firms and eligibility conditions for finance accessing. The high level of loan cost was also mentioned by some respondents as an obstacle to the growth of bank lending. The respondents believe that implementation of tougher credit standards could lead to credit contraction.

*Challenges for the Romanian banking system.* The respondents from the banking system underlined as a major challenge the growth of profitability under the current fragile and unstable macroeconomic context and the new more restrictive regulatory framework. Some legal initiatives, such as the Law on the discharge of debt obligations, have been included among the challenges and constraints on increasing of profitability. The need to adopt new business models based more on domestic resources and less on external funding was also revealed as a major challenge. Other challenges raised by respondents are: solving the problem of non-performing loans and their efficiently solving, and increasing the efficiency and number of bank employees.

*Trust in the Romanian banking system.* The respondents believe that trust in the Romanian banking system has been affected due to problems with non-performing loans and foreign currency-denominated loans provided to unhedged borrowers. To increase trust in the banking system, the respondents consider that it is necessary to better communicate with customers, so that they understand the basic principles of banking, and cooperate to find efficient solutions for solving problems.

*Financial education.* In the opinion of many respondents, representatives of commercial banks, the lack of financial education in Romania is a constraint to the development of the banking system. Only an informed public can make informed investment choices,

understand the role of saving or portfolio diversification, the various risks posed by lending etc. Raising the financial education level is also in the benefit of the banking system and, ultimately, of the economy. As a result, unanimously, the respondents consider that the level of financial education in Romania should increase. Therefore, some financial education modules should be introduced into the school curriculum. Moreover, a respondent considers that financial education should begin since kindergarten. Some respondents appreciate that the design and implementation of a national strategy on financial literacy is necessary. To this regard it must be mentioned the efforts of the NRB and the Romanian Banking Association to increase the level of financial education. These results confirm a survey made by STANDARD & POOR'S (The S&P Global FinLit Survey) in 2014: Romania ranks last in the EU in terms of understanding financial concepts: only 22% of adults are financially "literate" (Klapper, L., Lusardi, A. and van Oudheusden, P. 2015, pp. 23-25).

*Shadow banking.* Similar to the traditional banking system, following constraints were also highlighted for the shadow banking: the high rate of non-performing loans, the limitations posed by the lack of viable business plans, reduced incomes of the population, highly leveraged etc. In addition, it was mentioned the competition from the part of the traditional banking sector. It was also stressed that in Romania, the legal framework for the development of some activities of shadow banking system, such as securitization, were adopted relatively late (only in 2006). Regarding non-bank financial institutions, some respondents mentioned as constraint the dependence on external funding.

### **Conclusions**

The Romanian banking system has undergone an ample restructuring process in the recent decades, which ranged from the mono-bank system abolition and the two-tier system creation until the EU integration, with the Romania's accession in 2007. Similar to the trends in many countries, in the pre-crisis period, the non-government credit increased in accelerated way, amid easing some regulations and banks' desire to benefit from the growth potential of the credit market in Romania.

In this context, currently, the Romanian banking system faces many challenges, among which very important are: improving profitability, solving the problem of non-performing loans, adapting business models to the new post-crisis conditions, marked by a more restrictive regulatory framework and the need to increase the domestic financing sources.

The fragile economic environment, the low financial intermediation, the diminishing of trust in the Romanian banking system, uncertainties relating to certain legislative initiatives, the high indebtedness of the population and the low level of financial education are among the main constraints for the development of the Romanian banking system in the European Union.

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## SUSTAINABLE STRATEGY OF IMPLEMENTING IPR MANAGEMENT IN MERGERS & ACQUISITIONS

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### **Abstract**

The research and development (R&D) field is going through a rapid development and change of strategy. The field is moving more and more away from the classical in-house R&D department which used to be responsible for developing all new products and technologies of a company to a more dispersed strategy. The in-house R&D is now more responsible for the core business of a company and the management has recognized that there is a constant need of finding new business fields and products which the in-house R&D normally cannot provide. Therefore, in the past years the importance of start-ups became more and more clear to most economical players. Established companies recognized the importance of investing in and implementing small external companies, not as a means of stopping the competition but as a means of finding those new products and business fields that a company needs to further grow and remain in the customer focus. This brought the department dealing with Mergers & Acquisitions (M&A) into a new focus point. When dealing with start-ups the potential investor has to be dynamic and fast about taking the right decision. For that he needs a team of experts that can perform in case of need, a swift and accurate Due-Diligence (DD) over the targeted start-up giving the management a reliable summary on which it can rely when taking investment decisions. Nevertheless, due to the high number of possible targets the DD team needs to work in a resource sustainable way.

The objective of this paper is to identify the right key questions, the right time stages and the right M&A phases for the implementing of the Intellectual Property Rights (IPR) management and more exactly the IPR expert in the M&A DD process. With the help of these, the IPR expert can decide on an economically and time sustainable IPR DD process for the discussed investment types.

The methodology used involves 6 different DD processes which were implemented in the course of 7 years in 2 different global corporations by the writers as well as a literature research of the best practices on the field. It is proposed to create a framework which guides and supports the path to a resource sustainable strategy of implementing the IPR DD.

**Keywords:** Mergers & acquisitions, Intellectual Property Rights, Due Diligence, Sustainable Strategy



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**JEL Classification: A10, A11, D21, M12**

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### **Introduction**

The start-up industry is developing and growing at a very high rate. Many of these start-ups are what is called the “knowledge-heavy industry, where the utilization of intellectual property is often the core business”. (Popp, 2017). So that when looking to invest in such companies it is especially important to invest resources into the IPR DD. There are many reasons for a thorough and well managed due diligence process. In the fast moving market, it is important to exactly know what is acquired and since many of the start-ups are evaluated at very high sums but still don't have a lot of business implementation, the importance of the technical team examining the developed products and of the IPR management in the DD process has grown exponentially. Furthermore, it is important for the buyer to make sure that he is buying a company which is in full control of the IPR that it is using, so that it will not fall in to the risk of buying an empty “egg shell”. A further and very important reason for a good and thorough IPR DD is the possibility that the target has been infringing knowingly or unknowingly IPR owned by third party. In many cases the third party will not sue the small company with the knowledge that it has low funding and possibility of fulfilling any compensation payments decided by a court. Therefore, it will often happen that the third party IPR owner will wait for a stronger investor to come and purchase the infringing company. A good example for such a case was RPost vs. Adobe - “Barely hours after Adobe's acquisition of web-based provider of electronic signature and signature automation, EchoSign, the companies have been hit by a lawsuit filed by US-based rival RPost alleging infringement of 5 of its patents.” (MacInnes, 2011). In this paper we are focusing on the development of an IPR DD frame which seeks to help the IPR expert to conduct an IPR DD which is as resources saving as possible but will still provide the answers to the investor's needs with a special focus on start-up investment or acquisition. Strategies for IPR DD begin with the preparation strategies of the companies that want to find investors for further growing (Storella, 2012) continue into fully developed DD strategies going through every point of the DD (Berens, et al., 2013) and continuing with IP DD checklists which can have very detailed questions and steps considered needed in the IP DD (Due diligence data room , 2017).

## **1. Current approaches and literature provide the right tools**

### **1.1 The right questions**

A properly conducted DD can benefit both seller and buyer and may lead to long-term relationships and business synergies. (Cockburn, 2017).

According to Mr. Cockburn the IPR DD expert should ask at least the following questions and answer them before he can give a good assessment of the risks that are connected to the expected acquisition. The IPR expert should know and understand:

- what the management expects to get out of the transaction.
- what is being bought or sold and the exact obligations to the buyer or seller.
- a full search on the ownership, history and maintenance fees of the IPR, to ensure that rights are still in force and confirm validity of the information presented.
- from the seller of the IPR right details of other IP rights, which may affect or restrict the usage of the IP right in question.

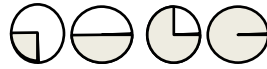
- check out copyright implications
- ascertain if there is any mortgage on the IPR.
- for patents request details of any improvement patents that might exist.
- ascertain whether the IPR is the subject of any litigation or infringement suits.
- significant timelines involved with the IPR such as the duration of the license.
- request details on significant third parties and
- always, always ensure that the seller is entitled to sell the IPR.

This points can be developed to a check point list of questions which the IPR expert goes through and tries to supply an answer to (Due diligence data room , 2017).

### **1.2 The right phases**

To conduct a sustainable IPR DD the expert should understand the nature of the M&A process thoroughly. He should have a good oversight on where exactly the process is standing and where in it he takes his place at the given moment. This is the first dimension of thinking before starting to invest too many resources into the IPR DD process. The M&A process can slightly differ from acquisition to acquisition but in general goes through the following phases (Appelbaum et al, 2000).

- Pre-Acquisition is a phase where in most cases the team and M&A department are not informed yet. This is a phase which is mostly kept confidential and is being discussed mostly only between the management which will eventually decide if and when to start an M&A process for a certain target.
- Phase 1: The screening, preselection and initial contact. In this phase the first teams for the Due Diligence are formed and are approved to already get in contact with the target. Here the management should define the target and the expected business requirements. The teams take over and have a first initial contact with the target, testing some of the basic requirements for continuing the process. An IPR expert should join this team from the beginning to test if the target has any imminent IPR difficulties. In this phase the IPR expert can only test the obvious information about the target. If none of the experts found a major risk, deal breaker or irregularity the M&A process could continue. The management will decide dependently to continue to the next phase.
- Phase 2: Due Diligence & Evaluation. In this phase a full due diligence team is built with experts answering for every field that needs to be evaluated in case of acquisition. Possible fields are: legal, IT, market potential analysis, HR, technical, operations, financial, tax, intellectual property and others. It is the job of the experts to define the level of risk for each of their fields. Each field defines the different risks that might come up and through testing and researching the target company documentations as well any other source of information a level of risk is evaluated. For each of the identified risks a level is chosen depending on the information: low, medium, high or very high risk. The critical very high risks must be highlighted and could if not mitigated be a deal breaker. The average of these can be summarized in one value and if wanted represented by a graphical value:



IPR Risk Level

**Figure no. 1: Possible risk levels per example the IPR**

The IPR expert can also assist with the evaluation of the final price of the target. Using tools like patent value evaluation and analysis tools like Patentsight (\*\*Patentsight, 2017) and Iplytics (\*\*IPLYTICS, 2017) he can estimate the value and strength of the IPR portfolio of the target.

- Phase 3: Signing and Closing. When reaching this phase, the DD team has already presented the results of the DD to the management team which in dependency to the results decided to continue with the acquisition. The IPR expert is responsible to make sure that the final version of the contract includes the correct IP clauses and the IP guarantees provided by the seller are correctly described. It is important to clarify what exactly happens with the IPR and what happens in case something goes wrong over a definite period of time.
- Post-Acquisition: The IPR expert is now responsible for the new subsidiary. Depending on the managerial strategical decision it will be decided if the IPR continues to remain as part of the assets of the subsidiary or if it is more important to transfer these into the portfolio of the parent company. Furthermore, it is now in the responsibility of the IPR expert to check if the information received until now from the seller during DD was correct. In this step the IPR expert will take over the management of the IPR portfolio and new IPR application of the new subsidiary.

### 1.3 The right stage

The second dimension is best described in a publication called Demystifying IP Due Diligence (Bosch and Burgy, 2006) the writers go to the next step and divide the IP DD in a “Three-stage Approach” each with its own questions and points. These stages seek to provide a frame which allow the IP expert to implement a sustainable strategy in the processing of the research and information of the due diligence. This means that by asking the questions in the right stage the IPR expert can decide what time and resource investment would be sustainable for each step of the M&A DD as well as in case of an acquisition to decide what would be the most sustainable and business oriented strategy to implement the acquired IPR in the corporation. “The three stage approach defines the many goals of IP DD into three components for focused analysis”:

- (1) Prioritization of the objectives: The typical information needed at this step is to know what are the business requirements of the management, what is the purpose of the acquisition and what are the expectations on the business field as well as on the IPR field. Accompanied by a definition of the target business and industry the IPR expert can define by this information the boundaries of the due diligence on this stage. This way he will only invest as much resources as needed at the given stage.
- (2) The substantive investigation: The typical information needed at this step is about the products and services involved and after an exact definition of those, finding out if there is existing IP owned by the seller or a third party covering these products and/or services. Depending on which phase of the M&A DD it is, the IPR expert can use tools like freedom to operate researches and prioritizing.

- (3) Analysis of the results: the final stage is the synthesizing of the results the risks that may have been uncovered need to be scaled and deal breakers have to be clearly pointed at.

## **2. Combination of the existing approaches**

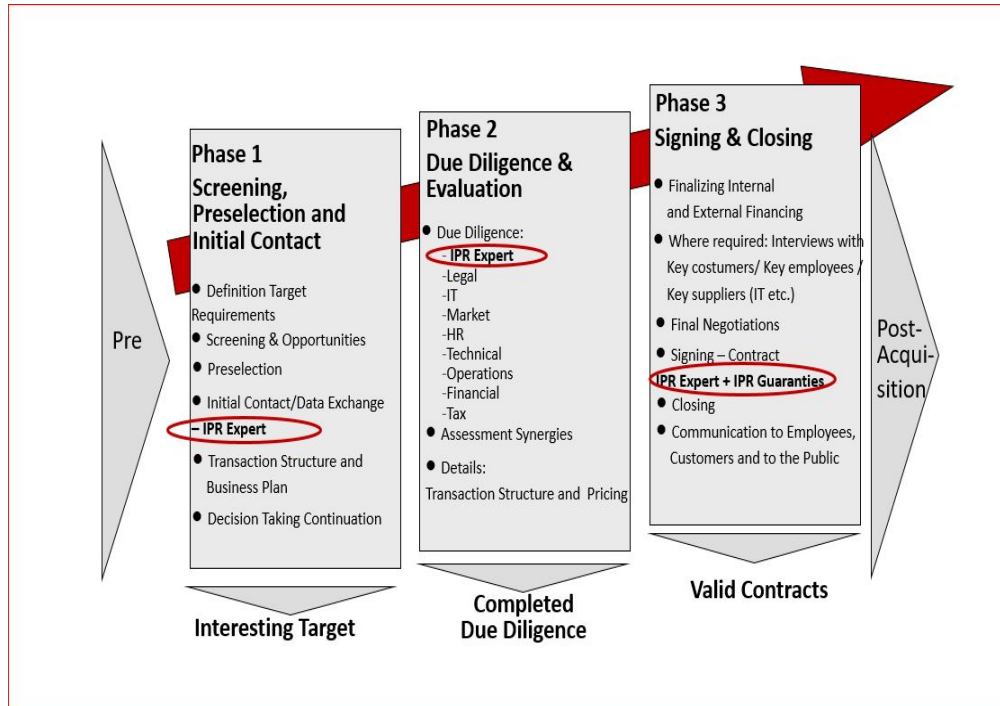
In the research that we conducted in the 6 different DD processes that we had available it came out that each of the approaches delivers a reasonable amount of information when seen from the DD point of view and that they actually manage to respond to a big part of the requirements expected from an IPR DD, but we encountered a main difficulty of scaling the amount of resources which are invested in each of the single IPR DD's.

This meaning, that if the IPR expert will only use a checklist to go through each point and insist on fulfilling all the points on the check list for every DD he will spend sometimes to many resources.

For example, he will do a full FTO research and analysis of the results with average costs of over 100000\$ for a target which is evaluated at 50 million dollars as well as for a target evaluated at 0.5 million dollars.

This would improve when using the "Three-stage Approach" but because he will only look at the DD process as one phase he might invest too much too soon and it may have happened that a deal breaker already appeared from another spot in the first phase of the DD.

**2.1** Therefore, as we already hinted in the description of the different tools we came to the conclusion that a combination of the tools above would be the best alternative for the kind of IPR DD described in this article. In a first step we combined the M&A typical phases with the targets and position that the IPR expert will take. By doing that we are giving the IPR expert an overview of where he is positioned in the M&A DD workflow and what are his responsibilities in each of the phases. The following graphical work flow of the M&A displays this in an easy comprehensible manner.

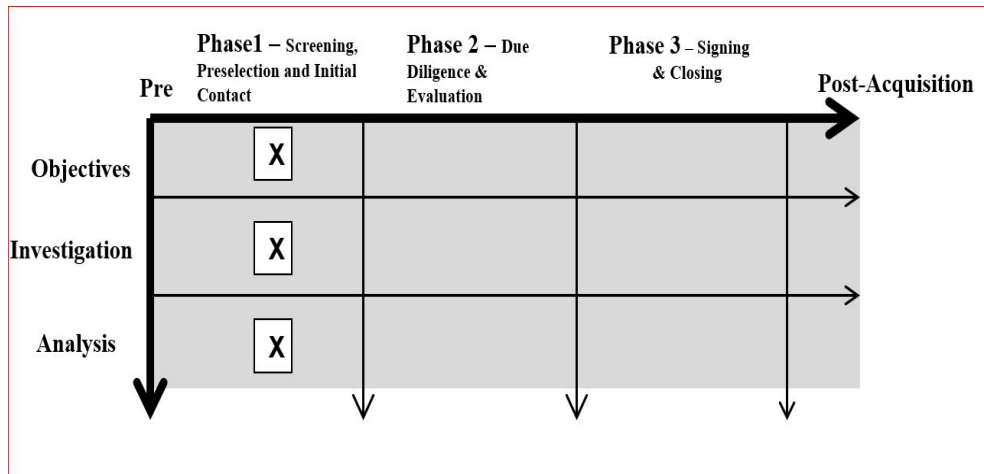


**Figure no. 2: M&A workflow the acquisition part and IPR expert positioning**

Source: (Appelbaum et al, 2000) and research conducted by the authors in 6 different DD cases

Seeing this we have actually noticed that the IPR DD is conducted in a two dimensional time and workflow with the M&A process being the first dimension

2.2 The second dimension of the IPR DD defines the many goals of the IP due diligence itself. In the second dimension we implemented the three stages that should be worked through each of the phases of the acquisition phases described in the upper part. (Bosch and Burgy, 2006)



**Figure no. 3: IPR Due Diligence workflow**

Source: (Bosch and Burgy, 2006) and research conducted by the authors in 6 different DD cases.

With this we created a fully new frame for the IPR expert to approach an IPR DD which is sequenced and which allows him to scale the investment into the DD depending on what phase and step he finds himself in and offers the possibility to stop the DD at clear defined points.

**3.0** After the combination of the two dimensions we have added the check list and combined it into the stages and phases approach. Now the IPR expert has the tools to go DD phase after DD phase and during these phases over the 3 stages each with dedicated lists of questions and to-do's. He can now exactly decide how far does he needs to go on with the DD to supply the exact information needed for that exact phase and noting more. This way he will only invest the for that phase and stage needed resources and manage an economically sustainable IPR DD differentiating from case to case in a structured easy controllable manner. He can report to the management at any given point, offering new possibilities of controlling the IPR DD and extracting useful information already during the process.

**Results**

We in the 6 different DD cases we have used each of the tools separately and finally when in the last ones we had the developed approach described in this article. We implemented this new combined IPR DD approach and the results were very positive.

DD Case	Company assessed value	Tools used	Results	Investment in DD IPR
Startup on IT field	12 Million US Dollar	IP Due Diligence Checklist	Buy -The results of the IPR DD where positive but the investments grew to very high sums	~250.000 US Dollar
Startup on IT field	3.5 Million US Dollar	IP Due Diligence Checklist	Deal-Breaker - The results of the IPR DD where positive but the investments grew to very high sums	~75.000 US Dollar
Startup on IT field	50 Million US Dollar	IP Due Diligence Checklist	Deal-Breaker - In early stage discovered but due to the approach already too many resources invested	~30.000 US Dollar
Startup on IT field	5 Million US Dollar	Three-stage Approach	Buy – an improvement of the DD costs but still very high	~30.000 US Dollar
Startup on IT field	15 Million US Dollar	Three-stage Approach	Buy – an improvement of the DD costs but still very high	~30.000 US Dollar
Startup on IT field	5 Million US Dollar	Combination	Deal-Breaker – a clear improvement of the process. We invested only a small amount of resources before the deal-breaker came in.	~5.000 US Dollar

### Conclusions

Through the graduate implementation of the different tools into the final one and the testing that took place at each step we could observe a steady improvement of the results achieved during the DD IPR processes. The quality of the results and with them the information supplied by the IPR expert to the management grew and the amount of time and money invested to reach these results was diminished to a level allowing the management to freely rely on the IPR DD without the fear of investing too many resources when it is implemented into the due diligence team. We have also noticed that there is a further factor which influences the amount of resources used in the IPR process: the risk mitigation. The risk mitigation can be seen as a kind of insurance for the decision takers e.g. the manager that needs to decide if an investment can be done or not and is a further factor that can swallow a big amount of resources. Here we are continuing our research and with the target of establishing what level of risk mitigation is acceptable depending on the amount of resources that need to be invested to reach that level of security. This taking to mind that in IP legal matters it is very hard to reach a 100% mitigation of the risks because of the high amount of information that needs to be processed as well as the high complexity of that information.

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## **SUSTAINABILITY AS FOUNDATION FOR PRACTICAL APPLICATION. CONSIDERATIONS FROM AND FOR INFORMATION TECHNOLOGY SECTOR**

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### **Abstract**

The thoughts about the term sustainability as tool for attracting shareholders, customers and partners create a wide and deep range of application areas. Despite all efforts to reduce the used resources and money, the sector of information technology grows. The objective of the paper is to identify the elements that form the foundation of sustainability in the IT domain. Methodology used involves a case study on the example of one typical IT business.

The results shows that measurement and monitoring on technical and managerial levels can lead to best practice in replacement of hardware in datacentres and maximizing the utility of resources, considering all determining aspects. By using a big datacentre as reference, the several categories of steerable parameters considering sustainability lay out the complex challenges in a company. The authors also show that datacentres as source and engine for data and information processing face several aspects of sustainability. All of them can be handled separately, but interferences and dependability will reduce the effects. Finally, the study indicates that observation, measurement and monitoring on technical and managerial levels can lead to best practice in replacement of hardware in a datacenter and maximizing the utility of resources, considering all determining aspects.

### **Keywords**

Sustainability, interest conflicts, technology, interest dissent, replacement factors

### **JEL Classification**

M10

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### **Introduction**

The digitization of business is one of the current concerns and determines at the same time new opportunities for learn new successful business models (Weille, 2015; Tornjanski et al., 2015). Sustainable management can be regarded as the intentional activity regarding

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and accepting the main principles of Corporate Citizenship (CC), Corporate Sustainability (CS) and Corporate Social Responsibility (CSR), (Schaltegger, 2001). All in common is to leave the focussed business strategic and operative decisions to favour societal and environmental concerns and expectations. Combining diffuse interests of shareholders and stakeholders, which have their individual expectations to the organization, with abstract needs of society and economy is the most challenging part, focussing to sustainable development. Millon mentioned that the interests of shareholders and non-shareholders are not unavoidable in conflict to each other (Millon, 2011). The following article enlightens on operational level the complex structures within an organization, using only one fragment of information technology. Replacement of basic services contents itself several layer influencing responsible decisions. By using exemplary data from a mid-size data centre shows the influence factors. To draw a holistic picture or at least a line as orientation for decision-maker the preparation has to cope with numerous adjustments screws.

### **Methodology**

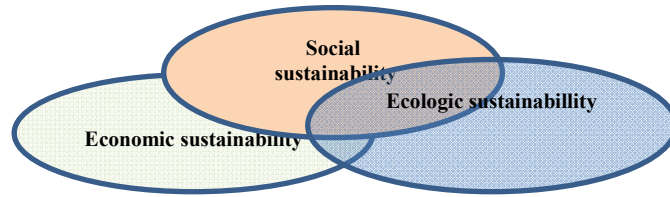
The following case study will display and discuss the several influence factors for a decision-maker. Age, performance indicators, contracts, used resources and recycling options dominate the decision, beneath economic thoughts. The articles enlightens the information-technology (IT)-infrastructure in general, in particular the replacement of servers. Showing the dependency of the aspects creates a complex decision matrix for date and kind of replacement. Secondary, the exemplary age structure of the complete infrastructure urges decisions continuously. Used data are provisioned by the datacentre and are representative as benchmarks worked out. This case study leaves the abstract rhetoric discussion about sustainability and shows challenges by transmission in operations.

### **Theoretical aspects**

#### **1. Different fields of sustainability**

According to some authors, sustainability is defined as development that meets the needs in the present without compromising the ability of future generations to meet their own needs. (Verjel A.M. et al., 2015). The sustainable development should be considered as an integrated system of economic, ecological, social and institutional perspective according with Ciegis et al. (2009).

Regularly sustainability contents of the three sectors of social sustainability, ecological sustainability, and economical sustainability. All of the three are combined by the intention to “a form development that meets the needs of the present without compromising the ability of future generations to meet their own needs”, as Hauff pointed out already in 1987 (p.46). Some of the several possible dimensions and their measurable parameters can create an intersection, as to see in Fig. no. 1, between a) ecologic sustainability (dimension: planet, region); b) economic sustainability (dimension: profit, market shares); social sustainability (dimension: people, welfare).



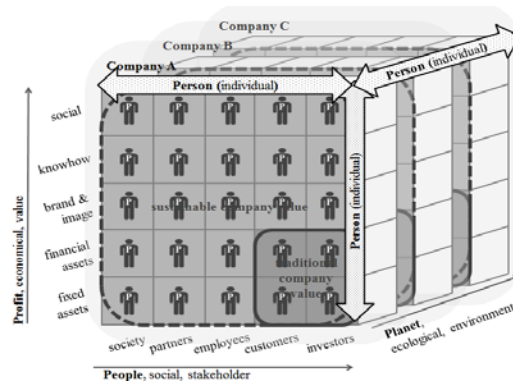
**Figure no. 1: Components of sustainability (3-P-Model of CSR)**  
 Source: authors, Hauff (1987)

Carroll (2003) suggested four fields for corporate responsibility, the responsibility a corporation or organization has to keep in focus: a) economic; b) legal; c) ethical; d) philanthropic areas.

The first three ones are necessary to produce the charitable or philanthropic area; measurement of the first two is comparatively easy; the latter ones are hard to measure, especially a reference number or a set of numbers. Measurement will be accompanied by valid statistics for evaluation and judgements taken by government, private corporations, or associations.

Gabler Lexikon (2006) defined the four columns of sustainability as follows:

- Regenerative resources are to use in the same scale as they are reproduced
- Non-regenerative resources should be used in the extent as they are substituted by other resources, comparable in function and consistency
- The net extract from ecosystem has to be zero; no more resources have to be taken than are reproduced by the nature.
- Nature has to cope all changes initiated by mankind.



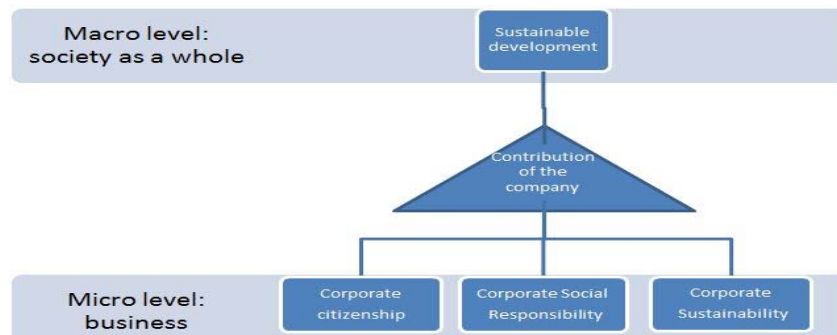
**Figure no. 2: The “4-P” Model of ISR for an organisation**  
 Source: Weber, 2017

Weber (2017) supplements the aforementioned 3-P Model of CSR to the 4-P-Model of ISR (ecoistics) by adding the dimension of “person” = “individual”, as individuals per se are an integral element in the sustainability discussion. Any organization consists of individuals with demands and wishes, which at the end are the ones representing and living a CSR strategy and therewith the sustainability strategy of the national economy.

The most challenging remains the question of weighing of interests, based on a specialized scale. In the case of overruling prioritization of shareholder interests, based on short term results, non-shareholder-interests will be mitigated. More complex will be the forecasts of decisions or activities concerning local or regional societal status (Bodemann & Olaru, 2014). Thereby definitions and discussion lead unavoidably to the term of public value or welfare. In 1995 Moore introduced public value as term to describe holistic generally accepted values in society which can be changed by each player in a society.

**2. Forecasts of activities from a business and a public view**

Generally a company focussed to maximizing profit in favour to increase the shareholder value and secure the durability. By adjusting the report periods from long to short results are judged in shorter periods, long-lasting product or service cycles were replaced by decrease of renovation cycles and broader widespan of products. The automotive industry is a good example for the changed focus: The former product range was extended during the last 20 years, the intervals of renewals of types are reduced, but in several examples at the cost of quality and durability. The wingspan and depth of the product spectrum reveal the market shares and fulfilled the more and more individualised interests of customers. Different levels concerning sustainable development can be applied in every organization. The following figure shows their transition between micro- and macro views of the ramifications an organization produces.



**Figure no. 3: The relationship between CSR, CC and sustainable corporate governance and sustainable development**

*Source: Loew, T., Ankele, K., Braun, S., Clausen, K., 2004*

**3. Complex structures of products, their origin and their impact for corporations and the affected environment**

Regarding the roots and intention of CSR and the perspective to combine the concepts of sustainable development started from a business view (Loew at al., 2004). Durability and pay-offs for share- and stakeholders are regarded as priority. The social matters became secondary. The following findings about products and service tend to focus the continuous provision, secondary the implications to society and environment. Loew at al. (2004) or Millon (2011) complain about the combination of an obsessed and exclusively profit oriented community with quarterly expectations. He also admits that policies that are

designed to serve the non-shareholder constituency are assumed to work adversely to shareholder's expectations and interests, expressed by reduced short term profits. As consequence, shareholders will express their interests more fiercely. Especially investors will look at the business behaviour and the short-term pay-off expectations. Prioritizing that kind of entrepreneurship will contradict the idea of corporate social responsibility. Core idea of a product is the assumed and later realised value of a product. Determining factor is the value of the product, resulting from a personal or technical cost-benefit-analysis.

Every modern enterprise is equipped with own or rented IT-infrastructure. From remote robots to workflows preparing a strategic board decision, virtually every step is rebuilt by flow of electrons. The transformation process contains big data, virtualization or cloud technologies. Small computers support the steering and handling of a car, bigger datacentres provide several applications for managing and monitoring of processes, administration and production processes. Modern datacentres architectures allow to steer, to control, and to adjust several processes, identifying troubles and allowing better forecast, for example for just in time orders and provide a planning tool for availability of necessary resources. High performance computers are able to learn languages, analyse letters of complaints or diagnose the source of diseases by comparing several parameter of a patient's data and history (IBM.com/Watson).

Cheap servers, as one example from IT, can be some kind of effective and efficient than more expensive ones. Some vendors claim that they can guarantee a steady performance of a server over the pre-planned lifespan; others claim that they are more compatible with operations systems or applications. All of them is in common that by ordering an already existing server the used technology and material are overtaken by others, also the performance is expected to double in two years, regarding Moore's law.

#### **Practical approaches**

#### **4. Depth and width of screws for sustainability for IT-infrastructure**

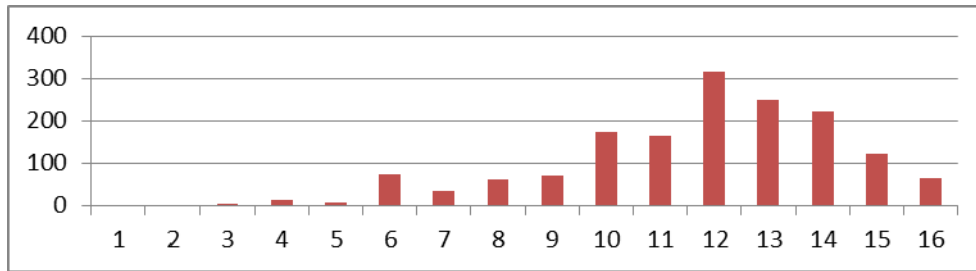
Physical deployment and removal of servers, which are the working horses in an IT-environment, enlightens the difficult situation a decision-maker has to cope with. In the following example conventional servers are in focus. Leaving the abstract model about action and reaction to the several layers of the environment, replacing a server shows the complex structure of consequences.

#### **5. Technologic sustainability**

We will introduce in the sector of physical IT, in contrast to virtual IT, other fields of information for decisions to be considered for more differentiation in a decision situation when and by what a server or equivalent has to be replaced. For better planning and to create a steady line of provided hardware and/or virtual machines, the regular estimated time in service of servers is 4-6 years. During that time the vendor guarantees to take care for a compatibility of operation systems, several parts of the server, for example controllers, switches, network cartridges and the compatibility to other interfaces, on physical or logical level. Programming languages are subject for a steady evolution. Recoverability of data of contained data has to be guaranteed and changes to be identified.

Fig. no. 4 shows the deployment year (20XX) and the inherent number of servers. Regularly maintenance-contracts last 5 years; some of the servers are replaced earlier, some are removed planned or unplanned. Big datacentres have to consider the compatibility of

servers if they are changing the vendor, running an application on different hardware platforms can inflict some serious failures.



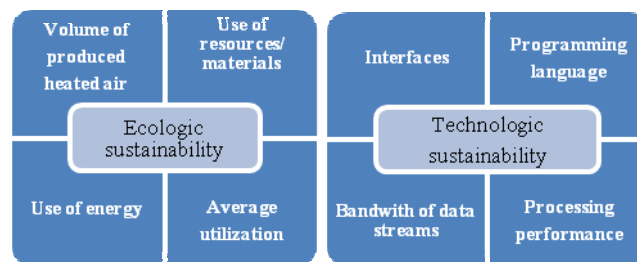
**Figure no. 4: Example of age structure of servers**

*Source: Based on the data centre of the state of North-Rhine-Westphalia, Germany*

Another aspect is to weighing up the production or provision process and the extension and kind of applied resources. Technology progress is almost ever accompanied with reduction of labour force, transferred to automatically executed processes. One result was during the industrial age the drove of unemployed farmhands from the rural regions to major cities, to get jobs that did not exist (Ford, 2015). For IT a dynamic field of action is a consequence.

**6. Ecologic sustainability**

Although a current main effort is develop and produce engines with less power consumption combined with better output, the standard operations of data centres have direct influence to the near environment. Cooling fans, reducing the humidity, empowering the processors etc. need energy and produce industrial waste heat. In the specification of each server the manufacturer determined the number of revolutions and the combined air flows at a certain status. Further rare resources are used to produce the components. For a sustainable development in the sense of protecting the environment the exploitation of the earth, especially the production of rare resources has to be considered in a situation to replace a server. Calculating the best combination of applications running on a server is a very complex process. While monitoring the CPU over a period of time, spikes or peaks will occur. Further the balance between maximum workload and maximum lifespan with a certain performance is hard to forecast.



**Figure no. 5: Technologic and ecologic sustainability and their facets**

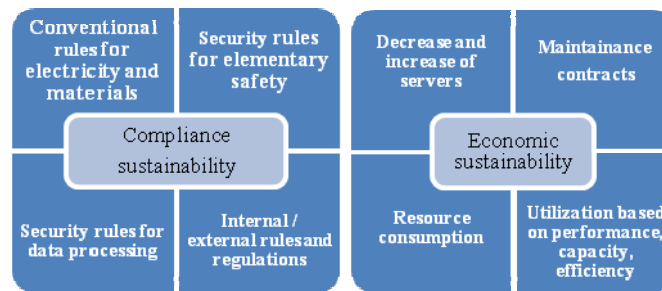
*Source: authors*

**7. Compliance sustainability**

For the IT-business, several compliance regulation have to be fulfilled and maintained during a internal or external contract. Safety regulations, data protection, audit-proof storage and processing are amplified by individual or general Service Level Agreements (SLA). Internal or external customers are guaranteed specific performance services and have to be provided during a certain period. Not complying services are subject of fines or cancelling the contract. The external legal framework is therefore extended by internal rules and regulations. For a decision, how to deal with the question of optimizing the live-span, statistics about fails or broken server, their specifications or their place and function in an digital network, have to be considered.

**8. Economic sustainability**

Speed and focus to new trends dominate the IT-Sector. New technologies like cloud-computing, big data-analysis, and virtualization are only a few to name. To follow each trend a company has to invest in knowledge and physical assets. But the value of these assets will be reached after a certain period of time. Regularly support contracts are make for five years. Within these periods the functionality, performance indicators, and compatibility with other vendors on physical and logical level are guaranteed. But the economic challenge is to process of essential data to determine the perfect replace period or date. Further to identify all technologies and hard- and software that fits best in the requirements in the company. By analytics tools the average utilization can be measured by several parameters. The more data from the past, the more precise forecast will be presented in the case of a management decision.



**Figure no. 6: Compliance and economic sustainability and their facets**

*Source: authors*

**Conclusion**

On an abstract level the aggregation of actions and their consequences for the corporation, the direct social and ecological environment, for society and public value, sustainability is an impressive challenge. As to see in the case study on operative level a model of parameter let emerge several layer. All of them can and will influence the grade of applied sustainability thoughts. The chosen example of decision to replace a server enlightens the complex indicators for the decision. Company’s short-term goals and shareholder’s interests can be given more weight to set priorities; economic indicators can be set a main focus. But the interdependencies between the four sustainable fields, technologic, ecologic,

economic, and compliance shows the challenge for data processing and presenting in a decision-situation. But the IT-department is in most cases only a supplier for services. Analysing the production processes, the research- and development departments and their direct influence to strategic decision opens a wider and deeper range of aspects to be considered in a decision situation. The given data allows only a limited view. Holistic analyses of the fields of sustainability can support better decisions; balancing of shareholder and stakeholder interests and their priority in the strategic planning amplifies the management tasks.

Sustainability and the different streams will influence the future generations, preparing a stringent and balancing strategy is the most challenging tasks for managers, especially because results are not visible with the quarterly reporting periods.

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## RESEARCH ON THE MODULARIZATION STRATEGY AS A KEY FACTOR FOR THE SUSTAINABILITY IN A GLOBAL COMPANY

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### Abstract

The modularization strategy is widely spread in a variety of industries and might play an important role in the future. The increasing importance will therefore also have impact on the automotive industry (Wildemann, 2014b).

The reason for these processes is a conflict of objectives which is highly relevant for the automotive industry. Customer and market demands such as individualization stand up against standardization which companies are particularly aiming for (Wildemann, 2012, 2014a).

The objective of this paper is the identification of the modularization strategy as a relevant factor for the sustainable organization of global companies. In addition to a broad process of investigating literature, 50 interviews with managers and professional buyers of a global company are taken into consideration in order to ensure the sustainable relevance.

As a result, the positive influence of the modularization strategy on the sustainability of global companies will be evaluated. The authors therefore underline the statement of Horst Wildemann of 2014 regarding the advantages of the modularization strategy. Additionally the interviews underline that without the modularization strategy the handling of the complexity and volatility of current business processes appears to be impossible. The applied research consequently provides with additional input and results for business analysts.

**Keywords:** modularization, module, advantages and disadvantages of modularization, sustainability in companies

**JEL Classification:** M20, M21

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### Introduction

The strategy modularization is widely spread in a variety of branches and industries and might play an important role in the future. The increasing importance will therefore also have impact on the automotive industry (Wildemann, 2014b).

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The reason for these processes is a conflict of objectives which is highly relevant for the automotive industry. Customer and market demands such as individualization stand up against standardization which companies are particularly aiming for (Wildemann, 2012, 2014a).

Individualization in this context is defined as the production of a vehicle, based on a variety of unique, individually manufactured components (Herlyn, 2012). In contrast, standardization is defined as the manufacturing of a vehicle with standardized components and modules (Herlyn, 2012, S. 208; F.A. Brockhaus, 2012; tqm.com, 2012).

Individualization should be pursued due to the fact that a variety of technical specifications of the manufacturer need to fit the demand of the market. For example the individual request of unique customers regarding the design and equipment of the vehicle plays a crucial role in this context (Baum and Hüttenrauch, 2008; Starr, 1965). These specific requests are given rise by the competition, the media and trends in social media. A survey which took place in 2014 indicates that 93% of the users actively participate in Facebook during their free time (Faktenkontor, 2014). Based on this assumption a future surge in the utilization of social media is expected which is underlined by a prediction of eMarketer (eMarketer, 2014). The survey indicates that the number of users of social media platforms will globally increase by 0.5 Billion during the next three years. Using social media platforms enables consumers, in addition to other media sources (Guinipero, et al, 2010), to acquire exclusive information on purchasing vehicles which meet their individual preferences. The trend therefore reflects the current and future increasing challenge for vehicle manufacturers (Baum and Hüttenrauch, 2008; Stang, Hesse und Warnecke, 2002). Besides, the increasing transparency and additional sources for customers, different markets represent different specifications and requirements. (Wildemann, 2014a; Starr, 1965). For example there is a specification regarding the reduction of CO<sub>2</sub> emission (European Parliament and Council, 2009; Hab and Wagner, 2012; Die Story im Ersten: Das Märchen von der Elektro-Mobilität, 2015; Deutsche Presse Agentur, 2015), certain regulations referring to the length and amplitude (§32 Abs.1 StVZO) or requirements regarding a scalable airbag systems and high-tech developments (Geissler, 2008).

In contrast to the individualization, standardization will enable economies of scale thus decreases the average costs per vehicle (Glück, 2011; Stang, Hesse and Warnecke, 2002; Starr, 1965). These developments will ensure companies a higher profit in the long-term. Additionally an increase in the return on sale (RoS), the ratio of profit and revenue (Döring and Wöhe, 2010), and the production output can be achieved. The reason is the increased time-efficiency which derives from the production with similar modules and components. Furthermore relationships might enable professional buyers to achieve lower prices by purchasing a larger quantity of products. These savings will lead to a decrease in the sales price for the end-consumer (Waltl and Wildemann, 2014). Moreover the utilization of common platforms ensures the availability of a variety of vehicles and the individual components which are required (Waltl and Wildemann, 2014). As a consequence companies are able to enlarge their customer base. Another aspect which should not be neglected is the positive impact on the brand image.

Therefore the conflict between individualization and standardization plays an important role in modern business. In line with the conflict a survey has been initiated over the course of five month.

**1. Theoretical aspects**

*Definitions*

A module describes a sub-system, whose functionalities are restricted by the manufacturing process. The objective of the system is, to be designed, certified and constructed individual from the overall system (Feldhusen and Gebhardt, 2008; Walzl and Wildemann, 2014).

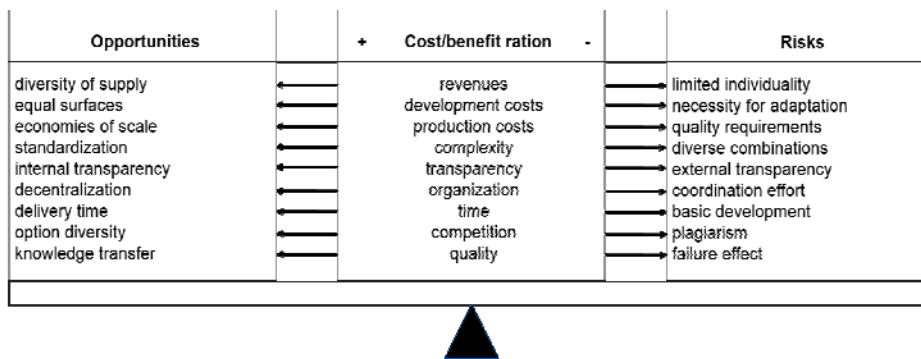
*Modularization* is a method for structuring products based on defined aspects. Modularization ensures the independence of the individual elements by diminishing their interdependence and decreases the amount of interfaces (Koller, 1998; Göpfert, 2009; Canales Salacerry, 2006). The method can be compared to the construction of a Lego vehicle. The method indicates that the construction process requires a certain amount of components (Starr, 1965).

Therefore, the strategy is defined as the *Modularization strategy*.

*Challenges, borders and potential of the Modularization strategy*

Having defined modules, modularization and the modularization strategy, the challenges, borders and the potential of the modularization strategy can be evaluated. These are significantly complex and depend on a variety of factors (Wildemann, 2014b). In order to distinguish and evaluate the individual potentials and risks, a analysis will be described during the next paragraph, followed by the borders and challenges.

Comparing the individual advantages and disadvantages (Figure no. 1) consequently reveals that it is impossible to formulate general statements regarding the utility of the implementation of the modularization strategy in companies. Therefore, there is no definite cost/benefit ratio. Referring to Wildemann (2014) it can only be stated that strategic management is a key requirement for the success of modularization (Wildemann, 2014b).



**Figure no. 1: Risk/Opportunity analysis of the modularization strategy**

Source: Wildemann, *Modularisierung in Organisation, Produkten, Produktion und Service*, 2014b, p.56

**2. Methodology**

Based on the statements of Wildemann (2014b) the utility of the modularization strategy will be evaluated. For this practical research 50 interviews have taken place. 25 of the participants have been experts on the field of the modularization strategy and 25 have been professional buyers in order to examine the importance and correlation between the

modularization strategy and sustainability. The interview includes 8 unique questions. The questions are aimed at general statements regarding the modularization strategy and concrete questions referring to the explicit advantages and disadvantages of the modularization strategy. (Table no. 1)

Over the course of the period of October 2016 to February 2017 the authors have examined a global company with multiple production facilities and subsidiaries. The activities of the company are aiming for profitable growth and a sustainable increase in value in order to ensure the long-term success. The customers, suppliers, and society recognize the company as a competent and reliable partner regarding the entire, common value chain.

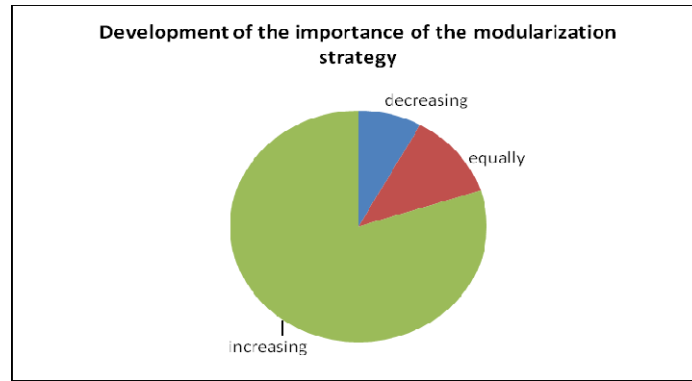
**Table no. 1: Questionnaire**

Question	
1	How long are you working on the field of the modularization strategy?
2	How do you define the modularization strategy?
3	Which points of contact have you had with the modularization strategy?
4	How did the importance of the modularization strategy for companies during the last 5 years?
5	Which experiences have you had with the modularization strategy (positive/negative)
6	How success-promising would you rate the modularization strategy as a company strategy? (Characteristics: certainly not; probably not; maybe; probably yes; certainly yes)
7	Which positive aspects have you noted due to the implementation modularization strategy?
8	Which negative aspects have you noted due to the implementation modularization strategy?
9	How important would you rate the significance of the modularization strategy for the sustainability of the company? (Characteristics: unimportant; neutral; important)

### 3. Results

The interviews reveal that the interviewees are working on the field of the modularization strategy for 4.3 years on average. Additionally, it can be stated that the participants are familiar with the term modularization strategy. Therefore, no further detailed definitions from the authors were required during the course of the interview.

The research indicates that professional buyers have had experience with the modularization strategy regarding the individual purchase volume, while managers have mainly had contact with the strategy for the organization and coordination of appointments and appointment inputs such as the determination of module agreements in individual committees or the with contact persons. Moreover, the surveys provide further guidance referring to the development of the importance of the modularization strategy as 40 out of 50 participants have noted an increasing significance of the modularization strategy. (Figure no. 2)



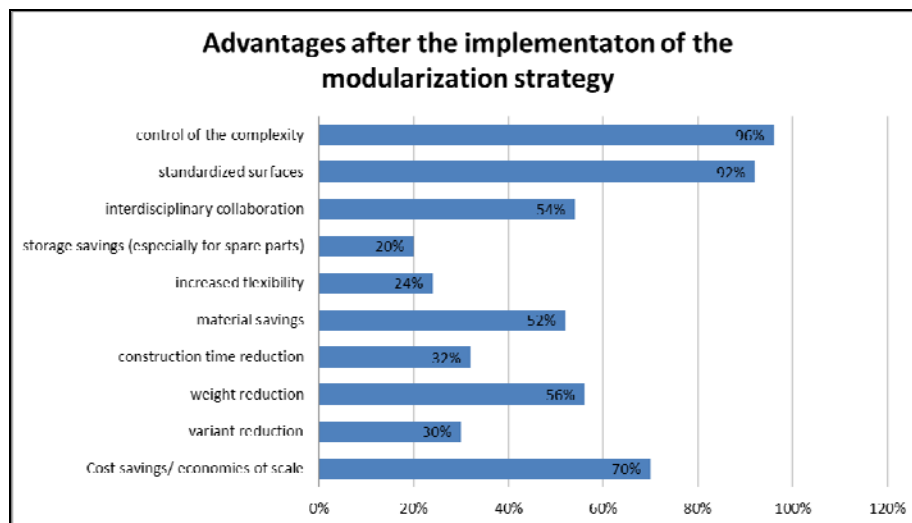
**Figure no. 2: Development of the importance of the modularization strategy**

Another clear result of the survey regarding the experiences and success-promising perspective of the modularization strategy as a company strategy is that 86% of the participants (43 out of 50) have had positive experience as well as they see a significantly successful perspective for the modularization strategy (4,26 out of 5 Pkt.).

The results of contrasting the positive and negative aspects of the modularization strategy can be summarized by the following main categories.

Negative: Organizational problems (coordination of appointments, Filling presentation slides, inter-divisional communication, stringent examination of the results - potential restrictions)

Positive: Cost savings/ economies of scale, variant reduction, weight reduction, construction time reduction, material savings, increased flexibility, storage savings (especially for spare parts), interdisciplinary collaboration, standardized surfaces, control of the complexity (detailed description in Figure no. 3)



**Figure no. 3: Advantages after the implementation of the modularization strategy**

The last questions underline the sustainability of the companies who implement modularization. 41 out of 50 participants have stated that in this context modularization is (82%) important (4 unimportant und 5 neutral).

### Conclusions

For manufacturing companies, the advantages of implementing the modularization strategy exceed the disadvantages. Based on the results of the interviews organizational issues appear to be significant disadvantages. Furthermore, the implementation of module-strategy-based processes has positive impact on the sustainability and strategic future orientation of the company. These results supplement and stand in line with the statement of Horst Wildemann of 2014.

This paper underlines and identifies the significance of the modularization strategy for the sustainable organization of global companies and therefore supports future research on the field of sustainable company strategies.

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## **STUDENTS' PERCEPTIONS AND ATTITUDES ON THE IMPACT OF THE COACHING COURSE**

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### **Abstract**

Feedback is essential in the communication process, at the organizational level, and therefore must be based on facts and not on their interpretation, that is why we believe that the university can create coaching programs for policy makers, for teachers and students.

The question we ask ourselves and to which we want to find an answer in the hereby article is related to the role of coaching in the academic world, and in particular, to the impact of the coaching course on the perception of students.

This study examines the social perception of the actors in the university system, establishes the positive and negative aspects of teaching coaching in the higher education system, all these from the students' perspective. The teaching of coaching courses will lead to the students' increase of awareness regarding their strengths and their needs of development. This research was conducted in ASE Bucharest, namely on the students attending the Business Coaching course.

**Keywords:** Coaching course, academic coaching, impact, students, awareness

**JEL Classification:** I20, I21, I29, I23

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### **Literature review**

Researches claim that, the best strategy in supporting students is the implementation of additional instruction and intervention strategies like coaching courses, which focus mainly on self-regulation and knowledge construction (Glenn, 2010). Recently, scholars started to study the impact and effectiveness of academic coaching in higher education institutions. According to researches, academic coaching courses increase students' awareness, engagement as well as performance (Katamei and Omwono, 2015). The model of academic coaching has as basis two theories: that of self-regulation (Boekaerts, 1999) and the constructivist theory (Piaget, 1953). The above mentioned theories provide the structure which outlines the procedure through which, students can increase their self-confidence and determination to succeed having as final goal the better administration of their knowledge construction process (Loyens et al. 2008). Through academic coaching, students can better control their knowledge with the help of their coach (Bettinger and Baker, 2013). The

partnership is complex, the coach assesses the student and offers feedback, at the same time, the student managing by themselves the learning experience (Procopie, Bumbac, Giușcă, Vasilcovschi, 2015). Also, according to Van Nieuwerburgh, (2012), the foundation of higher education coaching course implies a student-coach relationship built mainly on trust and confidentiality. Robinson and Gahagan (2010) consider that there are three major steps that higher education coaching courses imply: (1) goal setting, (2) self-assessment (regulation), and (c) reflection (to develop or improve skills).

**Methodology**

In order to assess the Business Coaching Course, between 15 to 30 March, a census type research was conducted on all students in the Master of Business Administration on Commerce, from the I-st and II-nd years of study, students who attended or are attending the above mentioned course. This research aims to identify the perceptions and attitudes of students towards the Business Coaching Course.

The objectives relate to:

- Measuring the impact of the course on students;
- Evaluating of course attendance usefulness for educational and personal goals of respondents;
- Identifying differences that students have experienced after attending the course;
- Quantification of the degree of importance given to the benefits obtained by students after completing the course.

The research started from the following assumptions/ hypothesis:

- There are significant differences among respondents about the impact that the course has on students.
- There are significant differences between respondents regarding the assessment of the usefulness of attending the course for educational and personal goals;
- There are differences between respondents on the degree of importance of the benefits obtained by students after completing the course.
- There are differences between respondents on the appreciation of the Business Coaching.

The research was based on a questionnaire with eight different types of questions: 3 matrix questions, a rating scale question, a closed one with several answers and 3 closed questions with one correct answer. The sample size was 110 persons, which is considered representative for the entire collective studied, taking into account the comprehensive approach in addressing the study. The sample structure is reflected in the table no. 1 below.

**Tabel no. 1: Sample structure by genre**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	female	76	69.1	69.1	69.1
	male	34	30.9	30.9	100.0
	Total	110	100.0	100.0	

The data were processed using SPSS version 23 and for the analysis were used various methods: analysis of the frequencies and structures, medium, standard deviations,

correlation, analysis of variance (ANOVA) test F and T, as well as comparisons of averages by testing a sample.

**Results and discussions**

The questionnaire contained a single closed, multiple choice question, namely, interviewees were put in a position to choose several possible answers regarding the description of the differences they have experienced as a result of attending coaching courses. Respondents chose from the following 6 variants: 1. Improved confidence; 2. Improved organization, goal-setting, or priority-setting; 3. Improved emotional regulation, stress management; 4. The feeling of being supported; 5. Better learning strategies or information storage and 6. Better communication. Table No. 2, below, shows that most of the options are directed to the improvement of the organization, or goal setting priorities (24% of all responses), the improvement the communication (23.3% of all responses) and the increase of self-confidence (20.1% of all responses). Lower frequencies were registered by the feeling of being supported (6% of total responses) and emotional stress management (7.2% of all responses). Indeed, coaching course focuses on learning how to prioritize things, on the gain of perspective, on improving skills and better organizing and managing in general.

**Table no. 2: Frequencies question with multiple answers**

		Responses		Percent of Cases
		N	Percent	
Experienced differences <sup>a</sup>	1.00	64	20.1%	58.2%
	2.00	78	24.5%	70.9%
	3.00	23	7.2%	20.9%
	4.00	19	6.0%	17.3%
	5.00	60	18.9%	54.5%
	6.00	74	23.3%	67.3%
Total		318	100.0%	289.1%
a. Group				

Questions 1, 2 and 7 are of the matrix type. The first two have 7 variables and the last four variables. To check if their scale was correct was used Cronbach  $\alpha$  coefficient and Fisher's exact test. All statistical reliability coefficient values indicate a higher scaling reliability, the values exceeding .700, as it can be seen in Table no. 3, below.

**Table no. 3: Statistical reliability**

Question	$\alpha$ Cronbach value	Items no.
1	.878	7
2	.892	7
7	.818	4

The use of the analysis of variance (Analysis of variance - ANOVA) (Table no. 4) allowed the identification of significant differences within the groups only for questions 2 and 7. With regard to Question 1, the value of F test for six degrees indicates that there are no significant differences between groups or within. The first question concerns the impact of the course of business coaching had on respondents, by 6 point rating scales, where 1 means

very poor and 6 very strong. The average of seven variables allowed the assessment of a strong impact on respondents. The second question concerns the usefulness of attending the course for educational and personal goals. Also, the responses were scored on 6 point rating scales, with the same meaning as question 1. The average of the seven variables allowed the assessment of the usefulness of participation in Business Coaching course for educational and personal goals as relatively strong on respondents. Question 7 refers to benefits obtained by students participating in the Business Coaching courses responses being ranked on 6 point rating scales, where 1 meant strongly disagree and 6, total agreement. The average of the four variables indicates the respondents' agreement to the four benefits mentioned by the question. Therefore, there is a consistency of responses from the investigated people.

**Table no. 4: The values of the analysis of variance**

<b>ANOVA question 1</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig</b>
Between People		331.538	109	3.042		
Within People	Between Items	3.673	6	.612	1.648	.131
	Residual	242.899	654	.371		
	Total	246.571	660	.374		
Total		578.109	769	.752		
Grand Mean = 4.7455						
<b>ANOVA question 2</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig</b>
Between People		418.151	109	3.836		
Within People	Between Items	26.977	6	4.496	10.827	.000
	Residual	271.595	654	.415		
	Total	298.571	660	.452		
Total		716.722	769	.932		
Grand Mean = 4.4519						
<b>ANOVA question 7</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig</b>
Between People		176.818	109	1.622		
Within People	Between Items	9.100	3	3.033	10.289	.000
	Residual	96.400	327	.295		
	Total	105.500	330	.320		
Total		282.318	439	.643		
Grand Mean = 5.1136						

To illustrate relationships between the variables of the three questions the authors decided to calculate the correlation of coefficients between them. Thus, for the variables from Question 1, outlined in Table no. 5 below, it is found that they are all directly correlated and with higher intensity at a significance level of 1%. There is an exception regarding the relationship between providing some effective strategies for goals achieving and the improvement of communication skills, among which there is a direct link, but weak ( $r = 0,241$  at a significance level of 5%). Greater values than the coefficient of correlation are registered between the variables: decreased stress, a greater sense of confidence and support and increased motivation, confidence, self-esteem ( $r = 0,701$ , at a significance level of 1%) between the improvement of structure, organization or time management and increased motivation, confidence, self-esteem ( $r = 0,645$  at a significance level of 1%) between the

improvement of structure, organization or time management and decreased stress, felt reassured or supported ( $r = 0,632$ , at a significance level of 1%), between improved communication skills and improved ability to focus on tasks ( $r = 0,605$ , at a significance level of 1%), between increased motivation, confidence, self-esteem and clarified goals or provided support for goals ( $r = 0,629$ , at a significance level of 1%), and between improved ability to focus on tasks and clarified goals or provided support for goals ( $r = 0,634$ , at a significance level of 1%).

**Table no. 5: Correlations between variables regarding the impact of the course**

Variables	Coefficient value						
Time management	1						
Decreased stress	.632**	1					
Increased motivation	.645**	.701**	1				
Objectives	.535**	.455**	.537**	1			
Communication	.241*	.400**	.417**	.329**	1		
Focus on tasks	.430**	.510**	.543**	.596**	.605**	1	
Support for goals	.558**	.573**	.629**	.387**	.429**	.634**	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Regarding variables concerning the usefulness of participating in the Business Coaching course in achieving educational or personal goals, can be noted some direct and intense correlations between them at a significance level of 1%, according to Table no. 6 below. For example, the correlation between improved goal setting, prioritization of goals, or goal advancement and increased confidence or decreased self-criticism/negativity ( $r = 0,644$ , at a significance level of 1%), between increased confidence or decreased self-criticism/negativity and increased concentration and organization of future career ( $r = 0,655$  at a significance level of 1%), between improved study skills, or information retention and reduced stress and better stress management ( $r = 0,604$ , at a significance level of 1%), between improved study skills or information retention and improved awareness / strategies to overcome the barriers ( $r = 0,623$  at a significance level of 1%) and especially between reduced stress or better stress management and improved awareness to overcome barriers ( $r = 0,765$ , at a significance level of 1%).

**Table no. 6: Correlations between variables regarding the usefulness of attending the coaching sessions for goal achieving**

Variables	Coefficient value						
Goal setting	1						
Confidence	.644**	1					
Carrier	.521**	.655**	1				
Information retention	.523**	.459**	.586**	1			
Reduced stress	.588**	.565**	.505**	.604**	1		
Awareness	.452**	.564**	.556**	.623**	.765**	1	
Overcome barriers	.571**	.484**	.338**	.476**	.570**	.472**	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

A similar situation is encountered on correlations between variables on the benefits of business coaching course for students. Thus, there are direct and strong correlation at a significance level of 1% between all four variables, according to Table no. 7 below. For example, the correlation between personal development and better self-knowledge ( $r = 0,645$  at a significance level of 1%) and between a better self-knowledge and the permanent development process ( $r = 0,608$ , a threshold the significance of 1%).

**Table no. 7: Correlations between variables regarding course benefits**

Variables	Coefficient value			
Personal development	1			
Self-knowledge	.645**	1		
Permanent development	.608**	.490**	1	
Expression	.542**	.531**	.430**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Another question of rating scale type, asked respondents to give grades from 1 (very poor) to 10 (very strong) for 6 strategies or skills learned from participating in coaching courses. The obtained averages of the six variables is around 8, with the mention that time management ability showed a slightly lower value (table no. 8). Even if the minimum of variability were 4 or 5, there is a small standard deviation, which means that these values were rather exceptions. Moreover, this is confirmed by the answer to the question of attending the Business Coaching course for making a difference in respondents' personal development, where all research participants answered yes.

**Table no. 8: Statistics of learned strategies or skills**

		Time management	Goal setting	Learning abilities	Study abilities	Project fragmentation	Resource use
N	Valid	110	110	110	110	110	110
	Missing	0	0	0	0	0	0
Mean		7.9636	8.2909	8.2545	8.2000	8.1273	8.4000
Std. Deviation		1.19577	1.18357	1.30234	1.41292	1.37547	1.36939
Minimum		5.00	5.00	4.00	4.00	4.00	4.00
Maximum		10.00	10.00	10.00	10.00	10.00	10.00

In order to verify the consistency of answers to this question, the coefficients of correlation between the six variables were also calculated. The results, listed in the Table 9 below indicate the existence of direct and strong correlations between all the six variables. For example, it may show correlations between time management and organization skills and goal setting ( $r = 0,701$  at a significance level of 1%) between time management and organization skills and strategies to improve learning skills ( $r = 0,713$  at a significance level of 1%), between setting objectives and strategies for improving learning skills ( $r = 0,743$  at a significance level of 1%) and between the fragmentation of projects into more components and use of existing resources ( $r = 0,743$  at a significance level of 1%).

**Table no. 9: Correlations between variables regarding strategies or learning skills**

Variables	Coefficient value					
	1					
Time management	1					
Goal setting	<b>.701**</b>	1				
Learning skills	<b>.713**</b>	<b>.743**</b>	1			
Study skills	<b>.661**</b>	<b>.656**</b>	<b>.650**</b>	1		
Fragmentation of projects	<b>.483**</b>	<b>.597**</b>	<b>.489**</b>	<b>.652**</b>	1	
Use of existing resources	<b>.664**</b>	<b>.607**</b>	<b>.657**</b>	<b>.660**</b>	<b>.747**</b>	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The question regarding the appreciation of the Business Coaching courses led to the answer that most respondents consider it to be good, on a scale 6 point rating scales, where 1 meant very poor, and six very good, which revealed an average of 5,5273 (tables no. 10 and 11). Also, the method of comparing averages by one-sample test, concluded that there are significant differences between respondents who evaluate the course as good (the t test being 9,439, for 109 degrees of freedom, the Sig. Value Being 0.000) and those who considered it very good (the t test being -8,462, for 109 degrees of freedom, the Sig. Value being 0,000), according to table 12 below.

**Table no. 10: One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
Course appreciation	110	5.5273	.58591	.05586

**Table no. 11: One-Sample Test**

	Test Value = 5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Course appreciation	9.439	109	.000	.52727	.4166	.6380

One-Sample Test						
	Test Value = 6					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Course appreciation	-8.462	109	.000	-.47273	-.5834	-.3620

To see the orientation of answers about the rate of appreciation of Business Coaching course by gender of respondents the Association Table no. 12 below was developed. It notes some differences in terms of gender affiliation. Thus, male respondents rated the course as good (20% of respondents) and very good (10.9% of all respondents). Female respondents had three options, respectively: rather good (4.5% of all respondents), good (18.2% of all respondents) and very good (46.4% of all respondents). Therefore, we can say

that most male respondents consider the course as good, while most female persons appreciated it as very good.

**Table no. 12: Cross tabulation course appreciation and genre of respondents**

			gen		Total
			female	male	
Course appreciation	Rather good	Count	5	0	5
		% within Course appreciation	100.0%	0.0%	100.0%
		% of Total	4.5%	0.0%	4.5%
	good	Count	20	22	42
		% within Course appreciation	47.6%	52.4%	100.0%
		% of Total	18.2%	20.0%	38.2%
	Very good	Count	51	12	63
		% within Course appreciation	81.0%	19.0%	100.0%
		% of Total	46.4%	10.9%	57.3%
Total		Count	76	34	110
		% within Course appreciation	69.1%	30.9%	100.0%
		% of Total	69.1%	30.9%	100.0%

**Conclusions**

The literature concerning coaching courses and their impact on students suggests that students benefit from coaching courses. The participants completing the survey found that coaching courses positively impacted their life. Thus, students reported that Business coaching course helped them. In conclusion, the first research hypothesis has been invalidated, while the other three were confirmed. Overall, it can be concluded that the assessment rate is positive in all directions investigated.

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## **QUALITY ASSURANCE IN THE TEACHER TRAINING PROGRAMS AT UNIVERSITY TEACHER TRAINING DEPARTMENTS. CASE STUDY: BUCHAREST UNIVERSITY OF ECONOMIC STUDIES**

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### **Abstract**

The goal of this evaluation research used in analysis of the quality of education programme cover three dimensions: (1) process evaluation and results of the educational program (the theoretical component of training); (2) training program relevance evaluation- in terms of current activities (indicators of quality related to acquisitions and transfers), and (3) program quality results and their use application. We started this study following the mission of this educational program at academic level, trying to maintain the direction of program aim and objectives. The analysis monitors 4 primary (internal) dimensions: theoretical – formative as imperative frame, applicative, beneficial – participative, change, in relation with 3 secondary (external) dimensions, which strengthen, facilitate and integrate with the primary dimensions: general aspects, previous training/mechanisms for training support, target group and groups results. As regards the results, the general feature is the acquisition of knowledge in the field of teaching. The TTD program activities provided the trainees a complex presentation of the types of intervention required by the teaching activity, by the research activity and by the class management, on the background of stimulating continuous quality only. The authors hope that all persons who will read this material will see it as a “useful tool” or an example of best practice for sharpening their understanding of a part of qualitative assessment.

**Keywords:** Quality assurance, teacher training programs

**JEL Classification:** A2

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### **Introduction**

Evaluation is an activity gaining appreciation and acknowledgement in an increasing and diversified number of spheres: from service quality assessment to the evaluation of the manner in which the (public or private) interventions achieve their objectives, or produce effects among the beneficiaries. This is due to the fact that evaluation tells whether a program or a project of an organisation is capable to provide quality or at high standards

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services. Universities, as higher educational organizations, are particularly interested to evaluate the quality of the education they provide. They developed sets of quality indicators in order to emphasize the key points of educational activity, identify high quality areas that have to be maintained or, if necessary, to be improved; identify priorities for organizational development they plan, or provide information regarding standards and quality within the organisation.

By definition, evaluation is a value oriented process. It is seen as a “process of establishing the merit and value of the things” (Scriven, 1991). Furthermore, evaluation means processing the information and providing feedback. In other words, evaluation is a systematic acquisition and assessment of information to get feedback from an object. Both approaches, convergent otherwise, show that evaluation is a systematic activity which deliberately uses ambiguously the term of “object” with reference, however, to programs, policies, technologies, necessities, activities, etc. the second perspective stresses rather the acquisition and assessing of information, than the pursuit of value. Entire activity of evaluation presumes collection and careful examination of real data, issuing value judgements based on valid information and conclusions of different interferences. The elements from Scriven’s explanation are under the form of a posteriori recognition (Vedung, 1997) of the merit, value and quality of the system outputs when referring to a planned change. Often, in education, the result of change is evaluated, and quality is thus wanted, and the a posteriori evaluations invoke the success, what is achieved by the change. The reference regards the quality of the outputs from the system in relation with the undertaken efforts. The importance of evaluation can also be related to the *functions* which it fulfils both by relation to the educational process, and to the educational system: control, system regulation, prediction, classification and selection, certification (Diaconu, 2004).

#### **Quality in Higher Educational Programs**

The evaluative process is necessary because its results provide the basics for the planning process that takes place at all the levels of education. For instance, at the organisational level, after analysing the results of evaluation the management, teachers, and students a decision of change is prefigured and an action is designed. New directions for the university management are opened by various projects which may result in reconsidering the management in terms of efficiency and equal opportunity, curricular development, human resources development, fund raising, or community relationships development. The projections are targeting the teachers, teaching plans, curricula, new sources and directions of information, changes at the mental and behavioural levels, and changes in learning and in teaching practices. Changes can be designed at students’ level, regarding the conscious and aware choosing of the curriculum, strong individualisation of the educational process depending on the interest of the pupils or of the students, changing the forms of final evaluation (exams) and increasing their weight in continuing the studies, changing the mentality and behaviour, being aware of own educational act, transition and successful insertion on the labour market.

A first answer to the previous questions focuses around the functions which the educational program fulfils in order to secure its finality and success. Any successful program has two functions: (Chen 2005, p. 5), an internal one – ensuring the transformation of inputs into desirable outputs, and an external one – constant interaction with the environment. Under the interaction with the environment, the educational program is considered to be an open system. Thus, one may speak of the permanent correlation of the system inputs, which must

be analysed in relation with the outputs. This relation actually is a transformation imposed by the environment surrounding the system (in which the program runs). An essential feature of the environment is increased competitiveness, and the transformation requires the capacity for permanent maximal effort (Cheung et al., 2011). The inversed connection, the feedback as action of evaluating the program, expresses its success or failure. Depending on the results of the evaluation, decisions are made regarding the allocated resources, the process of implementation, the relation with the environment; it is also possible to revert to previous stages and make adjustments. This latter component of the program highlights the major role of evaluation: provide feedback and allow improvements.

A second orientation of the answers is given by the assessment of the impact which the training program has. Even though the explanations regarding the evaluation are not comprehensive enough to capture all the aspects of program evaluation, they draw attention to an essential advantage: understanding the impact of the program on the beneficiaries or, in other words, whether the program meets the expectations of the beneficiaries. The project design is observed, the level of objective accomplishment is monitored, the resources must be properly allocated, the quality of results must increase, the uncertainty must decrease and decisions are taken regarding the evaluated program “evaluation focused on utilisation” (Patton, 2008). By improving the decisions, a climate of communication and cooperation between the interested parties is ensured, and errors are not repeated. The optimistic approach, the evaluation is beneficial for all, it creates an apparent consensus between the interested parties by highlighting the reasons why the public policies should be evaluated (Davies, 2016), this approach being translated and adapted within the programs of the organisations that supply educational services. On the background of the social dynamics, the increased weight of the reasons supporting the evaluation of the educational programs contributes to their permanent improvement and becomes a *sine qua non* condition of quality assurance (Teeroovengadum et al. 2016).

The results of the evaluation should serve equally all the interested parties, but this is rather an ideal than a reality. The evaluation has a multitude of potential users, each with different perceptions on the evaluation of program quality.

### **The Teacher Training Department at The Bucharest University of Economic Studies**

The Teacher Training Department (TTD) is a distinct academic structure functioning within the Bucharest University of Economic Studies, with the goal of professionalization in the teaching career and educational research.

The main activity of TTD consists in training provided to students and university graduates, mainly from schools of economics and business that are targeting a teaching career. Other activities are oriented to improve initial training of teachers of economics and economic subjects in further education programs and their teaching competences, to assist and provide support to teachers in the process of building and developing their teaching career, to assess pre-university teachers of economics and economic subjects that candidate for teaching degrees.

The TTD curriculum is derived from a general framework of competences that describes both professional and transversal competences developed through TTD programs. Each course of the training programs has its own contribution to competences development process. The syllabus is seen as an instrument of quality assurance and efficiency. It emphasizes competences that has to be developed, describes lectures planned to be provided

and class activities that will be conducted, content, teaching methods, references and assessment.

The curriculum for initial teacher training program, so called psycho-pedagogical module, is structured in three parts: core curriculum, extended curriculum, and optional curriculum. The core curriculum includes compulsory courses that provide basic psycho-pedagogical knowledge to students and teaching methodologies oriented courses and practical stages in schools. They all are representing so called Level 1 of psycho-pedagogical university program. After finalizing all compulsory courses, students will receive 18 credits, respectively 12 credits that means, 30 credits in total. Level 1 graduates are qualified teachers and legally with the right to teach in compulsory education system.

The extended curriculum is consisting in courses that are compulsory at the Level 2 psycho-pedagogical program, which means usually, university master programs. It represents an extension of the Level 1 courses, such as pedagogy or teaching methodology at the next level. Usually this means new topics, more complex syllabus, deeper or different perspective analysis of concepts, or issues related specifically with non-compulsory education. Stages in school are extended too. Level 2 students could spend one more semester in high schools, focusing on teaching activities at 11 or 12 grade, or they could assist university professors, plan and even teach class activities for university students. After graduation the Level 2 program, students will get 20 (10+10) additional credits and they could teach in non-compulsory education (high schools, 11-12 grades, and colleges or universities).

The optional curriculum and are oriented to complementary competences relative to the teaching ones, such as school management, teaching in multi-cultural contexts, planning educational programs, or educational counselling. Students have to choose 2 courses from some sets of courses specifically designed for teacher training programs. Optional courses are parts of the Level 2 program and will bring 10 (5+5) additional credits to graduates.

**Table no. 1: Teacher Training Programs at TTD**

<b>Program</b>	<b>Beneficiaries</b>	<b>Qualification</b>
Initial teacher training: Level 1	Students enrolled in bachelor programs in schools of economics and business University graduates	Teacher in compulsory education
Initial teacher training: Level 2	Students enrolled in master programs in schools of economics and business University graduates with Level 1 certificate	Teacher in non-compulsory education
In-service teacher training: 2 <sup>nd</sup> degree	Pre-university teachers	2 <sup>nd</sup> degree teacher in pre-university education
In-service teacher training: 1 <sup>st</sup> degree	2 <sup>nd</sup> degree teachers	1 <sup>st</sup> degree teacher in pre-university education

Source: [www.dppd.ase.ro](http://www.dppd.ase.ro)

In order to finalize a Level 1 or Level 2 program, TTD students have to write and present a graduation paper. They receive support from teachers to elaborate the graduation paper at

the quality level required by scientific standards and to properly demonstrate the knowledge and competences they gained. Graduation paper writing and presentation allow students to receive 5 credits per paper each level, in total 10 credits.

Level 1 program is credited with 35 (30+5) credits. Level 2 program is credited with 35 (30+5) credits too.

There are also special TTD programs special designed for in-service pre-university teachers of economics and economic subjects. They are counted as continuous training or further education of teachers. TTD works as an assessment center of teaching competences too and each year organizes exams for in-service teachers that candidate for 2nd and/or 1st teaching degrees. To get the 2nd teaching degree teachers have to pass 2 exams. The first exam tests teachers knowledge in teaching economics and economic subjects. Teachers have to demonstrate good economic and business related subjects knowledge and understanding, capacity to plan lessons, design effective learning activities for students, use active-learning methods in teaching, and assess students' knowledge and competences. In other words, they have to demonstrate that they are good teachers of economics or other economic subject they are teaching in school. The second exam is oral and is focusing on pedagogy, in general. To get the 1st teaching degree, teachers have to elaborate a paper emphasizing a particular economic or business content scientifically analysed and didactically valued from a teaching perspective. They are invited to an interview at TTD and asked to demonstrate that the paper they think about will demonstrate capacity to permanently update their knowledge in the field of economics and business, and use this knowledge in innovative ways in the classroom. Teachers have also to demonstrate very good teaching competences. TTD experts are observing and assessing teachers competences in classroom and decide if this meet or not the requirements for 1st teaching degree. There are high standards for 1st teaching degree, expressed by 9 as the minimum grade of a scale up to 10. The assessment process is ending with paper presentation in public. Teaching degrees are seen in teachers professional community as signs of professional recognition, prestige, and promotion in teaching career.

#### **Quality Assurance in TTD Programs**

The teacher training curricula are centrally designed by the Ministry of Education and have to be nationally applied. Following the national curricula, TTD provides a teacher training program to university students in economics and business at required quality level and standards.

In addition, TTD has proper mechanisms used to analyse periodically the knowledge gained by students in bachelor and masters programs and the changes in qualifications profiles. The period of analysis must not exceed a schooling cycle. Collected data about the number of students enrolled in TTD programs demonstrates that TTD quality assurance mechanisms work well during the all 5 years of the Level 1 and Level 2 programs. In the first year, the average number of enrolled students is about 750. At the end of the first year only 2/3 of them (about 500) graduate and only 370-400 are enrolled in the third year, which is the final year of Level 1 program. Data demonstrate a selection process while the program is running. In the first year, students can sign-up for TTD courses with no restriction. They have only to complete an application form that asks identification data as a student in the university. Actually students are signing-up if they are interested in, if they think to have a teaching career, or, we do not exclude this alternative too, by accident.

The standards are high, there are different kind of activities students have to do: there are courses, class activities, readings, and writings, and, of course, they have to study individually. In a 5 credit course, the percentage of individual study could reach up to 65%, including the time allocated to class activities and exams preparation. This could be very stressful for a first year university student and if he or she have difficulties to figure out short time after the beginning of the semester how to deal with all university requirements and successfully manage the learning process, most probably give up. Selection is made by exams too.

In Level 2 programs the selection effect is quite evident. At the end of Level 1 program about 300 students graduate, but only 100-150 students were enrolled in Level 2 program. The students' number could decrease in the 2<sup>nd</sup> semester and then in the 2<sup>nd</sup> year of the program. The decrease rate is lower than in the 2<sup>nd</sup> year of Level 1, about 10% in comparison with about 40%, mainly because of the fact that many of students who signed-up are familiarized with the standards and requirements and, although for them the time could be even scarce as it was in previous years of schooling (they could be employed and together with psycho-pedagogical program they follow a master program), they are independent learners who have effective learning strategies.

The selection made through exams is evident in TTD programs for in-service teachers.

**Table no. 2: In-service teachers in 2<sup>nd</sup> teaching degree program at TTD**

Year	Number of pre-university teachers of economics and economic subjects		Absolute variation	Relative variation
	Enrolled	Certified		
2012	26	19	7	27%
2013	20	18	2	10%
2014	28	23	5	18%
2015	32	29	3	9%
2016	24	18	6	25%

Source: TTD statistics

The variation between the number of in-service pre-university teachers enrolled in continuous training programs to get 2<sup>nd</sup> teaching degree and the number of those who successfully finalized them is not constant. Years with highest absolute and relative variation were 2012 and 2016. Attending courses organized at TTD to prepare teachers for the exams is a factor that significantly influence the results, mainly because provide teacher training and detailed explanations in respect with exam requirements. In 2012, only 54% of teachers who were examined attended the courses; in 2012 the rejection rate was 27%. In 2016, course attended rate was 58% and rejection rate 25%. Attending the courses could be a factor of success, and for sure, understanding the requirements in the assessment process and preparing for exams accordingly increase the probability of success.

**Table no. 3: In-service teachers in 1st teaching degree program at TTD**

Period	Number of pre-university teachers of economics and economic subjects		Absolute variation	Relative variation
	Enrolled	Certified		
2012-2014	26	24	2	7.7%
2013-2015	32	32	0	0%
2014-2016	35	24	11	31%

Source: TTD statistics

For teachers who participated in 1<sup>st</sup> degree program year 2012 was very good: all completed successfully the program. On the contrary, 2016 was a bad year, with a 31% rejection rate. In our understanding, this conduct to idea, that selection process should start at the very initial moment of the program and only teachers who demonstrate at the interview a clear understanding of scientific and methodological requirements in respect with their paper should be will be accepted as 1<sup>st</sup> degree candidates.

Together with requirements and standards regarding the learning process, assessment requirements are quality assurance instruments in TTD programs. Regularly, students have to pass exams, participate in class discussions, take tests, present papers, have projects, conduct investigations or surveys, and so on. The required activities are described in the course syllabus and presented to students. Students can make their own study plans, depending of the level of performance they would like to have and availability to spend time and make efforts to study a specific content/subject.

**Table no. 4: Syllabus of Teaching economics. Assessment**

Assessment criteria	Assessment methods	Percentage in the final grade
Understanding basic concepts and theories of teaching economics and economic subject at compulsory pre-university level; Applying concepts to solve problems, sustain and interpret ideas	Exams	50.000
Planning teaching activities on economics/ economics lessons	Case studies in respect with textbooks, curricula, lesson plans, and assessment; Designing a lesson, an assessment tool, and a set of handouts to be used in a class activity	30.00
Demonstrating positive attitude toward teacher training	Attending the class activities	10.00
Demonstrating effective teacher behavior	Teaching simulation	10.00
Minimum performance standard: - Knowing the required documents for teaching activity: the general teaching plan for economic subjects, the syllabus, and the textbooks - Arguments in favor of one particular textbook to be recommended to school/students - Developing annual and semester school plans and designing a lesson		

Source: <http://fisadisciplina.ase.ro/SelectDisciplina.aspx?IDD=2398&IDF=1>



Quality is ensured by the teacher too, who makes the assessment. TTD has regulations regarding students' assessment and asks teachers and students to rigorously and consequently comply with these. It is clearly stated that assessment should be correct, objective, according with established criteria; criteria and minimal standards should be communicate to students. Learning outcomes should be recorded in standardized format documents.

Pre-service teacher training in schools is part of the teaching competences developing program and, according with university regulations. Quality assurance procedures require at least 10% of the time to be allocated to practical activities/stages. In the level 1 program students have to spend 78 hours in schools and in level 2 program, 36 hours. They have to observe classes and extracurricular activities, to interact with students, to plan lessons, to assist teachers in classes, and to teach. For all these activities there are standards and requirements. Schools that serve as training centres are carefully selected according with clear defined criteria (profile, specialization, teachers experience, competence, and availability to tutor). The tutors are invited to apply for this position and they are asked to demonstrate tutoring competences. Quality assurance procedures require a balance between experience and openness and periodically renewing the group of tutors.

### **Conclusions**

TTD should provide information about qualifications, programs, certification, teaching and research staff, and opportunities provided to students, and any other aspect that could rise public interest, in general or students interest especially. Such information could be, for instance, professional training for students or scholarship regulations.

TTD programs are teaching competences oriented. Students that finalize the programs should be able to teach economics or one of the economic and business subjects thought in schools. Teaching competences should be defined separately for compulsory pre-university education and non-compulsory pre and university education and developed through specific psycho-pedagogical programs.

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## **ORGANIC COTTON PRODUCTS: AN ANSWER TO A MORE SENSITIVE DEMAND TO ENVIRONMENTAL, HEALTHY AND ETHICAL ISSUE**

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### **Abstract**

Cotton crops are largely made of genetically modified plants. As a consequence, it is difficult to find areas for organic farming. Despite this, thanks to economic values and important development potential, organic cotton has managed to occupy wide market areas. The aim of this paper is to highlight the relationship between market potentialities of organic cotton both with the income expectations of producers and the growing interest of consumers on topics such as social and environmental sustainability.

In particular, the strong image of environmental and social sustainability, related to organic cotton, make it particularly suitable to occupy market niches characterized by the demand of consumers with a high willingness to pay for products with these characteristics.

Much sectors whose products have been involved with market niches of organic cotton provide an important base for significant future evolution.

The solidity of this perspective is therefore linked to the ability of the sectors concerned to provide for adequate organisational and combined measures.

In the absence thereof, the agricultural phase can scarcely realize profitable prices. As consequence, the quantity of product needed to sustain the potential of development cannot be available.

**Keywords:** consumer behaviour, agriculture, organic cotton, cotton crops, environment, sustainability.

**JEL classification:** O44, Q13, F64, Q1

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### **Introduction**

The cultivation of genetically modified plants has experienced a rapid dissemination; in the last twenty years, the extension of cultivated surfaces has grown by more than 100 times, from 1.7 million hectares in 1996 to almost 180 million hectares in 2015.

Nevertheless, Countries involved in transgenic cultivation are a limited number. In particular, 39.5% of cultivations are concentrated in one Country (USA), 77.7% in three Countries (USA, Brazil and Argentina), 98.6% in the eleven Countries (out of 28 in total)

where the surface of GMO cultivation is greater than one million hectares. 87.4% hectares of land cultivated using GMO is situated in the American Continent.

These data show that, where GMO cultivation has been introduced, conventional cultivations have been, *de facto*, replaced.

In the main producing Countries, the rate of adoption of GMO cultivation exceeds the 90% of all the involved plants, that therefore are in limited number, as already stated for involved Countries.

At present, in the face of 404 events recorded for 29 different plant species, 99.7% of cultivation focuses on only four plants: soy (51.2%); corn (30.1%); cotton (13.4%); rapeseed (5.0%).

Given the characteristics of the species concerned, that are all industrial cultivations whose products are intended for processing, there is no specific market interest to distinguish the type (GMO or GMO free) of the raw materials intended for processing.

In this regard, it should be noted that, also in European Union where GMO needs to be authorized before being placed on the market, it is not foreseen a labelling system for products obtained using GMO as productive factor (for example, for animal products obtained feeding animals with GMO, any indication is provided for consumer).

On the basis of the above, a particular exception is constituted by the type of cotton for which there are specific market segments, despite the spread of GMO cultivation. In fact, important brands on a global level are very interested in products made with organic raw materials and with a GMO free certification.

In this sense, one of the main reasons of interest is attributable to organic cotton ability to be used to qualify a number of products designed for specific market segments.

The use of organic cotton is, in fact, an effective tool for enhancing of products able to satisfy particular requirements of the consumer, linked to the adoption of lifestyles careful to environmental issues, ethical, and, in any case, to aspects aimed at distinguish by the prevailing model of consumption.

### **1. Organic cotton: productive and market data**

Taking into consideration that 76.9% of world cotton production is concentrated in five Countries (India, China, USA, Pakistan and Brazil) in which the rate of adopting GMO is almost always more than 90% (only in Brazil is 73.3%), it is evident both the high risk of admixture of GMO and non-GMO crops and the difficulties of finding non-GMO products and seeds on the market.

In this context, the production of organic cotton had difficulties in spreading and it is now concentrated in an exiguous number of Countries: only nineteen. An additional limitation for this small business arises from the fact that 92.2% of production is concentrated in only five Countries (India, China, Turkey, Kyrgyzstan and USA); 85.1% in three Countries and 66.9% in only one Country (India) (Textile Exchange, 2016).

It is important to note that India and China are at the same time the major world producer both of organic cotton and transgenic cotton.

Notwithstanding these difficulties, organic cotton crops show a growth trend, from 324,000 to 350,000 hectares (+8.0%) in the period 2010-2015. This growth trend is set to continue in the future considering the in-conversion areas (85,671 hectares in 2015) that will end this step in the three-year period 2016-2018.

The diffusion of organic cotton is part of the more general market expansion of organic sector on a global scale.

In the last twenty-five years, the areas of organic methods of production increased from 11 to 43.7 million hectares, involving 172 Countries in the World.

However, organic productions, although growing, represent so far only a small portion of agricultural worldwide, affecting about 2.9% of cultivated lands.

The presence of organic farming is higher in Australia (39.4% of lands), Argentina (7.1%) and USA (5.0%). The farmers who are interested in organic farming are about 2.3 million on a global scale; 28.3% of these (about 650,000 farmers) operate in India and are engaged in large part in the cultivation of organic cotton. However, these data refer to an estimated farming population of about 1,5 billion people globally and of about 228 million in India (FICCI, 2015). It follows that, the incidence of farmers involved in organic productions is very low (1.5% globally, 0.07% in India) and is far less than that considered for lands, both on the overall total (2.9%) and in the same India (0.5%) that, as above mentioned, counts the highest number of farmers involved (FIBL, 2016).

We should also emphasize that, in the wider context of organic productions, cotton crops have a particular meaning not so much in terms of cultivated areas (0.8% of the total) but just like farmers involved (about 194,000, equal to 8.4%) and incidence on the total market value (15.8 billion dollars on about 80, equal to 19.8%).

Consequently, within the sector of organic farming, organic cotton production is of particular interest both in terms of economic value and chance of remuneration for involved farmers (Textile Exchange, 2015).

However, emphasis must be placed in this regards that the chance to achieve profitable prices is strictly connected with the ability of economic business organization and integration within the production chains. Where these conditions exist, in the case organic cotton is treated within product chains, farmers are able to obtain prices 20-30% higher than that of transgenic or conventional cotton.

It is evident that the level of development of socio-economic context where production processes take place, may affect the possibility to carry out dedicated supply chains.

For this reason, farmers operating in less developed Countries find it more difficult to obtain for organic cotton higher prices compared to conventional or genetically modified cotton.

For example, notwithstanding India is the world's leading producer of organic cotton, producers find it difficult to sell their products within dedicated supply chains, and they're unable to charge fair and profitable prices.

This contributes to determining both the abandon of organic cotton in favour of other organic crops and the loss of the organic method.

These situations can lead to the weakening of the agricultural production phase. As consequence, there is a risk of not having the quantity of product required to support the development of the sector.

It follows that, the ability to realize appropriate organizational levels and economic integration is crucial for the development of the sector, since it enables:

- to maintain and develop an agricultural base able to meet the demand for organic raw materials, thus supporting the development potential of all sector;
- to ensure a supply management coherent with the market needs and to settle on a contractual basis the different phases from the acquisition of raw materials (in particular the seeds acquisition that is always difficult in a market where GM cultivations are prevalent) to product certification.

With this in mind, we have to consider that where needed organizational levels are well realized, the cultivation of organic cotton is useful in creating a virtuous circle for the benefit of all actors of the chain: farmers, traders, retailers, consumers.

Organic growing practices imply a more responsible use of natural resources and, among other things, allow a better preservation of soil fertility.

The possibilities of obtaining higher prices for the raw material have a positive impact on farmer's income and, at the same time, it is a means of enhancing access to food and socio-economic conditions in less developed Countries.

Organic growing practices and the supply chain integration, useful for making it an economically viable, need an adequate level of preparation. They are thus a useful way for improving farmer's level of education and training.

It is important to note that organic cotton crop helps developing Countries farmers to access specific market segments like, for example, fair trade, that, as it is known, can allow the activation of socio-economic development processes of local realities.

The supply of organic raw material can enable the same benefit for farmers, traders and retailers. The major benefit is the possibility of occupying market niche on which certified and of high quality products may be placed, intercepting a dynamic and high willingness to pay demand.

Added to this is the possibility to link the firm's image to products that incorporate ethical and environmental values in order to strengthen the credibility on the market.

In the end, consumer through the purchase of products with ethical and environmental certified values, is recognised as an individual possessing rights and it also contribute to the environmental safeguard and to the improvement of living condition of farmers in developing Countries.

## **2. Organic cotton and consumers**

At present, the consumption is one of the phenomena which best expresses the characteristics of contemporary culture. For this reason, the analysis of consumer's behaviour cannot be limited, as once done, only to economic implications, but in a wider view, also to a sociological and anthropological implications (Douglas, 2002) (Campbell, 2005) (Mc Cracker, 2005) (Ritzer, 2005).

Notwithstanding in advanced societies the consumption is no more considered as a secondary factor respect to production and, as a consequence, consumer is no more seen as a taxable person, in the present globalization phase the homologation in consumption is still an important issue. However, this has happened in an evolving social context in which, the borders among the different social categories are no more based on class differences but on different lifestyles.

There has been a development from the traditional consumption patterns, based on social stratification system (Veblen, 2005) and, thus, able to express social differences (Baudrillard, 1998) (Bourdieu, 2016), to the present complex systems where every consumer, regardless his social state, varies the consumption dimension in accordance with the adopted different lifestyles.

In this context, the consumption of goods is no more an act aimed at showing a social status, but it expresses the cultural framework underpinning consumer is intended to refer (Douglas, 2002).

According to this, through specific consumption choices, every single person try to be assimilated to social groups expression of lifestyles connected with these forms of consumption (Douglas and Isherwood, 1979).

It follows that the consumption of goods identifying a specific lifestyle gains social significance because it summarises all the different components of appreciation of corresponding consumption pattern (Mc Cracken, 1986).

The purchased goods take on a symbolic meaning and it becomes the main tool trough which consumer qualify his lifestyle and his membership to a specific social category (Miller, 1995).

These characteristics are particularly intense when involving goods and lifestyles with implications in health and environment.

These implications can have a greater impact on the attitudes of potential buyers that often put in the backseat the price, usually of primary importance.

An interesting reference to that, may consist in studies investigating the interest of Italian consumers about information on the use of genetically modified feed in livestock, not covered by European legislation right now (Vieri and Calabrò, 2014). In particular, we refer to a study, that through the conjoint analysis with reference to two animal products applicable to two different market segments (beef fillet and chicken meat), has calculated utilities based on true intention of acquisition of proposed offers. With regards to both the products in question, the utility linked to the use of non-transgenic feed was positive and even the most important for consumer's choice (Vieri, 2006).

In particular, the importance of this factor in consumer's choice was higher than the price both for beef fillet (39% versus 37%) and chicken meat (48% versus 42%). Consequently, according to the results of the study, consumers are willing to pay an extra charge of 9.60 and 4.20 euro per kilos respectively for beef fillet and chicken meat resulting from animal fed with non-transgenic feed.

In the above-mentioned study, the motivations that influence consumer's choices are not based essentially on objective facts or scientific evidences, but rather on sensibility and, indeed, worries about healthiness and naturalness of food products.

In this sense, analogies between the given example and organic cotton consumer's choice are very close. In the same cases, in fact, we refer to products that are in close contact with the individual for which the same above-mentioned sensibilities and worries may exist (Euromonitor International, 2016).

It follows that, it is consistently attributable to organic cotton market the same characteristics of current consumption patterns, especially of the so-called "satiety based society" already identified for foodstuffs (Malassis, 1997). According to this pattern, for the purpose of consumption, the importance of income is reduced while the importance of socio-economic variables is increased. This means that consumers are more sensitive to environmental, ethical and healthy characteristics and consequently, they are looking for products able to meet needs increasingly conditioned by intangible requirements (Euromonitor International, 2017).

In the current historical phase characterized by globalization, every single person is in a double antithetical position: from one side he feels himself as an integral part of global problems and economic dynamics and, from the other side, due to the standardizing pressures his individuality is cancelled.

In this context, consumer has two equally strong competing needs that force him, on one hand, to look for the social integration in consumption standardization and, on the other hand, to express his individuality.

In the last years, among the many issues with global relevance, the environmental subject plays an important role. As consequence, the possibility to buy products with high sustainable value, enables consumers to be socially integrated and, at the same time, to express his individuality as an active player respect to a global problem, thus satisfying the above needs.

In the light of the above, it seems evident that organic cotton has the right credential to intercept the above described demand.

In particular, the characteristic qualifying more organic cotton respect to conventional or transgenic one is the environmental impact.

Like all industrial farming, cotton is principally a high intensity monoculture; its production necessitates large water use and chemical inputs.

In this respect, it is considered that, on a global scale, cotton crops occupy around 2.5% of cultivated lands, but they use 16.0% and 6.8% of total herbicides and insecticides.

It follows that, the organic cotton ecological footprint is significantly smaller than conventional or transgenic one, as a result of different inputs needed.

Some studies supporting this, have been conducted in California ([www.sustainablecotton.org](http://www.sustainablecotton.org)). These studies have shown that organic cotton ecological footprint is lower than conventional and transgenic one both for land use (cropland footprint 0.83 versus 2.10) and water use (water footprint 1.56 versus 2.88) and CO<sub>2</sub> emission (carbon footprint 2.29 versus 4.77).

In addition, the cultivation of organic cotton excludes the use of genetically modified products and fits perfectly the consumer's needs of environmental protection and, at the same time, can qualify the principal production (textile fibre GMO-free) and can contribute, although in small part, to reducing the use of Genetically Modified Organism (GMO) in food supply chain.

At present, in fact, about 65% of world cotton production, trough by-products of oil seeds extraction, is used in the manufactures of feeds re-entering in the food chain.

This means that the image of organic cotton crops is good both for its low environmental impact and its contribution to food safety.

This last consideration, not strongly supported by scientific evidences, give us the opportunity to connect positively organic cotton and the above-mentioned categories of consumption.

### **3. The market of organic cotton: current sectors and possible future developments**

Taking into consideration the present evolution of the demand, organic cotton is now entered in various market sectors, and it represents a great potentiality to catch new tendencies and opportunities, especially in that areas where the consumers show great interest in quality and safety.

For this reason, an important market segment is that of family and baby wear. In this segment, consumers place special emphasis on product quality especially regarding productive processes not involving the use of refining chemicals and, consequently, with a lower risk to health.

Similar concerns shall be expressed by consumers (especially the most informed ones) as regards the naturalness of personal care products.



On this matter, it is interesting to show the results of a recent research conducted in Argentina (Graham, 2015). This research shows the presence of glyphosate residue in 85% of the cotton made cotton swabs, wipes and sanitary products submitted for examination. As it is well known, glyphosate is the most commonly used herbicide in genetically modified crops and, in 2015 it has been included among potentially carcinogenic substances by World Health Organization.

Consumer has the same sensitivity about certain features which distinguish specific types of products that, using organic cotton as raw materials, are better able to identify with themes such as environmental safeguard and ethical and social values. It is the case of outdoor industry and sportswear market segments; several brands, in fact, have for a long time cotton ranges or product lines made from organic raw materials.

The identification with positive values is the key element for the future development of organic cotton. In particular, the strategy of many luxury brands is to have sustainable product lines. This happens, for example, in various sectors such as luxury, home textiles, home equipment and business to business. In this last case, for several products and services, there is a great interest in developing a better image linked to sustainability (Boumphrey, 2016). For this reason, gadgets are sold or submitted together with organic cotton made products.

According to Textile Exchange data, in 2015, brands using exclusively organic cotton as raw materials were 24 (+33% compared to 2014); organic cotton involved however 42% of brands on the market. In particular, in the top ten of cotton users, 29.6% of raw material is organic cotton; in 2014 this datum was 20.2%.

These data show the possibility of good development prospects; they are also well corroborated by the projection in same sectors; for example, for personal care it is forecast a growth of 9.6% per year until 2019.

### **Conclusions**

World cotton production largely comes from GM cotton plants. In this context, notwithstanding organic cotton production is still a small reality, it presents economic values and great development potentiality.

These values and potentialities are largely attributable to the image of social and environmental sustainability that is easily associated with organic cotton.

Thanks to these characteristics, organic cotton is particularly suitable for enter market niches characterised by a demand sensitive to environmental, social and ethical issues and with a higher willingness to pay for products having these characteristics.

Organic cotton market niches involve several sectors which range from personal and baby wear to personal care, luxury, home textiles, outdoor and sports industry and business to business.

Generally speaking, organic cotton production can provide business opportunities and benefits all along the chain. However, there are some weak points mainly related to agricultural, where the possibility to have remunerative prices is strictly linked to the organization's ability to be integrated with all the actors involved.

These situations can lead to the weakening of agricultural production resulting in not to dispose of the right quantities of product needed at supporting the development potentialities of this sector.

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## STUDY ON HOW STARTUP ASSISTANCE ORGANIZATIONS EVALUATE NEW VENTURE SUPPORT PROGRAM PERFORMANCE

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### **Abstract**

Startup assistance organizations have become more and more important to the survival and development of new ventures in the dynamic and extremely competitive business environment of today. Within this paper, the authors analyze the up-to-date theoretical literature and empirical studies from the past six years which deal with the way startup assistance organizations measure the performance of their new venture support programs. The main goal is to get an in-depth understanding of the metrics these organizations use to measure performance and set the premises for further research concerning the impact of knowledge and competency based networks on the performance of new ventures.

**Keywords:** Startup assistance organization, Performance, Metrics, New Ventures

**JEL Classification:** M13 (O3, L2)

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### **Introduction**

The dynamic and extremely competitive business environment of today challenges the survival and development of new ventures, especially in high-growth industries. This reality has consequently driven the extensive development, during the last decade, of startup assistance organizations (SAO), which act as networks based on knowledge and competency for the ventures they support. In order to better understand to what extent such organizations affect the performance of startups it is important to investigate what type of metrics SAOs use to evaluate the success of their members. This is a debated subject in the academic environment, as well as in the business world, as such organizations start to gain traction and influence in shaping the venture and investment environment.

The objective of this paper is to identify best practices of how SAOs measure performance of the startups they support. These metrics are important as to understand how SAOs understand and evaluate performance.

The article presents, at first, the key concepts used and delimits them within the conducted research. The main part of the article consists in an up-to-date analytical review of

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benchmark theoretical literature and empirical studies from the past 6 years dealing with SAOs. Finally, the authors present a synthesis of the most important metrics taken into consideration in evaluating startup performance within SAOs.

### **Startup Assistance Organizations – what are they and why should their performance be measured?**

For the scope of this paper we define startup assistance organizations as all types of organizations and programs which support entrepreneurs to bring their products or services to the market (Dempwolf, Auer, & D'Ippolito, 2014) and we take into consideration business incubators and business accelerators. The criteria used to select these SAOs is: duration; access to a network; synergy potential within the program; level of competition among participants / participant teams within the program.

Considering the main objective of these organizations, historically researchers identified three generations with different main goals (Barrehag, et al., 2012). The objectives evolve along with the economic and social focus of the business environment, from industrialization towards digitalization. As these goals evolve, so did their organization form. (Ceașu, Marquard, Irmer, & Gotesman, 2017). The first SAO was founded in 1959 in New York by Joseph Mancuso, as a framework to assist and support new ventures to grow and develop (Barrehag, et al., 2012).

The concept of business accelerator derives from the business incubator. The first was founded in 2005 by Paul Graham in Cambridge, Massachusetts (YCombinator).



**Figure no. 1: Evolution of SAO goals**

*Source: Authors' own contribution based on Barrehag et al. (2012)*

Today's focus on innovation and identification of synergies creates a very demanding and competitive environment for developing start-ups. In this context, SAOs play an important role, especially business accelerators. The main differences between business incubators and business accelerators refer to the selection process, the duration of the support program, type of support offered and investment, as it can be seen in Table 1.

A significant difference among the two types of SAO is the cost and investment structure, considering that business incubators do not usually have funds to invest in the ventures, whereas the business accelerators invest up to \$25000 and, also, take equity in the supported ventures. Besides the investment volumes and high exposure these SAOs receive nowadays, the way they are connected to the business and investment world and the whole accelerating program raises debates, both in the research, as well as in the business community.

**Table no. 1: Business incubators vs. business accelerators**

SAO Type	Business Incubators	Regulation
Participants	<ul style="list-style-type: none"> <li>• All types, including science-based businesses (such as biotech, nanotechnology, clean energy, etc.)</li> <li>• All ages and genders, including those with previous experience in an industry or sector</li> </ul>	<ul style="list-style-type: none"> <li>• Technology-based ventures (web-based, apps, cloud-based, software, etc.)</li> <li>• Ventures which do not require significant immediate investment or proof of concept</li> <li>• Mostly young people, technology enthusiasts, gamers and hackers</li> <li>• Focus on small teams, not on individuals</li> </ul>
Selection process	<ul style="list-style-type: none"> <li>• Competitive selection, often from the local community</li> </ul>	<ul style="list-style-type: none"> <li>• Highly competitive open selection, from wide regions, national or even global level</li> <li>• New ventures are assisted in batches or "classes"</li> </ul>
Duration	<ul style="list-style-type: none"> <li>• 1 to 5 years (average of 33 months)</li> </ul>	<ul style="list-style-type: none"> <li>• Generally, 3 to 6 months</li> </ul>
Type of support offered	<ul style="list-style-type: none"> <li>• Access to management and specialized intellectual property consulting</li> <li>• Access to networks of experienced entrepreneurs</li> <li>• Support entrepreneurs gain skills</li> <li>• Facilitate external financing</li> </ul>	<ul style="list-style-type: none"> <li>• “Fast-test” validation of ideas</li> <li>• Opportunities to create a functioning prototype and identify initial customers</li> <li>• Connecting entrepreneurs to business consulting and experienced entrepreneurs</li> <li>• Programmed events, intensive mentoring and business skill workshops</li> <li>• Hosting for the web or mobile apps</li> <li>• Assistance in preparing investor pitches or negotiations</li> </ul>
Investment	<ul style="list-style-type: none"> <li>• Usually does not have own funds to invest directly</li> <li>• More frequently than not, does not take equity</li> </ul>	<ul style="list-style-type: none"> <li>• Invests \$18000 to \$25000 in teams of co-founders</li> <li>• Takes equity in every investee (usually 4 to 8 percent)</li> </ul>

*Source: Authors’ own contribution based on Atkins, 2011 (National Business Incubation Association) & Miller & Bound (2011)*

Given the investment volumes and the high exposure of SAOs nowadays, there is much debate in the academic research community, as well as in the business environment, regarding the impact of these organizations on the new ventures’ performance. In order to

evaluate this performance, the first step is to better understand which metrics SAOs use in order to assess their own performance.

### **Methodology**

To achieve this, the authors of this article conducted a literature review of benchmark theoretical literature and empirical studies from the past six years. The research has taken into consideration articles published in international journals indexed in international databases and studies conducted by renowned international institutions. The article selection has been conducted by taking into consideration the following criteria:

- Keywords: startup assistance organizations (SAOs), business accelerators, business incubators, performance, metrics;
- Publishing date: after 2011 (inclusive).

The reviewed literature has been broken down in two groups function of the type of metrics used to evaluate performance: during the program or post-graduation. This differentiation has been made for two reasons. First, to group the identified metrics and be able to compare them. Secondly, to facilitate the reader to better understand the presented data.

### **Literature review synthesis on metrics used during the program**

It can be noticed that the metrics group used by SAOs during their programs are mostly quantitative and focus more on the structure and design of the support program itself. These metrics can themselves be organized in three categories: cohort relevant metrics; business relevant metrics, and pre-graduation investment relevant metrics.

The *cohort relevant metrics* refer especially at number of applicants, admission rate, actual number of participants, participants' retention rate, number of graduating ventures, level of program occupation (Tseng, 2011; Dempwolf et al., 2014; Theodorakopoulos et al., 2014; White, et al., 2014; DEEPCenter, 2015; Bliemel, et al., 2016). These are relevant to the SAO performance as they offer the basis for the evaluation for all further metrics.

The *business relevant metrics* identified by researchers refer to business relevance and sustainability, number of gained customers within the program, sales and employment growth during the program, level of skill and competencies development, number of interactions within and outside of the SAO ecosystem, rate of failing ventures within the program (Tseng, 2011; Tavoletti, 2013; Dempwolf et al., 2014; Theodorakopoulos et al., 2014; Valliere et al., 2014; Bliemel, et al., 2016). Auditing and analyzing the type of business relevant metrics that a SAO uses can be a first step to evaluate its impact on the ventures it supports.

The pre-graduation investment metrics refer to aspects such as number of investors at demo day, amount of funding received by ventures, number of failed or successful investments, level of investment received per venture during the program (Dempwolf, et al., 2014; Theodorakopoulos, et al., 2014). This set of metrics is relevant to assess the SAO performance, as it measures their ability to connect assisted ventures to relevant funding and to support them in achieving investments during the program.

**Table no. 2: Performance assessment metrics during the SAO program**

<b>Authors</b>	<b>Performance assessment metrics - During the program</b>
Tseng, 2011	Failure rate of small businesses Relevance Sustainability
Guidelines - Metrics & Milestones, 2013	Medium-term impact: No. applicants & No. admitted ventures No. graduating ventures Class size
Tavoletti, 2013	Potential for early international growth Ability to create options
Dempwolf et al., 2014	Short-term: No. applicants & No. participants No. investors at demo day % of ventures receiving next-stage funding % of ventures acquired % of failed ventures No. investments & Size of investment / venture No. gained customers
Theodorakopoulos et al., 2014	Occupancy No. graduating ventures Survival rate Level of funding received / venture Sales growth / venture Employment growth / venture
Velliers et al., 2014	Knowledge transfer Development of skills and competencies Changes in beliefs, attitudes and intentions Stakeholder satisfaction for participants and others
White et al., 2014	No. participant retention No. participant graduates No. jobs created No. of new products launched
DEEPCenter, 2015	No. applicants Admission rate No. supported startups
Bliemel et al., 2016	No. interactions within & beyond ecosystem

Source: Authors' own contribution

**Research synthesis on metrics used after the end of the program**

The metrics used to evaluate the performance of SAO programs after the venture cohort graduates the program can also be categorized in three types:

- Venture survival relevant metrics;
- Post-graduation investment relevant metrics, and
- Impact relevant metrics.



The metrics used to evaluate the aftermath of the program are mostly, also, quantitative, but start to have a qualitative dimension, especially the ones referring to impact.

The metrics relevant to *venture survival* take into consideration indicators such as venture profitability, revenue, positive cash-flow or sales after program graduation, number of jobs created, internal rate of return, number of employees, survival rate three to six months after graduation (Barrehag et al., 2012; Guidelines - Metrics & Milestones for Successful Incubator Development - A White Paper, 2013; Dempwolf, Auer, & D’Ippolito, 2014; DEEPCenter, 2015; Knott & Haguewood, 2016; Rostarova & Rentkova, 2016). These metrics show to what extent the graduating ventures are sustainable in an uncontrolled business environment. This is relevant for evaluating the ability of the SAO to efficiently transfer knowledge and competencies to the assisted ventures.

The next type of identified metrics are the *post-graduation investment relevant metrics*. These refer mainly to the ability of the ventures to successfully obtain a profitable exit or gain follow-on investments (Chang, 2013; Wise & Valliere, 2014; DEEPCenter, 2015; Bliemel et al., 2016).

**Table no. 3: Performance assessment metrics after the SAO program**

Authors	Performance assessment metrics – After the end of the program
Barrehag et al., 2012	Product-centric KPIs, in order to clarify company profitability (German Silicon Valley Accelerator) Absorption of early investment (Springboard) No. company failures after program graduation (Startupbootcamp) No. companies who received an early investment (seed investment, angel investment, etc.) (Startupbootcamp) Accuracy of forecasted results (betaFACTORY)
Chang, 2013	No. graduate ventures to raise additional capital No. graduate ventures to exit successfully No. graduate ventures still operating after 3 to 5 years No. additional funding rounds after graduation / venture
Guidelines - Metrics & Milestones, 2013	Long-term impact: Revenue No. jobs created Social impact Shareholder return No. successful exits
Dempwolf et al., 2014	Long-term Sources of funding /no. funding sources Performance distribution Internal rate of return Network metrics (partnerships, etc.) Sales or revenue / venture No. employees Rate of return to investors Stock prices (if applicable)

Wise & Valliere, 2014	% of successful exits, post-graduation % of unsuccessful exits, post-graduation
DEEPCenter, 2015	Total follow-on investments Average amount of funding per venture Investment over venture life span Job creation Survival rate No. companies still active No. companies acquired
Global Best Practices Report on Incubation and Acceleration, 2015	% of ventures acquiring funding 6 months from graduating % of survival rate, post-graduation
Bliemel et al., 2016	Follow-on funding Exits (& multiples) Reputation Global (niche) impact Ecosystem development Growing and sustainable startups (startups' revenues, positive cash-flow and jobs)
Knott & Haguewood, 2016	Survival rate % of deal flow for venture firms % of investment failure rate % of investment success Investment period Prospect acceptance Overall returns
Rostarova & Rentkova, 2016	Investment value / year Return on investment / year Payback time Internal rate of return

Source: Authors' own contribution

This set of metrics also takes into consideration the investment absorption rate of the graduating ventures (Barrehag, et al., 2012), shareholder return (Guidelines – Metrics & Milestones, 2013), investment failure rate and investment success rate (Knott & Haguewood, 2016). The post-graduation investment relevant metrics show, on the one hand, the extent to which the assisted ventures gained exposure to achieve independently subsequent funding. On the other hand, they can be used to measure the SAO performance with respect to building a relevant and synergistic investment ecosystem for its alumni ventures.

The last indicators set refers to impact relevant metrics and evaluate aspects such as social impact, reputation of both graduated ventures and that of the accelerator, development of the ecosystem around the SAO, network synergies (Guidelines – Metrics & Milestones, 2013; Dempwolf et al., 2014; Bliemel et al., 2016). As it can be noticed, they evaluate qualitative aspects of the SAO. Even though this metrics set might be more difficult to assess, it has potentially a high impact on the perception of the SAO and its performance.

### **Conclusions**

The topic of SAOs impact on new venture performance remains a debated subject within both the academic and the business community as more and more such organizations are founded and there is, up to this point, to the knowledge of the authors, no unanimously accepted benchmark or best practices guide in this area. This up-to-date literature review concerning the way SAOs evaluate their programs' performance brings the research in this new field a step closer to better understanding how and if the assistance and support process of these organizations has a real, measurable impact on new ventures.

The main findings of this paper refer to the classification of sets of metrics used and reported by SAOs in evaluating the performance of their programs. The metrics identified during the literature review were grouped into metrics used during and after the SAO program. Both metrics categories take into consideration investment relevant indicators. Within the metrics category used during the SAO program there are also sets of indicators evaluating cohort and business relevant aspects, whereas within the metrics category used after the end of the SAO program are considered indicators evaluating venture survival and impact relevant aspects.

The main contribution of this paper is the setting of an up-to-date measuring basis of new venture performance within SAOs. Further empirical research is needed to analyze and evaluate the extent to which these metrics provide a relevant image of the SAOs' program performance, and therefore of the performance of the new ventures.

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## THE IMPORTANCE OF FISCAL AND BUDGETARY RESPONSIBILITY IN ROMANIA AND IN EUROPE

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### Abstract

There has been an increasing interest in the need for a culture of “fiscal and budgetary responsibility” over the last years, especially emphasised by the effects of the world financial and economic crisis. At the European Union level, the intention is to implement a solid and sustainable fiscal and budgetary policy. Given the importance of this topic, the study considered an analysis of the fiscal and budgetary strategy in Romania in the period 2016 - 2018, the public debt and the sustainability of the public debt in Romania, and a case study on the gap between the deficit and the increases of public debt, for the purpose of which data from 39 countries, European Union member states and non-member states, from the period 1970 – 2015, were used.

**Keywords:** sustainability, fiscal and budgetary strategy, public debt.

**JEL classification:** G3, G38, H6.

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### Introduction

Ensuring fiscal and budgetary discipline, and the transparency and sustainability of public finances is one of the main objectives that a European Union member state should respect. In Romania, these provisions were re-analysed in 2015, when the Law of fiscal and budgetary responsibility (LFBR) 69/2010 was republished.

According to Article 4 paragraph (3) of the Law of fiscal and budgetary responsibility 69/2010, republished, “the Government has the obligation to conduct the fiscal and budgetary policy in a prudent way and to administer the budgetary resources and obligations, as well as the fiscal risks in such a way as to ensure the sustainability of the fiscal position in the medium and long term.

In addition, according to the laws in force, the Government shall calculate and manage very carefully the *impact on economic development and on future generations*, this being the equity principle which lays at the basis of a successful fiscal and budgetary policy.

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### **1. Fiscal sustainability**

Blanchard et al. (1990) asserted that “Sustainability is basically about good housekeeping”. At the European Union level, there has been an increasing interest in fiscal sustainability over the last years, especially emphasised by the effect of the world financial and economic crisis. At the same time, the need to implement a successful monetary and economic union determined the need to introduce a regulated framework on sustainability (Treaty on Stability, Coordination and Governance in the Economic and Monetary Union).

At present, we can see an alarming distance between the monetary union, for which implementation efforts are made, and the fiscal provisions. On this line, we can see that the European Union is trying with different regulations, treaties and reports to implement also a fiscal union: the implementation of the new Customs Code, which tries to harmonise the legislation referring to free zones, bonded warehouses, temporary admission and final use etc., the additional facilitations (centralised customs for simplified procedures and normal procedures, self-imposition and self-control etc.), conventions for avoiding double imposition on some fees and taxes etc.

The fiscal system and budgetary constraints have significant implication for investments in bank deposits and other forms of savings, given the cyclical changes and future predictions under the influence of certain factors of influence (Tufan, Hamarat, Cristea & Giurcă-Vasilescu, 2007); investments in life insurance, i.e. the savings component (Cristea, Dracea & Tomescu, 2009); or voluntary pension funds’ investments under the influence of public debt (Cristea & Siminica, 2012; Cristea, Siminica & Dracea, 2011).

In January 2016, the European Commission published the “Fiscal Sustainability Report”, which analyses the fiscal sustainability at the European Union level. In the short term, Romania does not show a worrying risk related to its fiscal sustainability. But in the medium term, a gloomy scenario is envisaged, with the public debt reaching over 60% of the GDP in 2026. However the most serious problems are estimated in the long term, the risk being generated especially by “the unfavourable initial budgetary position, compounded by age-related public spending, notably for healthcare and long-term care”. Nevertheless, we cannot say that there is an efficient fiscal sustainability policy in Romania. The frequent changes brought to the fiscal framework lead to some sort of instability that can create serious problems in the future.

Cristea and Dracea (2010) outlined that “the soft budget constraints, still prevalent in many transition countries, have encouraged private sector actors to make counterproductive investments”.

Results of the research of Acatrinei, Gorun and Marcu (2013, pp. 137) ” The findings will also help us derive conclusions about investors’ keenness to move capital to the Eastern Europe or whether the Romanian capital market is decoupled from the European capital markets.” However, other economic implications are possible in several branches of the economy: mass distribution- explained by the fact that „modern distribution had a real success nowadays, perceived mainly by the fortune that the founders of the modern supermarkets managed to gain” (Stancu and Meghisan, 2012, pp.503) and mass consumption- with a distinction that „must be drawn between the post-purchase feelings and the post-usage feelings” (Girboveanu et al., 2008, pp. 901). The globalization „seems to monopolize the food that we are consuming” (Meghisan F., Meghisan G.-M., 2012, pp. 398) and the services we are taking- e.g. telecommunications services, with a strategy of growth based on „the protection of the current market share and the maintenance of the incomes at the current levels” (Meghisan., 2012, pp.148).

## **2. The fiscal and budgetary strategy in Romania**

For the period 2016 - 2018, the objectives set by Romania within its Fiscal and Budgetary Strategy are to increase the confidence of investors in the Romanian economy, to “create a predictable fiscal policy, fiscal simplification”, to continue the reform of public investment, to diversify and develop tools for the management of public debt, to stimulate consumption – at the same time, to ensure social protection for the categories of population with a low income.

The draft budget for 2016 and the perspective 2017 - 2018 is based on a new vision, a strong commitment in favour of change which should stimulate growth, the removal of disparities and social tensions, the creation of new jobs for ensuring *sustainable development*”, according to the Fiscal and Budgetary Strategy 2016 - 2018.

In the area of the tax on profit, both at national and European level, there is a fight against “financial engineering” used to avoid paying the tax, through the implementation of measures that prevent “the transfer of profits and the erosion of the tax basis”.

With the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union and the Convergence Programme, Romania assumes a structural deficit of 1% of the GDP.

In order to encourage growth and the development of efficient management of financial resources, a *Strategic Plan of the Public Finances Ministry* was established, with the following priorities: “simplification of fiscal matters and creation of predictability in a stimulating fiscal framework for the development of the private and public economic environment; improving the management of governmental public debt”.

In order to be able to analyse the fiscal and budgetary responsibility and the Fiscal and Budgetary Strategy 2016 – 2018, it is necessary to study the public debt, one of the important elements at the basis of the Law 69/2010 and of the regularly established strategies.

According to the Maastricht Treaty, the ratio of the governmental public debt and the Gross Domestic Product must not exceed 60% in order to be under the alert threshold. Nevertheless, the existence of an increase rhythm of the governmental public debt which is superior to the growth rhythm of the economy shows signs of worry, as in this situation the risk of solvability increases.

Considering the current situation, the governmental public debt will increase being determined by the need to finance the budgetary deficit and some particular elements which according to the European Union methodology are not components of the public debt (loans from the available of the State Treasury).

In order to keep the governmental public debt at a sustainable level it is absolutely necessary to respect a fiscal consolidation policy and to keep the budgetary deficit as low as possible.

Marcu and Meghişan (2011, pp. 218) asserted that “The process of managing public debt portfolio is a priority for every government in order to reduce medium and long term exposure to risks. The main objective in process of public debt management is represented by providing for the governmental financing needs in terms of minimizing long term costs and limiting the risks involved.”

## **3. Results of the Research**

In order to carry out this analysis, first a database was developed. Consequently, the following indicators were extracted: the budgetary deficit in relation to GDP, the public

debt in relation to GDP, the actual annual growth, the annual inflation rate, the annual average interest for government securities with 10 year maturity. These indicators were extracted for 39 countries, EU member states and non-member states, and the source is the OECD statistical database. The data were extracted for the period 1970 - 2015. It must be mentioned that the panel set obtained in this way is not a balanced one, as not all statistical data are available for all economies in the period indicated above.

We use a series of descriptive statistics for the data set that was developed. Now, it is also a good time to clarify the abbreviations that will be used hereafter. So, they are: *location - country, loc - country numerical index, time - year of observation, gdebt - governmental debt in relation to GDP, def - budgetary deficit in relation to GDP, gpdg - actual annual growth, infl - annual inflation rate, ir - interest for government securities, target - the target/optimal level of budgetary deficit, gap - difference between the target and the observed deficit.*

In order to test the connection between the theoretical level of the budgetary deficit and the observed deficit, a panel linear regression, with fixed effects, will run over the developed set of data (table no. 1). Therefore, the following equation will be estimated:

$$def_{it} = \alpha + \beta * target_{it} + \epsilon \tag{1}$$

where:

$def_{it}$  - is the observed budgetary deficit

$\alpha$  - is the constant term

$\beta$  - is the parameter vector

$target_{it}$  - is the optimal value for the budgetary deficit

$\epsilon$  - is the estimation error

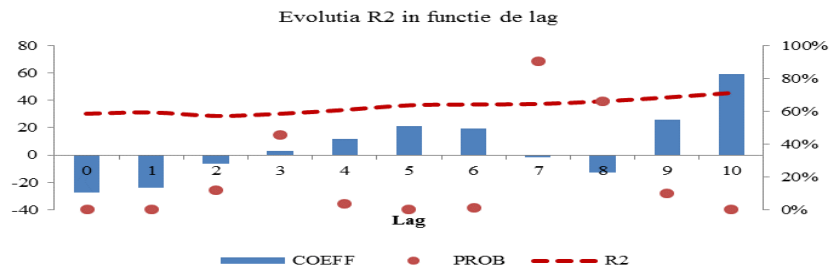
**Table no. 1: Panel linear regression**

Dependent Variable: DEF				
Method: Panel Least Squares				
Date: 09/17/16 Time: 16:48				
Sample (adjusted): 1995 2015				
Cross-sections included: 31				
Total panel (unbalanced) observations: 538				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.106062	0.134949	-15.60638	0.0000
TARGET	-27.65840	3.802557	-7.273630	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.583626	Mean dependent var	-2.293793	
Adjusted R-squared	0.558117	S.D. dependent var	4.621832	
S.E. of regression	3.072331	Akaike info criterion	5.140387	
Sum squared resid	4776.244	Schwarz criterion	5.395427	
Log likelihood	-1350.764	F-statistic	22.87912	
Durbin-Watson stat	0.769795	Prob(F-statistic)	0.000000	

Source: OECD statistical data, author's own calculations



The estimation gave the results above. The independent variable is statistically significant with a threshold of 99%. At the same time,  $R^2$  is 58%, which, for panel regressions, shows a very good explanation of dependent variables in relation with the regressors (figure no. 1). Another way to test the correlation could have been to calculate this indicator based on co-variation. Nevertheless, this aspect would not have taken into account the panel structure of the data set. At the same time, it is somehow counterintuitive to think that the government authority will have the level of budgetary deficit in line with its optimal value. Therefore, a lag based approach would be more appropriate, thinking that there will always be a gap between what is desired and what is real



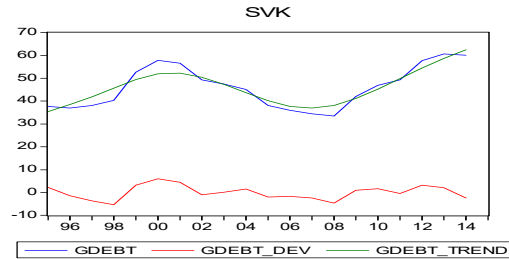
**Figure no. 1: Evolution of  $R^2$  in relation to lag**  
*Source: OECD statistical data, author's own calculations*

Therefore, 10 additional regressions were run, with each one increasing the lag of the optimal deficit by a year. So, in the figure above, we can see 3 key values: the coefficient, the probability associated with the t test, and square r. It can be noticed that as the lag increases, the  $R^2$  increases too. But this aspect should not be interpreted as such because the application of lags reduces the observation sample, with positive effects on errors. After the 6<sup>th</sup> lag, the number of observations decreases under 350, and the solidness of the model can be questioned. However, the lags 4, 5 and 6 are interesting. They all pass the significance test and  $R^2$  reaches its maximum in lag 5. The positive sign of the coefficient shows a correlation on the same line between the dependent variable and the independent one. All these aspects are in line with the economic rationale and expectations. As the government terms of office are of 4, 5 years and the objectives are assumed for similar periods, we can expect that the deficit optimum to be reached towards the end of term. Considering what has been presented so far, we can conclude that this optimal deficit, determined by a simple determinist formula has solid roots in practice.

The next phase attempted to emphasise the impact of the gap between the observed deficit and the optimal one. For this purpose, a first step was to develop a gap variable, defined as difference between the optimal deficit and the observed one. Considering that in the set of data, the deficit will appear with -, and the surplus with +, this gap can be interpreted as follows: the bigger its value, the further from the "target" value the budgetary policy is. In order to observe a relationship between the public debt and the budgetary deficit, the first step was to transform the share of the public debt in the GDP. Historically, this indicator had an increasing trend for all economies. Therefore, in order to avoid problems connected with non-stationary and, at the same time, to amplify the periods when the public debt "is out of control" the series was put to a Hodrick-Prescott filter, keeping only the cyclical component (deviation from trend).

In figure no. 2 we can see the GDEBT variable (public debt in relation to GDP), out of which the trend components and its deviation from the trend were extracted.

We must mention that the value  $\lambda$  used for this exercise was the standard of 6.25 (Ravn & Uhlig 2002), specific to annual frequency series. Therefore, the series was transformed at panel level, the observation data were restricted between 1996 and 2015, and the countries with less than 10 observations were eliminated.



**Figure no. 2: GDEBT variable**

Source: OECD statistical data, author's own calculations

These eliminations were made in order to consolidate the structure of the panel with a view to maximise statistical accuracy. The deviation of the public debt from the trend was explained separately, in relation to various variables derived from the gap between the optimal deficit and the actual deficit. Annual increases were tried, deviation from the trend, averages for 2, 3, 4, 5 years. The result below is the one related to the regression with the highest  $R^2$  (table no. 2).

**Table no 2: Linear regression – restricted observations between 1996 and 2015**

Dependent Variable: GDEBT_DEV				
Method: Panel Least Squares				
Date: 09/18/16 Time: 00:48				
Sample (adjusted): 1996 2015				
Cross-sections included: 30				
Total panel (unbalanced) observations: 498				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.104522	0.209166	-5.280609	0.0000
GAP_AVG2	0.484613	0.056720	8.543939	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.137945	Mean dependent var	0.012250	
Adjusted R-squared	0.082567	S.D. dependent var	3.804530	
S.E. of regression	3.644083	Akaike info criterion	5.484314	
Sum squared resid	6201.451	Schwarz criterion	5.746419	
Log likelihood	-1334.594	F-statistic	2.490965	
Durbin-Watson stat	1.836628	Prob(F-statistic)	0.000032	

Source: OECD statistical data, author's own calculations

The coefficient is statistically significant, and  $R^2$  has a decent value for a panel data set. The positive sign of the coefficient shows a direct relation between the deficit gap and abrupt increases in the public debt. In other words, if the government authority does not succeed in stabilising the budgetary deficit, then we can expect eruptions of the public debt.

### Conclusions

The importance of fiscal and budgetary discipline, of transparency and sustainability of public finances is emphasised especially by the effects of the world financial and economic crisis. At present, there is an alarming distance between the monetary union, for which implementation efforts are made, and the fiscal provisions.

The objectives set by Romania within its Fiscal and Budgetary Strategy 2016 - 2018 are to increase the confidence of investors in the economy and for that purpose to “create a predictable fiscal policy, fiscal simplification”, trying to attain with the actions and measures adopted the objectives set at the European Union level on the stability of public finances and the increase of financial stability.

For a more thorough study, we attempted to develop an indicator for the degree of fiscal sustainability or vulnerability starting from the dynamic equation of the public debt presented by Stoian (2013). To carry out this analysis, a database was developed for 39 countries, EU member states and non-members, the source being the OECD statistical database. Therefore, the following indicators were extracted: the budgetary deficit in relation to GDP, the public debt in relation to GDP, the actual annual growth, the annual inflation rate, the annual average interest for government securities with 10 year maturity.

Therefore, in the first phase, the purpose was to test the connection between the theoretical level of the budgetary deficit and the observed deficit by running a panel linear regression, with fixed effects. A lag based approach was also envisaged, thinking there will always be a gap between what is desired and what is real. Therefore, 10 additional regressions were run, with each one increasing the lag of the optimal deficit by a year, seeing how as the lag increases so  $R^2$  does. But this aspect should not be interpreted as such because the application of lags reduces the observation sample, with positive effects on errors.

Considering what has been presented so far, we can conclude that this optimal deficit, determined by a simple determinist formula has solid roots in practice, as the government terms of office are of 4, 5 years and the objectives are assumed for similar periods, we can expect that the deficit optimum to be reached towards the end of term. The next phase aimed to emphasise the impact of the gap between the observed deficit and the optimal one. Considering the analysis that has been carried out, we can see a direct relationship between the deficit gap and abrupt increases of the public debt. In other words, if the government authority does not succeed in stabilising the budgetary deficit, then we can expect eruptions of the public debt.

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## **THE COUNSELING AND CAREER GUIDANCE CENTERS ROLE FOR EDUCATION AND PROFESSIONAL DECISIONS**

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### **Abstract**

The hiring opportunities after going through the license cycle for a graduate in 2016 Romania are very low. This fact is due to malfunctions that appear between the education and training providers (superior learning institutions), employers and the potential employee. The existence of the Counseling and Career Guidance Centers (CCGC) substitutes the mediator role and binder between these entities, which most of the time work independently, although the functionality of the socio-economic system they define needs interaction, so dynamic and adaptability. The research targeted the evaluation of students' perception about the CCGC's role in drafting the career way and the services' quality offered by these. The results of the study show that these counseling forms are at start, they are in full development and consolidation progress and they are fundamental connected to the educational management at each institution's level, and to the public policies and educational management at central public administration's level. Further developments of the research will study the students' expectations from CCGC and the counseling needs and the ways of increase their role in career design and strengthening the link between the education providers and the labor market.

**Key words:** educational management, public policies, career way, services, performance

**JEL Classification:** I23, I28, M12

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### **Introduction**

The permanent changes of the social and economic environment in the Romanian reality impose reorientation for the universities towards viable specializations in the new conditions (Grigorescu, 2015). These orientations must be projected over the educational consumer for reducing its introduction and adaptability in this environment, which is dynamic, represents a trajectory with multiple flows (Grigorescu, 2008; Chițescu et al.,

2015). Therefore, since 2005 by the Environment Order number 3235 published at 10<sup>th</sup> of February 2005 is introduced, at national level, in the superior learning system the Counseling and Career Guidance Centers (CCGC) “to support the student to take adequate decisions in structuring his own forming way” (MO 3235/2005, art.4). This comes in addition to Cooperation and Economic Development Organization (CEDO) for the European states to “adopt and develop assurance mechanisms for the counseling and orientation services for students in sketching the reforms from the learning system” considering that “career counseling and orientation represent key factors that can influence the transition from learning to work” (CEDO, 2004). The Romanian National Education Law 1/2011 defines, in article 351, the activity types that take place through this centers, as information regarding the job market, choosing and developing the career through education, learning “abilities to choose when it comes to education, forming, work”, by offering some “opportunities to experiment different roles in the community life or in the professional life, instrument for planning the carrier” (1/2011, art. 351). In the same time appears the project “Graduates and Labor Market” (POSDRU/60/2.2/S/41750), financed by the Human Resources Development Sectorial Operational Program 2007-2013 on the priority axe two, “Correlation of all Life Learning with Labor Market” (2011-2013) whose objectives consolidate and individualizes the role of the counseling and orientation centers in universities. The European Commission, World Bank and CEDO define the career consolidation like this: *Career consolidation refers to the services and activities that intent to assist the person, of any age and in any moment of his life, to make chooses in educational, forming and working plan so he can develop his own career. These services can be organized in schools, universities, forming institutions, hiring public services, working place, volunteer and community activities sector and in the private one. The activities can take place with persons or groups, face to face or at distance (like the ones on phone or the ones on web). These services offer data regarding the career (printed, online or others) evaluation and auto evaluation instruments, counseling interviews, education programs for career development (to help the person to have a better self-image, to be conscious of the opportunities he can benefit and to develop the career management skills), testing programs (to exercise his options before choosing them), job and transition services searching programs”* (CEDO, 2004).

Romanian universities introduce among their structures these counseling and job orientation centers with the purpose of developing these kinds of functional relations in the economic and educational environment. Their activities portfolio starts from the main action domains mentioned by law and which regard educational, psychological and professional counseling. This is different from an institution to another through the action and treatment way (Grigorescu, 2008a). Their importance is continuously growing even if it is low in percentages. (according to ANOSR) in the university year 2012-2013 1.8% were psychological counseled, with 0.1% more than in the university year 2011-2012. Of career, counseling benefited in the university year 2011-2012 a percent of 8.6% from the students, a percent that rose to 10.61% in the year 2012-2013.

The services offered by these centers are free (with the University’s support), but most of the activities are financial supported by accessing and developing national or international financing projects (Grigorescu, 2016).

**Methodology**

The research we realized represents the involvement grade of the CCOC in the academic life from the students' point of view. This was made with the quality research method having as instrument the questionnaire and it followed all the steps of a sociologic research. The questionnaire contained 13 questions, structured on three main themes, whose answer can generate an ensemble view over the involvement way of the CCGC in crossing the educational and professional path. The respondents were students from the university centers in the center and east of Romania and were 600 persons.

The questionnaires were sent directly, through persons that made part from the teaching corporation, from the Students' League or personal, for a fast dissemination and to collect the data easier and in a more secure way. From the 600 questionnaires sent, a number a 498 persons answered, their repartition on different criteria being as follows:

1. Regarding the respondents' sex – 284 female persons – 57.02% and 214 males – 42.98%
2. Regarding the age – 448 respondents under 26 years – 89.95%, 50 respondents over 26 years – 10.05%
3. 316 students from terminal year (III and IV) – 63.45%, 38 students from the second year – 7.63% and 144 students from the first year – 28.91% answered.

The researches' hypotheses are:

**H1** - CCGC are efficient mechanisms in managing the students and graduates' educational and professional path.

**H2** –CCGC have an important role in establishing the universities' educational offer and of the bounds between these and economic environment.

**H3** –CCGC offer quality services, known and accessed by most of the students.

The research realized with the help of a **research matrix**, which followed the institutional impact, choosing the professional career and educational intervention.

**Table no. 1: Research matrix**

<i>a-Institutional impact</i>	<i>b-Choosing professional career</i>	<i>c-Educational intervention</i>
1-Are you informed that inside the universe a CCGC exists and works?	1-Do you consider that CCGC represents the viable solution for the relation human – adequate career profile?	1-Do you consider that the CCGC's role in counseling the decision makers regarding the study domain and specializations choosing at the proposed license level in the University's portfolio is important?
2-Do you know the attributes and responsibilities of this center?	2-Do you consider that CCGC represents the efficient organism in counseling the students in order to explore career plans that are alternatives to the chosen academic route?	2-Does CCGC help to establishing the professional and transversal skills associated to your university's specializations?
3-Is there a visible way	3-Does CCGC from your	3-Do you consider



(own site) through which CCGC offers its services and promotes its actions and activities?	university organize individual or group activities that target the career management?	favorable the CCGC intervention in proposing optional courses and specialization master and doctorate programs?
4- Are this institutional organism's services interesting for you?	4-Does CCGC from your university assure permanent connection with the local and regional economic environment?	4-Do you consider that CCGC is involved in reducing the university failure?
	5-Does CCGC propose and assure practical internships as volunteer or not, needed to knowing and familiarizing/developing students' abilities with activities of different domains from the labor market?	

Source: authors' conception

The questions were opened leaving the possibility to the respondents to motivate their answer, if they wanted to. In the most of the respondents there were no explanations regarding their affirmations and their perception. This aspect limited our possibility to do a deeper analysis.

**Research results**

**Question a.1.** Most respondents heard about the existence of a Counseling and Career Guidance Center. The percentage is 76.97%, and this owns to the fact that a big number of them are in finishing year (86.71%) and the two or three academic years reflect positive in the information quantity they accumulated comparing to their schoolmates in the inferior years.

**Question a.2.** No. A percent of 83.24% of respondents do not know exactly the powers and responsibilities of this institutional organism, limiting these attributes by generalization, to the two big attributes that are in its' name and those are counseling and career orientation.

**Question a.3.** CCGC has a legislative and structural information page on all universities' pages from where the respondents were chosen. At this question, the answers were differenced on universities marking for positive answer in a percentage interval of 2-53.35. The interviewed ones accused the lack of information as for example: the job place, full or part time, the region, hiring opportunities personalized on study domain, opportunities to develop an own business or the lack of their update and, the dissemination way of all these kind of information through the social networks, messages or electronic mail.

**Question a.4.** The interest for this center's services is low – 34%. This reflects the answer to questions 2 and 3 through which is certificated the lack of information regarding the responsibilities and attributes of CCGC, therefore of the services these offer. Still, the ones that answered affirmative to this question limit the vast range of services towards what means hiring type after finishing the studies or assuring some practice/hiring stages in the school holidays.

**Question b.1.** Yes. The affirmative answer was given by 76.35% of respondents. The viability of the human-adequate career profile relation is formal known by a very big percent, but the comments that follow this answer underline the fact that choosing the educational and professional route, from choosing the license program to visiting a working place, remains an individual or family option.

The same perception influences the answer at **question b.2** where, even if 72.23% responded that this center is efficient in counseling students so they can explore career plans alternative to the chosen academic route, the respondents consider this fact is due to some personal choices influenced by, in a strict moment, a social or economic event.

**Question b.3.** 97.54% respondents think that actions are accomplished. From these, a percentage of 54.71% knows and mentions at least 4 activities organized by the CCGC in their universities, activities focused on the development of communication abilities, management and correct information procession, stress control, establishing the career development plan or activities that regard the efficient approaching way of all the steps needed for obtaining a working place meaning the CV's wording, interview preparation, wording hiring papers, etc.. 13.72% of the interviewed ones identify themselves with students that participate at different projects of the universities as for example "Counseled student – excellent future employee!" ([www.studentul-consiliat.unatc.ro](http://www.studentul-consiliat.unatc.ro)), with the program *Work and travel USA* (<https://caep.ro/work-and-travel/jobs>).

**Question b.4.** The answer yes in proportion of 67.87% at this question is motivated through answers at **question b.5**, meaning the CCGC involvement in accomplishing internships, strategies/practice programs (especially on summer holiday) and volunteer actions. These are completed by actions as student meetings (on some categories – women, persons with disabilities persons from rural society or on some themes - workshops), job fairs developed in association with Local Hiring Agencies, employers – firms, research centers, etc., with role in facilitating the interaction with the job market and with its representatives. Although these actions are recognized by the asked ones many expressed, through their comments, their complaints regarding the number of working places for the ones with superior studies, the lack of part time jobs, the selection criteria, aspects that are less in CCGC's powers.

**Question c.1.** 97.24% consider as important the CCGC's role in choosing the specialization portfolio of the University, arguing this through the fact that CCGC, through its meaning, knows the best the labor market, the regional one or the national one, it knows the students' insertion level in it and so the hiring opportunities among or at the end of the educational track. Even if the role of CCGC is known, it is clearly mentioned its low importance in choosing the disciplines that define de specialization, by the universities. The answers are in the ANOSR study implementation "*The Bologna Process Insertion in Romania from the students' perspective 2013*" which shows that "77% of the universities don't answer or answer in small measure to the need of competences" (ANOSR, 2014, 9) needed finding an optimum job, regarding on the things studied in the license cycle or in the masters or PhD. From this question can be connected and question c.3, at which a same high percentage of respondents (91.32%) consider timely the intervention/ proposal of some optional courses or specializations by the CCGC, underlining the importance of the applicative practice side easier to realize in the optional courses. 17.84% of these think that the presence of a specialization module/course like this – the course in Diploma Supplement (Chițescu, 2016). represents an advantage in the employer's eyes.

**Question c.2.** Is the only one that raised problems because the students knew what professional and transversal competences associated to the courses inside the chosen

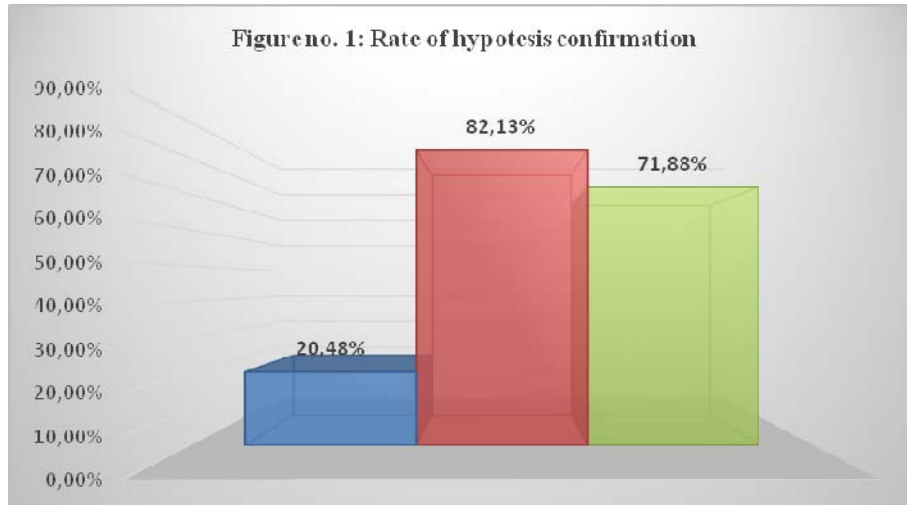
license programs mean? These were confronted with the gathered specialization notions by participating to courses. We considered that the answers are inconclusive even if 86.09% responded positively.

The answers to this question give us the right to suggest an involvement of the CCGC in establishing the professional and transversals components for each course helping the each structure to reach them. The transversal components represent, in the light of a study made by Qualification National Authority, important attributes (in the expense of specific skills) in finding a job from both parts' perspective. The professors' counseling in this represents the guarantee of their knowledge by the students.

**Question c.4.**No, a 75.40% answer. The interviewed ones think that the school abandon reduction is adjusted by the socio-economic conditions, not through the intervention of some institutional organisms like CCGC.

The study's results interpretation confirm, partial, the first hypothesis of the research, from the research resulting that even if the services offered by the CCGC are known and qualitative, they are a little accessed, while the other two are checked totally even if their activities confuse many times with the activities specific to the students' activities.

The students don't know they can access these centers or what is their effectiveness. The few functions known are those that derive from the name centers - counseling and career guidance without knowing the principles of their functioning and role, the organized activities, the actions of communicational development, the students plans for career development or at least the ways for starting writing the resume, preparing for interviews, drafting employment documents. The extent to which this hypothesis was confirmed is very small compared to the main functions of these centers, only 20.48%. The other two hypotheses are checked in a large percentage even if their activities are often confuse with the specific activities of student organizations. Hypothesis 3 was confirmed in a high rate in relation to assumption 1. Although the CCGC roles are confuse, students aware of actions in the field of career guidance and career paths and they intuit the importance of these centers and their role as interface with the labor market.



*Source: authors' computation*

From this study's analysis, with a clear determined socio-economic context, and which confirms in different proportions the stated hypothesis, we can detach characteristics of the CCGC's mission:

- Youth are helped to discover their intellectual resources, capacities, talents, abilities in the purpose of showing the personal capacities which can be valued and explored
- The receive by the undecided ones over their professional future of some credible, exact and directly usable information, that can give them the liberty to choose
- To combine the labor world with the educative process, the integration research, acceptance, flexibility and realism of the future employees
- To fight the stereotypes regarding some jobs, to reduce the social inequality and to support the minority groups – gender, sex, ethnicity, handicap

We, also, identified a row of factors that influence decisively the working of these CCGC, among which we remind:

- The politics at macro level of the main social and economic domains
- Programs conducted by the Govern on long and environment term
- Political major changes with influences in the social and economic life
- The role and status of a human – in family, in society – the relations he develops
- A comprehensive and oriented legislative frame
- The relation between the central structures and the ones that apply effectively these politics

### **Conclusions**

The importance of the conducted study is that we have an image about the stakeholders' perception of the role of CCGC. The existence of the CCGC represents a certitude for all the participants at the academic and university life whose students answered to our study. The importance of their involvement represents an unknown for many of the students from many reasons. From these reasons we can observe: the lack of an action mode (personal or professional) guided by the exterior mechanism, to their personal familial environment, lack of education in this way, disengagement in students' life beyond the participation in educational activity – courses, seminars, practice internships, like of an aggressive publicity of these centers and the limitation of their action, and these motives are always followed by the socio-economic environment that is always changing.

The guarantee of these centers' visibility, implicit the increase of their involvement, is given, firstly, by the conjugated action of the universities and economic environment in changing their mentality regarding the optimal educational and professional path choosing and completion, by valuing the practical abilities these students have or can get. The presence of the prevailing specializations, without connection with the economic market demands, remains a sensible point of the universities, in their rush towards the student, and the CCGC influence, although important; depend on the universities' existence, so it remains limited, but not without value in permanent growth.

At the same time, the study high light that cannot be not identify a general policy of the counseling services for career, because each institution develops particular intervention strategies, so they can be perfectly functional according to community's specific, social needs' specific or economic development, local, and total ineffective in an external context. Limits of the study come from the less appetite of the subjects to talk about and mistrust to show the activity is at the beginning and there is much to be done.

The study should continue with an analysis of the connection between the students and the center (services suppliers) to find out the need of assistance and the way of best providing. A second target to be studied is the link with the labor market and assistance to easy integrate at first job.

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## **BEHAVIORAL ANTECEDENTS FOR ENHANCING GREEN CUSTOMER LOYALTY IN RETAIL**

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### **Abstract**

Sustainability is a pressing concern and a constant challenge for the contemporary society, being carefully monitored by individuals and diligently implemented by companies within their business strategies. Companies increasingly resort to highlighting the characteristics and advantages of sustainable and environmentally friendly products in an attempt to curry favour with green consumers who recycle products, prefer organic food or green products and visit and buy from retailers exhibiting environmental consciousness.

The empirical research conducted on a sample of 3,382 consumers of different ages reveals how the attitudes and values of green-oriented consumers as well as their proclivity for sustainable consumption and willingness to pay a premium price for environmentally friendly products represent antecedents for creating their loyalty to the retail stores that use green and environmental-oriented strategies. The research findings clearly reveal that consumers' positive attitude to environment protection will prompt them to immediately look for and prefer retailers offering such sustainable products. From a theoretical perspective, the paper contributes to broadening the understanding of behavioral antecedents that create green loyalty on an emerging market. From a practical perspective, the paper provides retailers with possible solutions when designing offers for their target segments.

**Keywords:** Green consumer, sustainable products, behavioral antecedents, green loyalty, green retailing

**JEL Classification:** Q01, F64, L81, M14, M31

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### **Introduction**

Preservation of resources, consumption sustainability, responsibility towards society and environment protection are a more and more frequent concern of modern organizations and a constant feature of the business environment. The interest in and the consistent implementation of these issues within their business activities and strategies does not automatically trigger consumers' preference for "green" or sustainable products, brands and services. The consumption of the "green" products, services, brands is encouraged by

“activating” the conative side of attitudes so that the individual makes a behavioral decision (Silva Braga Jr. et al., 2015).

In a society in which technological development and the fast emergence of innovations prevail the concern for the environment and social responsibility becomes the company’s main pillar/instrument in approaching the market. The fierce competition prompts companies to better differentiate their offers and position them by focusing on sustainable business practices designed to attract and better satisfy customers’ needs and desires and gain their loyalty. Variety of assortment and the services provided, the varied pricing policies and the sending of information about products and services, the relatively large number of competitors fighting hard for a unique “position” in the mind of customers as well as the image and awareness of each retailer can be better enhanced in this century of social media through specific actions governed by concern for the environment and sustainability.

An empirical research study on a sample of about 3,000 Romanian respondents was conducted to determine the behavioural antecedents that create customer loyalty—regardless of customers’ age and generation—towards the retail stores implementing an environmental protection-oriented sustainability strategy. The authors then emphasize the relevance of sustainability in retail and describe how retailers rely on environmentally friendly products to capture consumers’ attention and satisfy them. Afterwards, they set to operationalize the theoretical concepts and carry out the empirical research. Following the validation of the model by means of statistical tests and structural equation modeling, the authors put forward the research findings and some pertinent conclusions which, theoretically, help understand the role of green behavior and of a proactive and positive attitude towards environment protection in creating customer loyalty. From a management perspective, the paper provides some strategic recommendations which, when properly implemented by retailers, may contribute to the development of effective strategies for approaching emerging markets.

## **2. Literature review**

### **2.1. Sustainability in retail**

Sustainability represents the major concern of researchers (Kwok et al., 2016; Chankrajang, Muttarak, 2017) and of different contemporary organizations and is amply documented in the WCED report (1987) as the development that meets the needs of the present generations without compromising or jeopardizing the access of future generations to similar resources. In other words, sustainability promotes the concept that an individual or a company may use natural resources as part of their own processes but cannot exploit them to the full. As market competitiveness has increased, sustainability has become the necessary condition for a company to survive in a tumultuous and ever-changing competition environment (Martin, Shouten, 2012; Dabija, Băbuț, 2013).

Sustainability has become a major concern of the companies in the retail sector as well. The main reason thereof is the need to adapt company strategies to the needs of the modern society and suit the offers to the demands of consumers who increasingly embrace green values and visit stores and/or retail formats depending on the extent to which such stores/retail formats advertise and sell organic products made of natural fibres within environmentally harmless technological processes (Schmidt et al., 2012; Joshi, Rahman, 2015). Retailers are also concerned with marketing fair trade products (Pop, Dabija, 2014) manufactured in compliance with ethical principles (Dabija et al., 2016) and with a low



consumption of raw and other materials (Gershoff, 2011), which protect the environment (Joshi, Rahman, 2015) and are energy-saving (Euromonitor International, 2015) etc. For the modern consumer of the twenty-first century, a retailer's adopting and implementing a sustainability strategy and striving to protect the environment has increasingly become a good reason to revisit and recommend the retailer, leading to the creation of customer loyalty. Certainly, the implementation of a sustainability strategy calls for companies to use innovation and promote responsible consumption because the impact of their own actions on the environment has to be as low as possible.

## **2.2. Enhancing consumer loyalty by means of green products**

The individual's buying decision is influenced by the stimuli coming from the producer or the seller as well as by his or her past experience, own values and various contextual factors (Dabija, 2010; Joshi, Rahman, 2015). The synergy between all these factors enhances or suppresses the preference of a brand, product, store, retail format or company. An individual's values have a strong bearing on his or her beliefs which, in turn, are influenced by the social and cultural context in which s/he lives, his/her background, lifestyle or customs and traditions (Joshi, Rahman, 2015). Collins et al. (2007) show that collectivism-oriented people have a tendency towards sustainable behaviour, pay increased attention to and get actively involved in social responsibility campaigns of various organizations. Such individuals are a lot more concerned with their fellows, with the preservation of environment resources and with the extent to which future generations have access to living conditions similar to those enjoyed by today's generations. Their involvement in the decision to buy a product or to prefer a particular store is much more intense. Such people actually "choose" the producer or the retailer and remain loyal to it depending on the extent to which the organization's sustainability actions are in harmony with their precepts, values, beliefs and attitudes (Stern et al., 1999). The individual's care for the environment is also the result of his/her orientation towards universalism achieved by his/her communion with nature and the emphasis placed on the need for social justice (Schwartz, 1992). It is actually the wisdom of the human being that makes people maintain a lifestyle centered around strong values.

Consumers' preference for environmentally friendly products, brands or services made in compliance with sustainability principles is largely conditioned by the existence of sustainable consumption (reflected in two behaviour attitudes: desire to recycle products and avoid food waste) (Ferguson, 2014; Laroche et al., 2001), ecological consciousness, understood as the effort made to purchase non-polluting products (Pop, Dabija, 2013) and of a willingness-to-pay, that is, the individual's financial willingness to pay a premium price for the desired product (Batte et al., 2007; Tsakiridou et al., 2008; Aryal et al., 2009). This willingness-to-pay is dependent on people's socio-demographic characteristics (level of education, marital status, household size etc.) as well as their knowledge, values, experience, attitudes and behaviour. Informed people, who are concerned with environment protection, know the major negative effects of pollution. This motivates them to easier accept to pay a premium price hoping that in this way they will make a minimum contribution to the protection of the environment (Laroche et al., 2001).

An individual's decision to buy sustainable, green, environmentally friendly products is actually made depending on how much they harm or do not harm the environment, are "friendly" with it, can be recycled or reused and comply with the environment protection and resource preservation norms and requirements (Lee, 2009). It is often the case that the

attitude towards a company, brand, product or service may influence the desire to buy such products. The importance that each individual places on such environmentally friendly products is essential because the consumer also selects the company depending on its image in his/her mind. This image is created as a result of the company's involvement in social responsibility or environment protection campaigns (Laroche et al., 2001; Collins et al., 2007).

Once a positive and strong image of the environmentally friendly company that markets sustainable products is created in the individual's mind (Dabija, 2010), the company may expect the customer to show increased willingness to pay a higher price for such products and be aware of the environment protection issues faced by contemporary society when making a buying decision. Moreover, the consciousness of recycling or reusing products whenever possible as well as the habit of using environmentally friendly products are essential levers for generating customer's trust in, and satisfaction with the company's sustainable products and services, which is a prerequisite to gaining his/her loyalty (Larouche et al., 2001).

By means of sustainable products, which often have attractive packaging and special design (Silva Braga Junior et al., 2015), environmentally conscious retailers seek to offer customers novelty and added value so as to gain their trust, satisfy them and develop their loyalty. Therefore, retailers expect people to exhibit a favourable attitude to any new product or service contributing to environment protection and manufactured in compliance with the principles of sustainability. By his/her attachment to the environmentally friendly company and its products, the customer will convey his/her positive feelings and experience to his/her fellows, leading to an attitudinal state in favor of the provider (Garcia de los Salmones et al., 2005). By fostering loyal behaviour, the customer will also prefer the environmentally friendly product in the future, will repurchase, recommend and positively describe it through word-to-mouth communication to his/her friends and acquaintances while becoming rather "immune" to the competitors' marketing actions intended to capture his/her attention (Sierra et al., 2015).

### **3. Research methodology**

In order to determine the behavioral antecedents contributing to the creation of loyalty to the retail stores implementing sustainability and environment protection measures among Romanian consumers regardless of generation (baby boomers, X, Millennials and Z generations), the authors have carried out a survey-based empirical research study. The data were collected through face-to-face questionnaire administration. The questionnaire was operationalized for each individual construct (loyalty and its antecedents) according to the literature as respondents assessed the statements on a five-point Likert-scale. Loyalty was investigated in terms of the degree to which respondents from different generations (Baby Boomers, Gen Xers, Millennials and Z generation) are willing to recommend the store, patronize the store and make more purchases from the store that implements sustainability measures, preferring it over other less green stores (Nasir, Karakaya, 2014). Each loyalty antecedent was operationalized using several items: own environmental concern (Lastovicka et al., 1999), environmental impact of retailer's actions (Antil, 1984; Dabija et al., 2016), article use extension (Lastovicka et al., 1999; Haws et al., 2014).

The first behavioral antecedent assessed the extent to which the decision to buy a food or non-food product pays regard to environment protection or the own contribution to the reduction of resources consumption. Environmental impact of retailer's actions is about

measuring the degree to which respondents try to find out more information about the retailer that they patronize as well as the extent to which the green environmental standards are met when making and selling various products. The last antecedent contained the assessment of respondents' willingness to reuse the purchased electronic, household, clothing etc. items, make efforts not to throw out food, recycle products or use them for other purposes as a result of optimizing their own consumption or of their intention to achieve financial savings.

Respondents from Romania's administrative and territorial units were selected by operators by gender and age, according to the breakdown in the Statistical Yearbook (2014). They were approached in public places, in the proximity of stores or at their home. The collected data were sistematized and then analysed using statistical software to check their reliability, validity and internal consistency (Churchill, 1991). The four constructs exceed the minimum acceptable threshold levels. Cronbach  $\alpha$  ( $>0,7$ ) takes on values between 0.788 and 0.897 while the Kaiser-Meyer-Olkin criterion ( $>0,7$ ) takes on values greater than 0.742. Each construct shows a variance of over 50%, with eigenvalues greater than 2 for each of the four individual dimensions (Churchill, 1991; Dabija, 2013). The exploratory factor analysis conducted on loyalty antecedents (Walsh, Beatty, 2007) confirmed the stability of the three constructs, which were subjected to structural equation modeling analysis to identify their contribution to the enhancement of customer loyalty to retail stores. The AMOS-computed fit indices (Forza, Filippini, 1998; Ju et al., 2006) of the structural model exceed the minimum acceptable thresholds (Table 1), which enabled the validation of the model and the interpretation of results. Each respondent had to state his/her year of birth so that they could be categorized in one of the generations considered, according to the literature: Baby Boomers (1945-1964), Gen Xers (1965-1979), Millennials Y (1980-1994), Z (1995-2000) (Gurău, 2012; Doster, 2013; Young, 2015; Dabija et al., 2017).

With the exception of generation Z who either still are high school students or just started college, most members of the other generations hold university degrees (Millennials: 714 persons; Xers: 475 persons; Baby Boomers: 202 persons). In the case of Baby Boomers, the number of high school graduates is almost equal to those with vocational training (100 persons) but in the case of Millennials there are twice as many high school graduates (310 persons) as persons with vocational training (164 persons). It is possible that Millennials are a lot more likely than the other generations to find a well-paid job with only high school diploma. Almost 85% of respondents live in urban areas and only 15% of them come from rural areas.

#### **4. Research findings**

As Table no. 1 indicates, all dimensions considered (own environmental concern, article use extension, environmental impact of retailers actions) has a direct and positive influence on green consumer loyalty as all relationships are highly significant (\*\*\*\*). However, the findings reveal that the greatest influence in shaping green loyalty across all generations and retail formats is exerted by Green consumers propensity (0.542\*\*\*\*). Therefore, respondents keep a watchful eye on each and every detail and the environment protection activity of the producers of the articles they purchase. They get information about the characteristics of the goods purchased from their favourite stores (for example, raw materials, active substances etc.) because, to them, it is important that, not only the

purchased article but also its parts and subassemblies have an impact as low as possible on the environment.

**Table no. 1: Behavioral antecedents for enhancing green loyalty towards food and non-food retail stores**

Effects (all consumers)			Model fit		
Green reuse motivation → Green Loyalty	0,177****		$\chi^2$	df	$\chi^2/df$
Green consumers values → Green Loyalty	0,228****		1495,821	364	4,60
Green consumers propensity → Green Loyalty	0,542****		GFI	AGFI	NFI
****p<0.001	SRMR (≤ 0,08)	0,0328	0,952	0,937	0,952
	RMSEA (≤ 0,08)	0,052	CFI	TLI	
			0,956	0,949	

Loyalty is also determined by consumers’ own environmental concern (0.228\*\*\*\*). When making buying decisions, consumers follow their own beliefs and attitudes but, at the same time, they ponder seriously about the impact of their own actions on the environment. Therefore, consumers pay attention to the manner in which the planet’s resources are managed and how the environment is preserved and make efforts so that their activities and the purchased food and non-food products may not harm the environment in any possible way (Table no. 1).

The lowest and equally highly significant impact on building consumer loyalty (revisiting, recommending, increasing purchase frequency etc.) to food and non-food retail formats is exerted by consumers’ concern to have even a small contribution to product recycling and reuse (article use extension). As excessive soil and environmental pollution caused a lot of problems, many consumers think about using the products repeatedly and identifying new uses for the already purchased articles. Their concern for the purchased products is accounted for by the need to make significant financial savings. They choose, revisit and/or recommend the retail formats depending on the extent to which these stores make efforts to recover or reclaim old articles. Therefore, consumer loyalty may be generated by buy back programs which retailers may implement both in fashion retail and electronic and household appliances retail (Dabija et al., 2016).

**Conclusions**

The present research clearly suggests that consumers eagerly seek green products, organic food and products complying with and integrating principles of sustainability when they are mentally oriented towards, and have positive experiences concerning environment protection and preservation of natural resources. Therefore, consumers choose retail stores depending on the extent to which they are capable of offering sustainable products. On the other hand, retailers are able to attract consumers with a favourable attitude towards environmentally friendly products and satisfy them with well-conceived and carefully structured offers, thus gaining their loyalty and making them to recommend the retailer to other people in a positive way and revisit it. The research findings are also supported by other studies which show that a positive image ingrained in customers’ mind and the existence of behavioral antecedents (recycling, desire to have a minimum contribution to sustainability and/or environment protection, orientation towards healthy, green etc. food) enhance individuals’ affection for environmentally friendly products and retailers (Laroche et al., 2001; Collins et al., 2007). The result is that individuals will prefer, become loyal to

(Garcia de los Salmones et al., 2005) and buy from these retailers to the detriment of their competitors (Sierra et al., 2015).

Among the research limitations is the failure to consider retailers' marketing measures in the form of communication, customer service and store ambience, which may serve as important stimuli for capturing the attention of customers and drawing them to the store. At the same time, future research will have to examine more closely how behavior antecedents differ significantly between young persons, on the one hand, and adult and elderly people, on the other hand, since it is well known that young people are more willing to buy/use green products than their parents or grandparents (Young, 2015; Dabija et al., 2017).

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## MANIPULATING SOCIAL MONITORING DATA FOR TOURISM STRATEGIES

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### Abstract

Predictability is one of the most sought-after goals to be attained by entrepreneurs and tourism and hospitality industry is no exception. Service predictability is being pursued to streamline activities and minimize losses. However, life in the world we currently live in is far from being predictable. When predictability is low, there is a growing need for people and businesses to control the factors that may influence their affairs and lives. The enormous amounts of information available on Internet and, especially, on social media platforms, makes difficult understanding markets and people, hardening the business decisional processes. People leave traces of their activity and of their personality in the online environment. With the support of social monitoring applications, companies may analyze and understand users' behavior. As such, the current paper aims to discuss about the perspectives of manipulating online data for tourism development strategies. The results of the qualitative research based on a social monitoring experiment reveal that monitoring applications need to be used together in order to obtain relevant and complex information about users' behaviors and opinions.

**Keywords:** Data manipulation, Monitoring applications, Consumer behavior, Business, Tourism 2.0, Social Media

**JEL Classification:** L83, L86, M30

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### Introduction

The growing immersion in digital environments and dependence on digital devices imply that people's behaviors, communication, geographical location, and even physiological states can be easily recorded, producing large samples of digital footprints (Kosinski et al, 2016). Such footprints include web browsing logs, records of transactions from online and offline marketplaces, photos and videos, global positioning system location logs, media playlists, voice and video call logs, language used in Tweets or e-mails, and much more.

The Internet has evolved from a standard to send marketing information to one in which data sharing and dissemination of information has become a norm (O'Connor, 2010). There is, of course, another side. While personalized advertising might be viewed as beneficial to both users and advertisers, tipping the balance of power towards the industry might enable



manipulation of customers. Predictability of certain traits may even prove dangerous for individuals. It is already possible for a user's sexual orientation or religion to be exposed, compromising their safety - and not just in less liberal countries (Kosinski, 2013). In the industries of tourism and hospitality, the Internet has become an essential tool for users in their decision-making processes (Law, Leung and Buhalis, 2009), allowing them to search for information on products and services, compare and evaluate the alternatives, and finally make reservations online. Thus, the Internet promotes consumer uniqueness (Niininen, Buhalis and March, 2007), allowing individuals to select and customize their products and, therefore, their experiences.

### **1. Influencing customers through Tourism 2.0**

Nowadays, there is a tendency among individuals to share their experiences with other people through publishing their recommendations, opinions, photos, or videos (so called "user-generated content") about a tourist destination or a tourism service on the Internet (Buhalis and Law, 2008).

Web 2.0 technologies and applications can be considered as the tools of mass collaboration, since they empower Internet users to actively participate and simultaneously collaborate with other Internet users for producing, consuming and diffusing tourism related information and knowledge. In social media, tourists share not only knowledge, but also experiences (Munar and Jacobsen, 2014). López and Sicilia (2011) have confirmed a positive effect of social network credibility on user perceived influence. Similarly, Ayeh, Au and Law (2013) and Sabou, Nistoreanu and Vlad (2014) state that the perceptions of user-generated content credibility influences consumer behavior during the travel planning process. Specifically in tourism, Huang, Chou and Lin (2010) confirmed that the influence of social media on behavior is determined by the value of the content published in those media, focusing on accuracy, timeliness and objectivity. Gretzel and Yoo (2008) reported that women travelers rely more on reviews than men travelers and people aged 65 years or over are less likely to read other travelers' reviews, whilst younger travelers find reviews more important in deciding where to stay. McCarthy, Stock and Verma (2010) showed that the influence of User Generated Content varies with the type of travelling and argued that recommendations of friends and colleagues are less important to business travelers than they are to leisure travelers. (Del Chiappa et al., 2015). First-time visitors to a destination posted more information and photos online, as compared to those who had previously visited the site. (Simms, 2012). Web 2.0 tools, that brought the Tourism 2.0, exploit the full potential of the genuine concept and role of the Internet (i.e. the network of the networks which is created and exists for its users. (Sigala, 2007).

### **2. Social monitoring applications**

The information available online is a very valuable asset. Monitoring can be accomplished by a carefully tracking the communications and users behaviors when visiting social network pages, when bookmarking relevant sites and when subscribing to RSS - Rich Site Summary feeds (Mangold & Smith, 2012).

An example of such monitoring solution is Google Alerts which is a free and easy-to-use service that marketers often employ to monitor communications relating to their products, brands, or company.

Tweetdeck allows users to monitor conversations across a variety of social media platforms including Twitter, Facebook, LinkedIn, and MySpace. Similarly, Social Mention has the

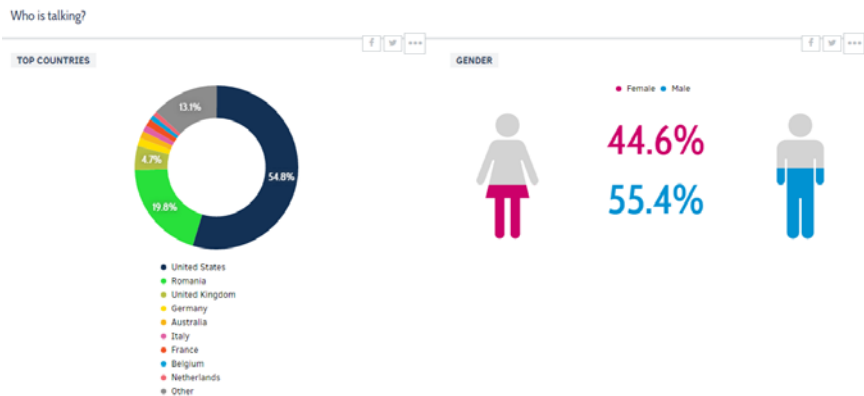
ability to track and aggregate product-related conversations occurring in more than 100 social media venues.

Google Analytics can provide insight regarding which review sites are driving traffic to the company website. It can also specify the amount of time customers are spending there and how many purchases these customers are making. Changes over time can be tracked; plus, performance patterns can be correlated with various marketing activities. Many monitoring solutions are free, while others are fee-based. (Mangold & Smith, 2012).

Another category of big data tools we identified focus on data extraction and monitoring. With the rise of social media, customer review forums, blogs and wikis, more and more companies are using these web 2.0 platforms to provide services and interact with customers. Businesses can monitor, analyze and assess the competitive landscape for a given industry using data mining, text mining and concept level sentiment analysis, thus gaining insights from vast amounts of user-generated content. Software such as SocialMention, Technorati, and Radian6, are designed to interpret a company’s reputation in real time, in order to react swiftly as a socially engaged enterprise (Frizzo-Barker et al., 2016). These applications focus on the semantic analysis of text and images, allowing the association of conceptual and affective online information with natural language opinions. There are public monitoring applications, but also private ones, developed by private companies to better scan, understand and control the online environment that may influence their business.

**3. Research methodology and analysis of results**

In order to assess the possibilities of using and manipulating data with the help of social monitoring applications, a qualitative research has been performed in February 2017, using the experiment as means for understanding the phenomenon and its implications. Our analysis focused on 5 monitoring applications, which were identically tested. These applications are: SocialMention, Social Searcher, Keyhole, Talkwalker, Buzzsumo. The assigned task was to retrieve information from social media about “Bucharest” - the Romanian capital, as tourism strategies should take into consideration the rich data generated by online social traffic ( see figure no.1). The current paper presents partial results, concentrating on the capabilities of the monitoring applications as premises for future development of tourism in Bucharest region.



**Figure no.1: Monitoring results of people mentioning in social media the word “Bucharest”, according to Talkwalker platform**

As it can be seen in figure no.1, the application searches throughout social media and retrieves the profile of people discussing about the issue of interest. Talkwalker’s results indicate the fact that, in a specific period of time social media users, coming from the USA – 54.8%, Romania – 19.8%, UK – 4.7 % and out of which 55.4% are men, have discussed issues about Bucharest, giving thus information about location and gender.

As not all 5 applications are identically constructed we analyzed the characteristics of each individual one, the results being centralized in table no.1.

**Table no.1: Characteristics of social media monitoring applications, as resulted from the experiment**

Characteristics	SocialMention	Social Searcher	Keyhole	Talkwalker	Buzzsumo
Posts	▲	▲	▲	▲	▲
Feeling analysis	▲	▲	▲	▲	-
Influence level	▲	-	▲	▲	-
Intensity	▲	-	-	-	-
Frequency per user	▲	-	-	-	-
Top key words	▲	▲	▲	-	▲
Top users	▲	▲	▲	-	-
Top hashtags	▲	-	▲	▲	-
Export CSV	▲	▲	-	▲	▲
Email alerts	▲	▲	-	-	▲
Top links	-	▲	-	-	▲
Top Internet domains	▲	▲	▲	-	▲
Top object types	-	▲	-	▲	▲
Commitment	-	-	-	▲	▲
Top countries	-	-	▲	▲	-
Top used devices	-	-	▲	-	-
Gender (M/F)	-	-	-	▲	-
Top opinion makers	-	▲	▲	▲	▲
Total number of shares	▲	-	▲	-	▲

*Note:* The symbol “▲” represents information that can be retrieved using the social monitoring application or certain functionalities and the symbol “-” indicates the lack of functionality.

The functionalities synthesized in table no.1 refer to:

- Posts – number of posts containing the tracked word, which in this case is “Bucharest”
- Feeling analysis – the ratio between positive and negative posts that contain the tracked word
- Influence level – the number of unique authors referring to the tracked word reported to the total number of posts
- Intensity – the density of the tracked word in the social media posts
- Frequency per user – the probability that people using the tracked word repeat it in the same message.
- Top key words – the number of overall top key words of the messages

- Top users – users that frequently write the tracked key word.
- Top hashtags – the most frequently used hashtags inside posts containing the track word
- Top Internet domains – the main Internet sources (domains) included in the tracking process
- Top links – the hyperlinks included in the tracking process and the number of the resulting articles
- Export CSV – the possibility of exporting tracking results in Excel CSV format for further analysis.
- Email alerts – the possibility of receiving email alerts about ongoing issues related to the tracked word
- Top types of objects – the types of objects included in the search and the number of results
- Top opinion makers – the most influent users according to the number of their posts “likes” or “dislikes”
- Commitment – the manner an individual uses social networks ( a committed user or an occasional contributor to the social media
- Top countries – the location of the posters in what concerns the tracked word.
- Top used devices – the most used devices for writing or reading posts that contain the tracked word.
- Total number of shares – the percentage of redistributed posts with the tracked word..

As it can be seen in table no.1, SocialMention has two functionalities that none of the other 4 analyzed monitoring tools have: Intensity and Frequency per user. On the other hand, Keyhole offers information about the devices used for the respective posts, while Talkwalker extracts the information of gender associated to post writers. Overall, SocialMention has more than 60% of the functionalities specific to these monitoring instruments used in the current experiment. However, a more comprehensive analysis, will require the convergent use of multiple monitoring applications, especially that the mining scripts specific to these monitoring applications may produce variable results. Of course, we can presume that public monitoring instruments are not as complex in providing insights about customers and markets, as the private social monitoring tools are. Nevertheless, they give a reasonable understanding of the social activity related to the subject of interest.

### **Conclusions**

Tourism 2.0 brings on countless possibilities for improvement in tourism, by taking advantage of the rich user generated content present online. Finding the right information that would help companies improve their understanding of people behavior and their reaction in the social media is a difficult task. Monitoring applications are tools that provide insights about the dynamics of the markets and humans. As the current experiment performed on 5 public social monitoring platforms shows, there is very interesting data that could be taken into consideration when manipulating the communication processes with customers and creating business development strategies. The use of one monitoring application may not be enough, since various monitoring applications have various capabilities and the results vary. Hence a triangulation should provide more objective and reliable data to be used in the development strategy. However, these capabilities are the

premises for a deeper understanding of the customers and for building a successful strategy for developing tourism in Bucharest region

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## **SPREADSHEET ENGINEERING EDUCATION: HOW TO IMPROVE IT? CASE OF SERBIA**

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### **Abstract**

Spreadsheets are becoming increasingly important in many companies. They are suitable to be applied in various business tasks. Thus, it is important to provide appropriate trainings and courses. Many educational institutions recognized the importance of spreadsheets by including in the curricula of their programs. Therefore, authors examined the current spreadsheet state in Serbia. We analyzed the sources of this type of education, and examined the amount and area of spreadsheet usage and quality of provided spreadsheet knowledge. The results show that this tool is applicable in almost every functional area of company and that the main sources of spreadsheet education are higher education institutions. However, the quality of the knowledge is not on the expected level. These results represent an initial effort to identify the directions for curricula improvement, intended for future research.

**Keywords:** Engineering education, spreadsheets, spreadsheet education, education tools, business competences

**JEL Classification:** I21, I23, M21

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### **Introduction**

Spreadsheets have become widely accepted and necessary for the functioning of many companies since they were first introduced into practice. Spreadsheets are used in everyday tasks and they are an important analytic tool in the modern business world. They are used for office tasks, modelling, analysis, forecasting, decision-making etc. Spreadsheet programs have found their application in a wide range of organizational functions in various fields of industry for the achievement of business goals. Spreadsheet end-users work in a variety of business functions: finance, engineering, manufacturing, marketing, sales, administration, etc. (Baker, 2006). Spreadsheets are one of the most powerful tools for analysing data, and it's widely available. Both large corporations and small companies use spreadsheet models to determine their current key performance measures, and where they are expected to be. But, in order to get the most out of a spreadsheet, users have to know how to use it. Consequently, spreadsheets are indispensable part of many educational

courses and commercial trainings. Corporate recruiters from all business functional areas consider that spreadsheet skills are invaluable and demand those skills when hiring employees (Leong, 2008). Therefore, it is worthwhile to examine how well spreadsheets courses are designed and is it possible to identify how to improve them.

Mass-market spreadsheet trainings and books or introductory spreadsheet courses in schools and faculties are not enough, because those sources don't provide the context needed to learn spreadsheet engineering and management topics. Business context is essential to learning these vital spreadsheet abilities.

Although there is trend of measuring academic performance of higher-education institution programmes (Aleca and Mihai, 2016), there are no researches which focus on spreadsheet engineering education. Thus, in this paper, we present the results of the practice research we conducted for determining the usage of spreadsheets in Serbian companies. The aim of the research was firstly to identify how much spreadsheets are used in the practice, and secondly to discover which type of education is the primary source of this knowledge. Also, the goal of the research was to discover the level of spreadsheet knowledge used in these companies, and identify the directions for improvement of spreadsheet engineering education.

### **Spreadsheets in education**

Spreadsheets represent a group of application packages used for table-based calculation (Oke, 2004). Spreadsheets are inexpensive, runs on machines of modest specification, and they are widely available not only to professional engineers but also to learners at universities, colleges and schools, as part of the general information technology education. According to (Oke, 2004) the use of spreadsheets for engineering purposes enables tasks to be completed more efficiently, and often achieves a higher degree of accuracy than humans do. Spreadsheets offer flexibility, ease of use, and application creation with the ability of complex data analysis. Also, spreadsheets are the cheapest tool in comparison to other software applications. Despite the advantages and frequency of spreadsheet use, one of the main problems is the lack of adequate training and education (Alliy and Brown, 2008).

In the field of education, spreadsheets can be utilized in many different ways. Spreadsheets usage reduces the need for tedious calculations allowing greater attention to be focused on the subject itself. This feature of spreadsheets can be used in many different disciplines across the curriculum. For example, handling sizable amounts of numerical data makes it difficult to concentrate on the subject matter in mathematics. The students should be given the opportunity to design and develop their own templates in each content area, and also to use the devices to solve problems and make decisions on the basis of quantified evidence. To achieve these objectives, spreadsheets are recommended, since they are believed to be capable of solving almost any problem involving numbers or formulas, and are especially powerful if data is to be used repetitively and changes over time (Djordjević and Vasiljevic, 2013). Spreadsheets can be tool for motivating students. Students can model problems by themselves quickly, in that way understanding of problems is easies, and very important, students can see result of their work in the short time.

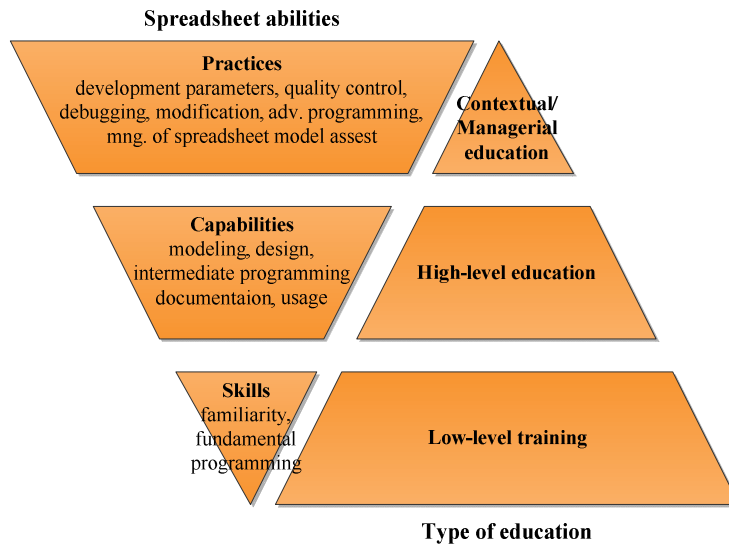
The history of spreadsheet application in education started with finance and accounting fields (Power, 2004). In further development, application of spreadsheets was extended to engineering education. For example, present level of spreadsheet awareness in electrical engineering education is high, due to their insight, interest, foresight, and extensive applications of the package to electrical engineering problems. According to (Oke, 2004),



spreadsheets are virtually everywhere in the today’s engineering field: from elementary numerical analysis in general engineering to quality control in software, from cache based parallel processing systems in electrical.

Spreadsheets provide broad possibilities of creating simulation models for educational purposes. Spreadsheet models are suitable for logistics, business management, operations research, operations management and other studies (Djordjevic and Vasiljevic, 2013). The basic spreadsheet features facilitate static and dynamic simulations, and can be rather effective and helpful in different areas of application. The spreadsheet simulation models can be used as a platform for understanding the mechanisms behind the discrete event, as well as system dynamics approaches. They have advantages of getting software skills in a short period of time, broad availability, ease of use, ease of validation, and low price (Robinson, 2004). It is possible to implement both static and dynamic simulation using spreadsheet standard functions only. Macros and add-ins as simulation engines give an additional support to model construction and replication of simulation experiments. Understanding of simulation models by using spreadsheet can be a basis for understanding business dynamic, for practical investigations or for further shifting to special software (Djordjevic and Vasiljevic, 2013).

Spreadsheet engineering is needful part of business school management science courses. Spreadsheet engineering education can be represented as a hierarchical model (Figure no.1), where levels are: skills, capabilities and practices.



**Figure no. 1: Spreadsheet engineering education hierarchical model**

"Low-level" skills need to be evaluated and fixed early in a spreadsheet oriented management science course. High-level "Capabilities" and "Practices" should be integrated throughout the course (Grossman, 2006). According to Grossman (2006), "People aren't getting what they need from mass-market spreadsheet training books or in their introductory spreadsheet training class because those sources don't provide the context needed to learn spreadsheet engineering capabilities and practices. Faculties must

thoughtfully choose which spreadsheet skills, capabilities and practices they incorporate into their course. They may choose to reduce the quantity of traditional management science topics in order to develop the essential spreadsheet engineering foundation for actual usage of management science. Instructors have many choices to make regarding spreadsheet skills, capabilities and practices. These choices depend on the goals of the school, program, and students, as well as the type of work the graduates will engage in. Different choices will be appropriate in different settings."

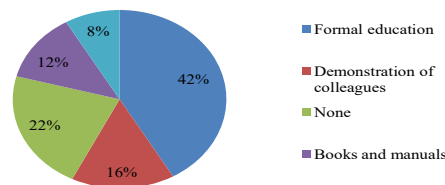
**Research description**

In order to identify the necessity for improvement directions of spreadsheet engineering education in Serbia it was justified to investigate the practical view of spreadsheet usage. For that purpose, we conducted the research which examined the usage of spreadsheet tool, the main education sources, and the main fields of application.

The questionnaire used to collect data on spreadsheet users' characteristics considers seven-phase model of spreadsheet evolution. Phases of the model are: design, testing, documentation, usage, modification, sharing and archiving (Lawson et al. 2009). In accordance with a questionnaire design, defined questions allow determination of users' attributes for seven phases of the spreadsheet evolution model. Besides questions related to spreadsheet evolution model, the survey contains questions pertaining to training, quality control and risk associated with the use of spreadsheets. Questions are closed-ended. The research population consists of spreadsheet users who are employed at companies from various fields of business and functional areas. The survey was conducted in Serbia in year 2015/2016. The research was anonymous. The sample consists of 165 respondents, employees at 15 different companies. For the purpose of this paper we extracted the set of 94 respondents, with bachelor degree. The population was selected as group which is the most representative for the purpose of this research.

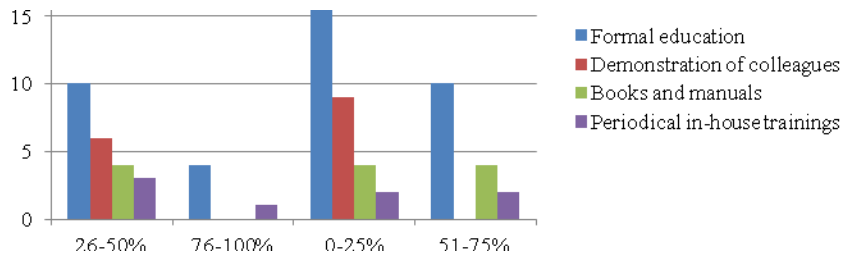
**Results of the research**

In order to examine the sample from the perspective of spreadsheet familiarity, we analyzed the level and sources of spreadsheet education. According to the results (Figure 2), it can be concluded that the major part (78%) of respondents has some spreadsheet knowledge. Additionally, the main source of that knowledge is university courses (formal education sources – 42%).



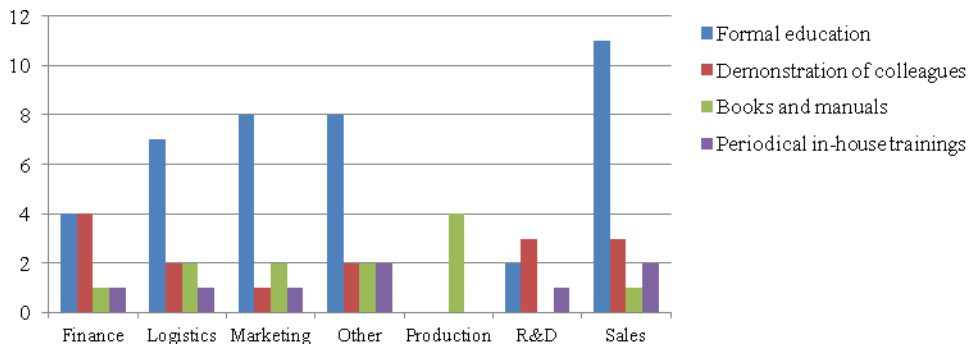
**Figure no. 2: The structure of spreadsheet education sources**

But further, it was necessary to examine the field of application and the usage in daily business activities. For that purpose, we excluded the respondents with no spreadsheet knowledge (“None”), and performed analysis on the remaining 75 respondents. The respondents were also asked to mark the average amount of time engaged in working with spreadsheets. The most of them (41%) are using 0-25% of their time, while 31% of respondents are using it 26-50% of time. Cross-analyzing the education sources and the amount of time working with spreadsheets showed that regardless frequency of use, the main source of education remains the same – formal education (Figure no. 3).



**Figure no. 3: Cross-analysis of spreadsheet education sources and spreadsheet business usage**

Analyse of functional areas (or field of application) also indicates that the dominant source of spreadsheet education is university (Figure 4), which also highlights the necessity for integration of spreadsheet engineering and domain knowledge through faculty courses.

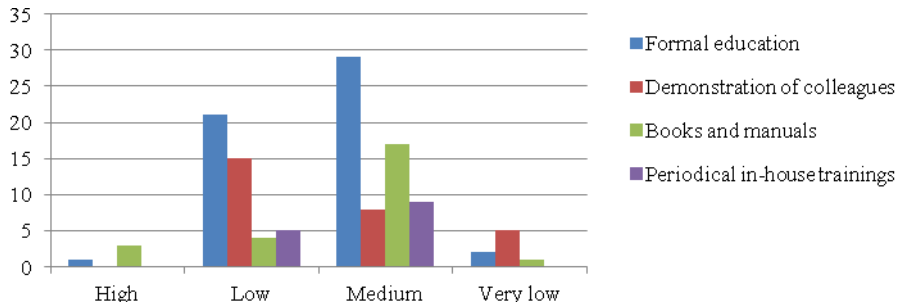


**Figure 4: Cross-analysis of spreadsheet education sources and field of application**

Although the dominance of formal education in the area of spreadsheet engineering is evident, that does not imply that the highest level of skills origin from this type of education. Even though university courses play the main role in spreadsheet education, survey showed that they provide mostly low or medium quality abilities (Figure no. 5). Moreover, significant number of respondents estimated their knowledge as “low” originated from formal education sources. In accordance with Grossmans’ model

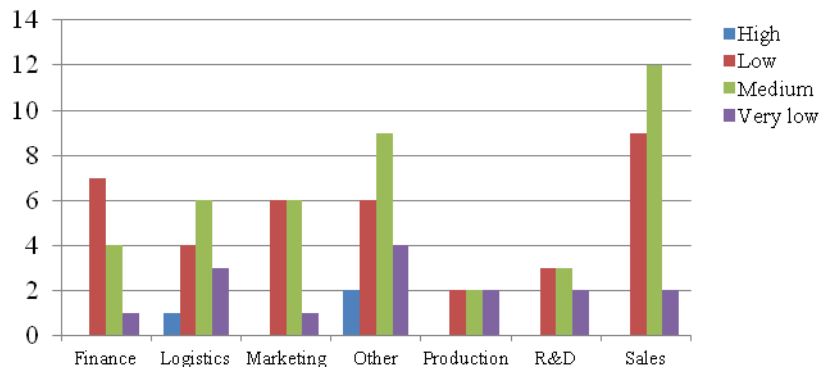
(Grossman, 2006) shown in Figure 1, it would be expected that respondents with bachelor degree are mainly grouped as “medium”. Thus, in the context of curricula, survey results confirm already recognized necessity of introducing spreadsheet engineering topics to appropriate courses.

Based on Grossman (2006), low-level spreadsheet training should be introduced in the education before faculty level. Low-level training considers spreadsheet basics (starting and opening spreadsheet, understand concepts of cells and regions, worksheets, sheet tabs and cell referencing) and fundamental programming (creating and editing formulas; the most common functions; absolute and relative references; simple formatting; cutting, copying, and pasting).



**Figure no. 5: Cross-analysis of spreadsheet education sources and the level of spreadsheet abilities**

Beside spreadsheet basics and fundamental programming, job requirements consider higher spreadsheet education level. Higher spreadsheet education level includes modelling, design, intermediate programming, documentation and usage (Grossman, 2006). As mentioned, the dominant level of knowledge is classified as “low” and “medium”. Lack of spreadsheet knowledge can be attributed to the gaps in faculty education, if they are educated in appropriate business area.



**Figure no. 6: Cross-analysis of the level of spreadsheet abilities and field of application**

Since, there is an alarming lack of high-level spreadsheet educated employees in every examined functional area (Figure no. 6), it is necessary to take certain steps in overcoming this issue. Appropriate spreadsheet training for those participants considers contextual education and spreadsheet management. At this level creators have to plan future usage of spreadsheet (who, when, how often, how many people will use it), resources to construct the spreadsheet model (time, people, money), anticipated future modifications, and any standards to be followed (Grossman, 2006). Advanced training includes advanced spreadsheet programming and VBA. Additionally, as company managers they have to understand importance of spreadsheet quality control, debugging approaches, and management of spreadsheet model assets. Some of guidelines for curriculum that covers quality control and debugging approaches are presented in (Jannach et al., 2014.). Management of spreadsheet model assets refers to spreadsheets in the context of valuable organizational assets. Spreadsheet models and applications shouldn't be considered just as a personal productivity tools. Spreadsheets are artefacts which have to be managed in order to insure efficiency, effectiveness and transferability. Mentioned spreadsheet issues represent part of spreadsheet engineering and management knowledge that should be incorporated in courses for higher education level. On the other hand, this knowledge corresponds to highest level of spreadsheet trainings, designed for managers and heads of departments.

Contextual spreadsheet education in logistics area, for example, covers use of key performance indicator models (Parmenter, 2015), inventory control system modelling (Antic et al., 2015), inventory simulation and optimization models (Liu et al., 2013), etc. In the context of sales and marketing, spreadsheets are useful tool for forecasting methods implementation (Gardner, 2008), budget planning, decision modelling (De Reyck and Degraeve, 2006), etc. For example, interesting approach for introducing spreadsheets in education of logistics managers is presented in (Djordjevic and Vasiljevic, 2013). Authors present approach of modelling logistic problems as discrete controlled object in spreadsheet. Some other examples include usage of spreadsheet for teaching the dynamics of lot size and variance reduction, dynamics of supply chains and business dynamics (Gardner, 2008).

### **Conclusion**

Science and practice have achieved consensus about the importance of spreadsheets in both education and business application. Research presented in this paper also confirms this premise. What is specific about this scientific area is that it is based on the pull from the practice, that is, the practice (starting with finance and accounting fields) initiated the need for spreadsheet usage and this type of education.

There are still many school and faculties where importance and complexity of spreadsheet education levels is not recognised and incorporated in curriculum of courses. As a consequence, there is a serious disadvantage in underestimation of the challenges and corresponding educational opportunities that occur when people build sizable spreadsheets for important business problems.

Spreadsheet best practice can be revealed for different types of users, for specific business area. Further, best practice recommendations represent guidelines for improvement of university courses that include spreadsheet knowledge. In this paper, we made initial effort to have an insight in the current usage of spreadsheet tool, the main education sources, and the main fields of its application. The results show that this tool is applicable in almost

every functional area of company. Although, the main source of knowledge is formal education, its quality is not on the expected level. Consequently, it is necessary to identify further improvement directions, through the definition of curriculum content which integrates spreadsheet engineering and domain knowledge of some university courses (i.e. financial management, operations research, logistics, marketing etc.). Additionally the effects of these findings are directly depending on the readiness of university management to accept the identified curricula improvements.

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## GLOBAL SOURCING AND REPATRIATING OF THE RELOCATED COMPANIES IN ITALY

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### Abstract

While some companies choose to move their production overseas to lower costs, others decide to return to the places where it all began. Repatriating the delocalised companies implies a process of relocation of manufacturing production lines to the country of origin, which is sharply increasing in Italy. To carry out a study of the homecoming of the relocated companies, the applied strategy needs to create a focus group with the companies, which have already been implementing this strategy, as well as a quick survey of questionnaires. The results will show that the past five years marked a deep crisis on the reference markets, as compared to almost 30% within the surveyed companies, which have succeeded to relocate their production activities abroad, while more than 10% either have been brought back to Italy, or are going to do so in the near future. This confirms that the two phenomena need to coexist, marking, however, a change, as compared to the periods in which only outputs could be recorded.

### Keywords

Global sourcing, repatriating of the relocated companies, Italian companies, Made in Italy

### JEL Classification

F23, F63, F21, M21

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### Introduction

With the repatriating of the relocated companies (return relocation, in-shoring, back-shoring, reshoring, etc.), a decision must be taken to either partially, or completely return the production activity which was previously outsourced to foreign countries (Baldassarre, 2012 to the country of origin). According to the surveyed data of 2016, 121 cases of Italian companies have decided to return home their production by early 2000, compared to the decisions of repatriation of the 730 relocated companies recorded in the major industrialized countries. The phenomenon affects mainly North Italy (79%), followed by the

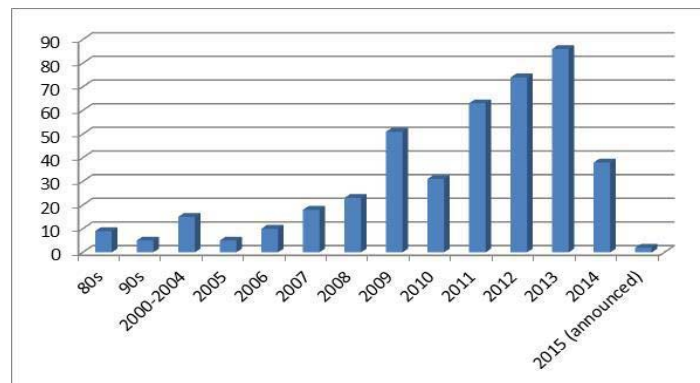
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central (16%) and South (5%). Even the United Nations, by establishing the UNCTAD organization, are trying to encourage homecoming of the relocated companies - a real engine for improving the national economies. After the relocation in China took place in the nineties, the sports giant Adidas returns home to inaugurate a highly technological advanced factory which will employ 160 people and produce 100 thousand pairs of shoes a year, a number that is sufficient to cover the European demand for the high-end products. Adidas is not an isolated case of the previous years; many companies have decided to return home. In 2013, Beghelli, a leader in emergency lighting, has decided to disinvest in China and Czech Republic and return to Emilia Romagna, the origin place of the company. Even Furla was said to produce 300 thousand more bags in Italy and Artsana, a company owning prestigious brands like Chicco, Prenatal and Pic; it is stepping up production in Italy, by leaving out Korea and India. The first element to give a decisive impetus to repatriating of the relocated companies to Italy could be a governmental plan of incentives for the return of the companies, as in the United States. In the US, the numbers look extremely positive. In fact, in 2015, the number of jobs created by repatriating the relocated companies exceeded those lost during relocation. Even in Italy, the number of the returning companies is rising. Since 1997 to the present, about eighty productions have been backtracked. The main reasons are the rising costs, the made-in impact and the need to a rapid respond to the market. However, there is not only the problem of relocation (Grossman and Helpman, 2005; Brockwell, 2008). As part of the rapprochement of businesses to the country of origin, there is a tendency of relocation to closer or even tweak neighboring countries.

### 1. Repatriation of outsourced companies: a global phenomenon

According to the Figure no. 1, this phenomenon has been available since the 80ies & 90ies, but looks significantly spreading, especially during the subsequent global economic crisis.



**Figure no. 1: Distribution of repatriating the relocated companies per year**

Source: Italian National Institute of Statistics, 2015

In geographical terms, the phenomenon affects in a substantially similar way both North America (United States) and the European Union (figure no. 2). Italy, in particular, is the second country in the world (after the US), preceding Germany and Great Britain. Concerning the 'abandoned' countries, most of the worldwide implemented choices are related to China and other Asian countries (table no. 1).

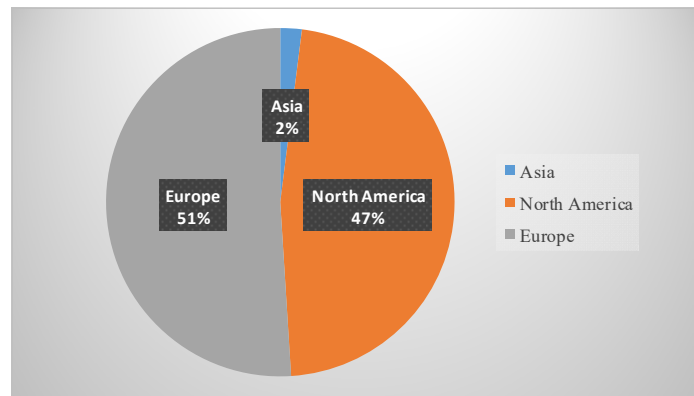


Figure no. 2: Distribution by country of origin of the company

Table no. 1: Distribution of Italian companies by country "abandoned" and by country of return

Country "abandoned"	Percentage	Country of return	Percentage
China	60.30%	China	36.0%
Asia (other than China)	13%	Asia (other than China)	15.1%
Western Europe	12.50%	Western Europe	17.5%
Eastern Europe & former USSR	11%	Eastern Europe & former USSR	26.7%
Central & South America	5.10%	Central & South America	1.2%
North Africa & Middle East	1.60%	North Africa & Middle East	1.2%
North America	1%	North America	2.3%
Oceania	0.20%	-	-

The Italian level phenomenon mostly concerns the Italian companies, China and other Asian representing the most common origins: however, as compared to the global figure, the percentage weight of Eastern European countries looks significantly higher.

From the production point of view, the most common commodity aggregates are those of clothing and footwear, mechanical, electronic equipments and supplies, exceeded only by the fashion industry, which represents a classical Italian local feature.

## 2. The experience of the Italian companies

The process of repatriating the outsourced companies is affordable for any size class, while, in fact, 60% of cases involve large-scale enterprises; more than a third are small companies. In geographical terms, the repatriation of outsourced companies mainly comes from Eastern European countries, although China and other Asian countries totally weigh more than 37%. When analysing the main causes of repatriation of the relocated companies, we will decisively conclude that a third part of those deciding to return home have proved a lesser

degree of control over the product quality, due to the facilities located abroad. Is also significant the need to keep close enough to the R & D activities and production of the Italian laboratories (table no. 2).

**Table no. 2: Motivations for repatriating of relocated Italian companies**

Motivation	Answers share %
Tax wedge reduction	28.8
Bureaucracy simplification	26.3
Detaxation of reinvested profits in R & D	17.9
Energy cost reduction	15.4
Greater protection for Italian product	9.6
Other	1.9

The research shows that a company out of five listed logistics costs, production and employment as critical points. During the focus groups, it is also noticed that some customers, especially foreigners, are asking the Italian suppliers to bring back to Italy the production, in order to increase the percentage share value of the products made in the EU and benefit from customs facilities. By comparing the characteristics of the companies which have decided to implement strategies by repatriating the relocated companies, to those relocating no return to Italy, and those who have never shifted production abroad, some interesting differences are revealed:

- a) the initial choice of the relocation of manufacturing production to a foreign countries (offshoring) was based on the search for lower costs, rather than that on market opportunities;
- b) the implemented innovation projects pay special attention to reducing the environmental impact of products and processes, also including the improvement of working conditions;
- c) lack of funding comes to represent the main obstacle to innovation, while the human resources capacity is considered adequate;
- d) generally speaking, they look more similar to organizational innovation and deployment of ICT technologies.

Finally, with reference to industrial policies, which could encourage further repatriating of the relocated companies, we may particularly highlight the problem of reducing the tax burden and simplification of bureaucracy.

### **3. Repatriating the relocated companies: phenomenon definition and trend**

Repatriating the relocated companies is a global phenomenon, involving businesses, showing Italy as the first region in Europe since 20110. Unlike the delocalization, a phenomenon that has marked many industrial choices in the past, mainly to Asian countries, repatriating the relocated companies conversely represents the relocation of the company production to the territory of origin. While ten years ago, we could talk about isolated cases and unconventional, nowadays proves that the repatriating of the relocated companies is a global trend, in which Italy stands as the protagonist. In fact, since 2007 to 2012, Europe has been facing exponential growth returns, with peaks of 44 in 2009, up to 68 in 2015. In this research, we have identified and analyzed 304 cases of the repatriating

relocated companies operations, which can give an idea of the respective phenomenon and its peculiarities. To highlight the features, the data were divided into different categories, depending on the country of origin, the type of production, the years, which implemented the repatriating of the relocated companies and the countries that were abandoned to come back to the territory of origin. Paying a special attention to the Italian cases, we also introduced other criteria, such as time range between the delocalised and repatriating of the relocated companies, company size, and reasons for the company to have returned to producing in its country of origin. Of the analysed 304 cases (Table no. 3), 134 are related to US companies, most of which abandoned either China (81 operations back-shoring), or other Asian countries (37), while few companies abandoned Central & South America (8), the Western Europe (5), the Eastern Europe (2) and North America (1).

**Table no. 3: Breakdown- by countries and regions**

Country	Abandoned country/region						Total
	China	Asia (other than China)	Eastern Europe	Western Europe	Central & South America	North America	
USA	81	37	2	5	8	1	134
Italy	26	11	18	11		2	68
Germany	11	6	10	9	5	1	42
France	20	2	6	1			29
UK	13		1	1			15
Canada	2						2
Japan	2						2
Norway	2						2
South Korea	1	1					2
Sweden	2						2
Taiwan	2						2
Finland				1			1
Slovenia				1			1
Spain	1						1
Switzerland	1						1
Total	163	57	37	29	13	4	304

Italy comes first in ranking, with its 68 repatriation of the outsourced companies operations, 26 from China, 18 from Eastern Europe, 11 from other Asian countries and Western Europe, and, finally, two from North America. Germany, with 42 repatriation operations of out sourced companies, abandoned China and Western Europe (11:10 operations), Western Europe (9), other Asian countries (6) Central & South America (5) and North America (1). As many as 20 out of 29 cases of French repatriation of outsourced companies come from China and other 13 from Great Britain. Then, the Chinese territory comes first among the countries abandoned by the companies, with its 163 analyzed cases, followed by other Asian countries (57) and Eastern Europe (37). As shown in the Table 4, most of the companies which abandoned China ,they did it did between 2007 and 2010 (78), while having concomitantly been abandoned, to prefer areas of origin, even Eastern Europe and Western Europe, while the peak of 'the

leaks' from other countries Asian occurred in 2012. Out of the 304 repatriation operations of outsourced companies analyzed, most of them are involving companies belonging to the clothing and footwear sector, followed by the mechanical, electronic and supplies.

As for Italy, research has related the data of 68 repatriation operations of outsourced companies with those of the 'abandoned' countries and the type of interested companies.

**Table no. 4 Breakdown by year and geographic areas**

Year	China	Asia (other than China)	Eastern Europe	Western Europe	Central & South America	North America	Total
80	-	5	-	-	4	-	9
90	1	-	-	-	-	-	1
2000-2005	5	10	2	4	1	2	24
2007-2010	78	13	28	19	1	2	141
2011	29	10	-	2	2	-	43
2012	45	17	4	2	1	-	69
2013	5	3	3	2	4	-	18
Total	163	58	37	29	13	4	304

It turned out that, most of the operations involved companies in the clothing and footwear sector returned from China and other Asian countries and Eastern Europe, followed by the mechanical sector companies operations, mainly back from Western Europe and from that of the East, as well as from China. It turned out that most of the operations involved companies in the clothing and footwear sector, returned from China and other Asian countries and Eastern Europe, followed by the engineering sector companies operations, mainly repatriating the outsourced companies from Western and East Europe, as well as those from China (table no. 5).

**Table no. 5: Repatriation of the relocated companies - breakdown of Italian industries in the geographical areas**

Sector	China	Eastern Europe	Asia (other than China)	Western Europe	North America	Total
Clothing & footwear	14	8	9	-	-	31
Food & beverage	-	-	-	1	-	1
Furniture & home furnishing	3	2	-	1	-	6
Automotive	1	1	1	-	-	3
Biomedical	1	-	-	2	2	5
Electric	-	2	-	-	-	2
Home appliances	4	-	-	1	-	5
Electronic	1	2	-	2	-	5
Mechanical	2	3	1	4	-	10
Total	26	18	11	11	2	68

The research carried out also analyzed the reasons, which led Italian entrepreneurs to decide on their repatriating of outsourced companies to Italy. Consequently, for 42% of the survey, the main reason of the repatriation of outsourced companies is the positive impact over Italy and the consumer, associated with good manufacturing products. The second reason indicated as motivation for repatriating operations of outsourced companies for the 24% of them is the poor level of delocalised production quality, while the third reason (21%) is the need for greater attention to the consumer's needs. For 18% - the social pressure in the country of origin, -for 16% the fact that there is a higher level of skills in the country of origin. In addition, 13% of the respondents consider the availability of manufacturing capacity as a result of the economic crisis and of the reducing of the labour cost gap in the country of origin; finally, for 11%, - lower logistics costs in the country of origin.

#### **4. The companies are back to Italy**

After years of manufacturing emigrated to abroad by engaging in a massive relocation, which has resulted in not only the loss of numerous jobs, but also a deterioration of the quality standards of the products made in Italy, the trend finally seems having started to reverse that of the return of many companies. Between the late 1990ies and the early 2000ies, it was widely believed that, to compete globally, there were only two paths to follow: reducing the cost of labour and considerably lowering the energy cost. In addition, between 2008 and 2012 it seemed that these two factors did no longer represent an industrial strategy, but a real necessity. It only appeared one solution, which was moving the headquarters of their company, from the national borders to countries where they could spend less, both for the workers' salaries and for production, in the broadest sense of the term. During the four years of strong recession, 80% of the Italian companies chose to relocate, especially moving to the Eastern European countries such as Bulgaria, Poland, Romania and Hungary. However, 2016 seems to be the year of change. Despite the problems with the tax wedge and the cost of energy, which were not removed in a structural way, many companies have decided to change their plans, focusing precisely on the concept of quality that only the location on the national territory can guarantee. Consequently, competitiveness could also be ensured by focusing on a brand, which has always been similar to the excellence made in Italy. On this point, even the Centre for European Research, has published a report, carried out in collaboration with Unindustria, on repatriation of the outsourced Italian manufacturing companies; the Italian manufacturing industry turns around (Brambilla, 2016). According to the updated information of June 2015, 101 companies had already relocated their products to Italy, returning from China (34.6%) and Eastern Europe (26.7%). Going back to Italy, there are mainly companies activating in the textile, fashion apparel industry, flagship sector of the Made in Italy (43%), followed by those that deal with electrical and electronic equipment (21%), and by the mechanical companies (8.9%). With the globalization having prevailed and hundreds of companies needing to move abroad, an opposite phenomenon has increasingly appeared during the recent years, the one of repatriating the outsourced companies. Dozens of companies are back and reopen the factories in Italy because of the economic advantage of producing abroad has decreased and the markets much more frequently require products 100% made in Italy. According to various studies, since 1997 to 2013, the production lines brought back to Italy were 79, most of them achieved within the last five years, in the middle of the deep crisis. In 2009, for example, there were 16 cases. In 2015, there were eleven outsourced repatriated companies, as well as in 2011. These figures place Italy ranked first among the European countries, which have experienced similar situations of

repatriating many outsourced companies. Among the most involved sectors into the repatriating phenomenon, we may notice clothing and furniture, two spearheads of the 'Made in Italy' brand.

### Conclusion

Due to the repatriation of the outsourced companies, the relocated production returns to the country of origin and may present two aspects: first, a company making the turnabout of an establishment opened abroad; secondly, by choosing suppliers in a country closer to that of origin, called proximity repatriation of outsourced companies. Ikea comes as an example, which, for some furniture components has shifted from the Southeast Asian suppliers to the Italian suppliers. Moreover, among the reasons for the repatriation of the outsourced companies one may consider the impact of the "made in", the productive capacity of the establishments and, above all, the constant increasing interest in foreign countries, as well as in developing countries concerning labour costs and those relating to logistics, transport, storage and the order-to-delivery process, etc. The example of Zara, which renews its catalogue every three months according to customer needs, is emblematic. A supply from China that takes 30 days to arrive in Europe, does not allow rapid production modifications. It is evident, therefore, that, to be competitive, it is necessary to use a shorter time (Hong, Holweg, 2009) and react quickly to markets (Kotabe, Mol, 2006), which from Southeast Asia is conversely much more complicated. Zara is not the only company that considers the responsiveness to customers as a competitive advantage. In Italy, despite of early positive signs, there are still many companies having difficulties due to labour costs, energy and the existing obstacles in enabling the repatriating of production processes. However, it seems that 2016 was the year of change because many companies have decided to modify their ongoing plans by focusing on quality and competitiveness, localization in national territory, and using a brand such as 'Made in Italy' which has always stood for excellence.

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## **LONGEVITY/SILVER ECONOMY AND SENIOR ENTREPRENEURSHIP: THE CASE OF ROMANIA**

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### **Abstract**

The expanding ageing population phenomenon is both a challenge and an opportunity at both social and economic levels. Related to this major demographic shift, longevity/silver economy and senior entrepreneurship are emerging fields providing a rich topic for scientific studies, largely unexploited and requiring new approaches. The purpose of our paper is to contribute to a more in-depth understanding of those two low documented fields, by emphasizing their increasing dynamic and their main features through an extensive and thorough analysis. The different passive and active co-existing roles of people aged 50 or over and the associated benefits are carefully detailed. Elderly active role as entrepreneurs is addressed and examples of relevant to senior entrepreneurship policies are highlighted. The new generated knowledge, using an exploratory qualitative research regarding Romanian elderly entrepreneurial initiatives revealed that seniors orientation towards entrepreneurship, mainly relies on the experience and relationships accumulated along the time, self-confidence, and optimism; their age is not perceived as an obstacle.

As the first to address the subject of senior entrepreneurship in Romania, this paper can contribute to the complex process of raising awareness about Romanian silver economy and seniors' untapped potential. It is also pointing on further research directions that can have positive implications in the effort to design appropriate policies and programs in our country.

**Keywords:** Longevity/silver economy, active ageing, senior entrepreneurship, third age entrepreneur

**JEL Classification:** E23, I23, M10, M13, O30, O47

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### **Introduction**

The aging population, a worldwide recognized phenomenon is one of the greatest achievements of the humankind posing, in the same time, some of the greatest challenges.

Over 1.6 billion persons in the world were 50 years old and over, by 2015, and their number is projected to reach nearly 3.2 billion by 2050. In the US alone, seniors' number amounted to 1/3rd (111 mill.) of the total population in 2015 (Oxford Economics, 2016).

Europe is facing a similar "graying" trend of its population. The 2015 Ageing Report is emphasizing the "dramatic projected changes" of the EU's demographic structure, and their potential economic and social consequences (EC, 2015a). The economic dimension, known as the "longevity economy" (LE) in the US or "silver economy" (SE) in the EU encompasses the contributions of the 50+ age segment.

The scope of this paper is to explore the issue of senior entrepreneurship (SeniorE), in general and in Romania in particular as a new, emerging field of study and a dynamic component of LE/SE.

The paper is structured into 3 parts, all outlining the aspects of the complex changing paradigm of the elderly in a passive role, into an active one. According to this new approach, active ageing can transform seniors from simple customers, respectively beneficiaries of social and economic progress, into active participants in the society, as workers, entrepreneurs, investors, volunteers, and philanthropists.

The first part of the paper summarizes the multiple dimensions of emerging concepts like LE/SE and its main components. Concrete aspects regarding seniors' multiple roles and their social and economic impact are also detailed. The second part discusses key challenges related to SeniorE. Start-up intentions, typologies, and motivations of senior entrepreneurs are also underlined. The final part of the paper emphasizes general aspects on SeniorE emerging phenomenon in Romania, through an exploratory qualitative research's findings and provides a conceptual framework for enhancing seniors' involvement in entrepreneurial activities.

In the context of scarce literature, but very recent and focused mainly on the US and EU, this research paper, the first one to address the issue of SeniorE in Romania is contributing to the process of creating awareness about older people's untapped potential and new knowledge about this current topic. It also suggests future research opportunities in the field.

### **1. Active Ageing, "Longevity"/ "silver" economy - complex emerging concepts**

The ageing demographic trend led to the relatively new concept of "Active Ageing", deployed by World Health Organization in the late '90s. Adopted by the European Commission too, the active ageing framework is not limited to concerns regarding social protection, but it refers mainly to the inclusive idea of longer involvement of elderly in socio-economic, cultural, spiritual, and civic activities (UNECE, 2015). In this context, efforts to capture their contribution led to new approaches and concepts like LE/SE.

The American Association for Retired Persons (AARP) has coined the sintagm LE for US as representing "the sum of all the economic activity serving the needs of Americans aged 50 and over and including both the products and services they purchase directly and the further economic activity this spending generates" (Oxford Economics, 2013, p.4).

Categorized as a challenge of the EU's economy, the ageing population is strongly related to the SE. This emerging concept is defined by the EU Commission "as the economic opportunities arising from the public and consumer expenditure related to population ageing and the specific needs of the population over 50" (EC, 2015b, p.1). SE is part of the general consumer economy, but with specific features in terms of needs and spending patterns, for each of the 3 identified groups: active, fragile, and dependant.

The results of a standard economic impact assessment for 2015, using three main key metrics, revealed major direct, indirect, and induced effects of the US LE: 7.6 trill. \$ total contribution to GDP which is making it the world's 3<sup>rd</sup> largest economy, after those of US and China; 89.4 million jobs supported by the 50+ cohort's spending; 4.7 trill. \$ labor income, earned by LE workers. Almost 1 trillion \$ in federal taxes, and over \$750 billion in state and local taxes are also generated yearly by the LE (Oxford Economic, 2016). Merrill Lynch's estimations show that by 2020, the global private spending power of seniors is expected to reach 15 trillion \$. As for the public spending, in the EU for example, it will represent over 25% of its GDP. (EC, 2015b).

People aged 50 or over are "playing" one or multiple co-existing roles in the LE/SE, as: *consumers, employees, entrepreneurs, investors, volunteers, and philanthropists*. If the first role is considered passive, the next ones are reflecting seniors' proactive side (Isele and Rogoff, 2014). Seniors' roles as entrepreneurs and investors are detailed in the second part of this paper.

Even if passive, *the consumer role* of people aged 50 and over is based on an unprecedented accumulated wealth. In the US alone, seniors' group is in control of almost 80% of the country's net worth (Oxford Economics, 2016). Elderly associated spending is supporting an increasing number of jobs and is having a broad impact on many industries, including health care, pharmaceutical industry, housing, car industry, hospitality, etc. Seniors' higher purchase power, especially in developed countries, is also fueling demand for new products and services, driving growth and direction, stimulating innovation in emerging domains like: biotechnology, telemedicine, remote devices, anti-ageing, cosmetic surgery, hormone therapies, etc. Elderly distinctive lifestyle and consumption patterns translate into new business opportunities. Many start-ups are aiming this growing demographic segment in order to meet its expectations and needs and to improve their ageing experiences. Also, several large companies have developed SE strategies (Fulea, Șandru, Brad, Maftei, 2015).

In the context of higher life expectancy and quality of life, seniors tend to extend their work lives, contributing longer to the economic growth and supporting the fiscal system, as *employees* (Oxford Economics, 2016). Elderly can fill full time jobs, or part-time/ seasonal ones complementing, rather than competing younger people's jobs. Persons in the 50+ segment are also taking increased advantage of "gig" and/ or share economies, providing alternative and flexible work opportunities. The 50+ cohort's motivations range from not being financially prepared for retirement, to maintaining an active, independent and healthy life. However, in this role, they have to overcome sometimes not only personal barriers, like undervaluation of own education and experience, lower adaptability to complex and diverse requirements, decreasing self-efficacy, etc., but also barriers in the work place: biased perception of younger generations, age discriminatory practices, financial disincentives for employers, etc. There are contradictory research findings about productivity being inversely related to age (Aiyar, Ebeke and Shao, 2016; Oxford Economics, 2016).

Increasing evidence is generated about seniors' involvement as *philanthropists*. In the most documented example, that of the US, the "baby boomers'" propensity for charity is significantly higher than that of younger generations (Isele and Rogoff, 2014). The same segment has proved to spend more time doing *volunteering*. Also, many senior Americans have reported different forms of assistance provided to their parents and financial and/or non-financial support to their adult children.

In the EU, the recently developed Active Ageing Index (AAI) is a viable analytical tool, with scores ranging from 0 to 100, facilitating periodic assessment of older people's potential at the national level and progress tracking. AAI's 22 individual indicators are grouped into 4 domains, each reflecting different dimensions of active ageing (UNECE, 2015): *Employment* - capturing seniors' contributions through paid activities, *Social Participation* - through unpaid productive activities, *Independent Healthy and Secure Living* and *Capacity for Active Ageing*. The first three domains are a fair indicator of the diverse activities that seniors are involved in.

Just like other EU members, Romania is experiencing a similar aging trend, which combined with heavy migration of its active population, increasing life expectancy, and falling fertility rates, is having major socio-economic implications. According to statistics, by the end of 2016, there were 7.568 million Romanians aged 50 and over, with the 55-64 age segment being the largest (INS, 2016). Seniors' relative weight, of 38.30% out of the total population (19.76 millions) is forecasted to further increase (Eurostat, 2016). The number of retirees (farmers included) amounted to 5.245 million people, representing 69.3% of the total number of seniors and over a quarter (26.54%) of the total population. These figures are giving an overall image of SE size, an unexplored topic in Romania. There are no formal estimates of neither direct, indirect, nor induced impacts of Romanian SE, nor scientific studies regarding businesses that are senior oriented, or associated number of jobs. In general, elderly Romanians have significantly lower accumulated wealth compared to those in developed countries, due to centralized economy's constraints, before 1989, a difficult transition after, and very low pension levels. However, their number and spending power cannot be neglected. Our rough estimation, according to the average net salary (of 2.354 lei/ approx. 523 €) and the average net pension (958 lei/ approx. 213 €), correlated with the number of working seniors and that of retirees led to approximately 30 billion € in private spending in 2016. Recent measures to increase pensions and wages will induce higher seniors' spending as consumers. Future studies aiming seniors' growing segment, their specific work-life choices, their consuming behavior patterns and efforts to raise awareness about the increasing "silver" market potential can translate into new opportunities, for many new start-ups and/ or existing businesses.

Even if, the 2014 AAI Report ranked Romania (29.6) in the lower index values group of countries - though before Slovakia (28.5), Hungary (28.3), Poland (28.1), and Greece (27.6) - above average scores were registered in the Employment domain (UNECE, 2015). Almost one third (29.32%) of all seniors (INS, 2016) are active as employees, owner/entrepreneurs, self-employed, or as informal workers (unpaid), collectively, spending more money, adding to tax revenues and producing economic value for a longer period of time.

## **2. Senior Entrepreneurship component of longevity/ silver economy**

The term of SeniorE is commonly referring to people aged 50 or over, who are planning to start a business, are currently in the process of starting one, or have recently started one (OECD, 2013). Through their business start-ups or existing ones, seniors are contributing to value creation for the community and themselves, to job creation, to the fiscal system, and to a higher social inclusion. Also, active seniors tend to stay healthy longer, thus reducing pressure on social services and associated public costs.

The 2016 LE Report is underlining a growing presence, in the US, of senior entrepreneurs who started one third of all new ventures, during the last 10 years. The 55-65 demographic segment displayed the highest entrepreneurial activity during the same time span. Older

entrepreneurs can demonstrate skills to properly assess the environment and can contribute, along with the younger ones to the diversity of offerings on the market (GEM, 2014).

The profile of the US senior entrepreneurs, for example, includes as dominant traits (Schmalbruch, 2014): mainly of masculine gender, running their businesses, usually with less than 5 employees (if any); well educated, in general and self-confident; driven mainly by positive motivations; willing to take risks, just like younger entrepreneurs; with strong professional networks; using primarily personal savings rather than loans to finance their businesses. Their favorite industries are: retail, agriculture, services, etc. Green businesses seem to be also favored by elderly entrepreneurs (Isele and Rogoff, 2014). They also tend to have greater experience and a wider network of contacts compared to their younger peers (EC, 2016) and paradoxically may be less concerned about start-up challenges, probability of businesses to have higher survival rates (OECD, 2013) and a stronger desire to "give back" to the community/ society (EC, 2016). However, several perceived barriers holding back seniors from opening their businesses have been identified: age related barriers (discrimination, lower adaptation capacity, etc.); lack of relevant information and supportive regulations; semi-inexistent guidance; difficult access to resources; negative age stereotypes; etc. (Kilber et al., 2012).

Several studies and reports were issued recently, emphasizing SeniorE's great potential and pointing at appropriate legal measures and effective programs to foster it. Policies relevant to SeniorE should be connected to its three influencing factors: *motivation, skills, and opportunity*. Measures focusing on raising seniors motivation might include: raising awareness about entrepreneurship as a possible work alternative; aiming third age women in order to increase their levels of entrepreneurial activities; reducing age biases by promoting their economic potential. Skills oriented measures should be tailored to each senior group's features. Opportunity targeted measures should be reviewed and adjusted in order to avoid disincentives to SeniorE.

Recently launched, by the European Commission, the Good Practices Manual provides a valuable overview of 24 existing initiatives in the area of SeniorE, grouped into four main types of support and sources of information (EC, 2016): education/training on entrepreneurial skills; individual mentoring of seniors; development of networks of seniors/projects/ institutions; research. The mapping of those initiatives by country include: Belgium France, Germany, Ireland, Portugal, Slovakia, Slovenia, Spain, and UK.

### **3. Senior Entrepreneurship in Romania - an exploratory qualitative research**

As other former centralized economies in the Eastern Europe, Romania tends to have lower senior inclusiveness compared to the cluster of more developed countries, having longer tradition and experience (Pilkova et al, 2014). Statistics shows low percentages of seniors involved as owners/ entrepreneurs or self-employed, and a preference for the second type of professional status. Low incomes/ pensions are, probably, among the main driving forces (table no. 1).

Seniors' formal education was completed during the former centralized regime with no entrepreneurship component, thus negatively impacting their entrepreneurial mind set and propensity to engage in entrepreneurial activity.

**Table no. 1: Professional Status of Romanian seniors by age group (2016)**

Age group:	Professional Status:	No. of seniors	% of total nr. of seniors
<b>50 - 64</b>	Employee	1,309,931	17.31%
	Owner/ entrepreneur	17,610	0.23%
	Self-employed	448,468	5.93%
	Informal worker (unpaid)	152,746	2.02%
	<b>Total (group 50-64)</b>	<b>1,928,755</b>	<b>25.48%</b>
<b>65 and &gt;</b>	Employee	21,253	0.28%
	Owner/ entrepreneur	1,555	0.02%
	Self-employed	185,744	2.45%
	Informal worker (unpaid)	82,370	1.09%
	<b>Total (group 65 and&gt;)</b>	<b>290,922</b>	<b>3.84%</b>
<b>50 and &gt;</b>	<b>TOTAL (working seniors)</b>	<b>2,219,677</b>	<b>29.32%</b>

Source: Adapted upon data from Institutul National de Statistica (INS), 2016

Our exploratory qualitative research's aim was to identify the main characteristics of existing senior entrepreneurs. The research consisted of in-depth structured interviews carried out with five senior entrepreneurs, active in the urban area. In accordance with the designed objectives, our findings are summarized below:

- According to the first objective - *designing the profile of the Romanian senior entrepreneur* - outlines a higher orientation towards entrepreneurship after the age of 54. The option for a certain industry was mainly influenced by the training and experience gained over time and, not least, the passion. Information obtained did not reflect the predominant existence of a certain level of education or social status.
- *Determining the main motivations of Romanian senior entrepreneurs*, the second research objective, emphasized, as main motivational variable, the expertise in the chosen industry, also considered as an advantage over younger entrepreneurs. Other motivational factors refer to ensuring a better future to their children and the need to supplement their income. "I 'experienced' some positive incentives like the desire to exploit the experience I had, to accomplish more in my life and to earn more money, to be my own boss and to try to do something different" (entrepreneur 1). Prevailing behavioural characteristics that have led senior entrepreneurs to start a business were optimism, self-confidence, and resilience. "I wanted to provide a better future for my son, to earn more money and to be the one who decides on my schedule, life, etc., practically to be my own boss" (entrepreneur 2).
- Based on our third research objective - *identifying major obstacles to overcome by senior entrepreneurs* - we noticed that none of the interviewed entrepreneurs consider himself/herself age discriminated. Furthermore, they all consider age as a real advantage. "I did not feel any discrimination because of my age. On the opposite: sometimes, I felt like people were very respectful with me, due to my age" (entrepreneur 2). The main barriers they faced were more related to financial and bureaucratic issues, and to the difficulty of obtaining the necessary licenses for their business. Specific to their age, the main mentioned personal barrier was the deteriorating health.
- Also, no respondent aims at developing his/her business in the next five years. Potential means of diversification were somehow considered and, in case of one interviewee, the probability of a future development was considered only from the perspective of another family member involvement, as partner. The option of maintaining the current

stage of business reflects, once again, behavioural attributes specific to senior entrepreneurs, such as moderate risk taking and analytical capacity in setting goals.

- The last research objective aimed to *identify different means for fostering entrepreneurship among seniors*. The methods proposed by the respondents aimed support measures at both personal level - general literacy and opportunities identification - and general level. Considering this later aspect, the improvement of access to financing and the development of policies for encouraging senior entrepreneurs were aimed.

### Conclusions

The aging population phenomenon should be perceived in an inclusive way, more like an opportunity than a challenge. LE/SE and its related component SeniorE are changing the social and economic frameworks. Through their multiple roles, as consumers, workers, entrepreneurs, seniors are fueling and driving direction to many industries. Recognizing them as a great resource and tapping their potential require a major paradigm shift.

Our qualitative research's results reflect an optimistic view on SeniorE in Romania. Elderly display rather high self-employment and entrepreneurship potential, backed by diverse motivations and do not perceive age as an impediment. Furthermore, age is considered a competitive advantage, due to the experience accumulated over time.

Further pieces of research regarding influences of the business environment, entrepreneurial education and national culture on seniors are needed. Also, upcoming studies should aim at measuring seniors' contribution at both economic and social levels, in terms, for example, of newly created jobs, elderly accessing financial services, number of volunteering hours, etc. Their conclusions could have positive implications in the effort to design appropriate policies and programs in our country, able to support a more inclusive society, in general and SeniorE in particular, in compliance with the EU 2020 strategy for smart, sustainable and inclusive growth.

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## **NUDGING TOURISTS IN PROTECTED AREAS: BREAKTHROUGH STRATEGY FOR DEVELOPING ECO-SUSTAINABLE GOODS AND SERVICES**

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### **Abstract**

The purpose of this paper is to examine to what extent and in what forms the nudge that can be implemented by protected area's management can be seen as a strategy for developing eco-sustainable goods and services. Therefore, the paper identifies the nudging measures applied by protected areas's managers to influence tourists behaviour in order to consume eco-sustainable goods and services. The paper relies on an exploratory case study of National Park of Sibillini Mountain, Italy. The empirical evidence was collected through secondary data, observation and interview with the manager of the park. We report that the National Park's management through nudge tools influence the tourist behaviors in order to make tourists act more responsibly and to consume eco-sustainable goods and services. Overall, this study contributes to literature by revealing the nudge tools that can be applied by natural protected area's managers in order to develop strategy for eco-sustainable consumption.

**Keywords:** sustainable consumption behavior; nudging measures; protected areas; eco-sustainable goods and services

**JEL Classification:** M1, M2, O1, Q5, Z3, Z32

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### **Introduction**

Of particular interest and complexity in behavioural sciences are issues regarding the understanding of human behaviour and factors influencing behavioural change and the developing of useful strategies in order to help policy makers for improving welfare and sustainable consumption (Berg, 2011; Schrader and Thøgersen, 2011).

Recent studies in behavioural sciences have focused on the less rational nature of humans and the importance of behaviour biases and the decision context - the environment in which individuals make choice.

Although considerable research has been devoted to choice architecture which refers to the informational and physical structure of the environment which influence the way in which choices are made, rather less attention has been paid to nudges which refer to focused changes in the choice architecture "that alters people's behaviour in a predictable way without forbidding any options and significantly changing their economic incentives"

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(Thaler and Sunstein 2008:8). The recent findings of Sunstein (2014a, 2104b) has led to the conclusion that nudge can be a strategic measure for encouraging sustainable consumption behaviours.

The purpose of this study is to review the nudging measures - simplification and framing of information; changes to the physical environment; changes to the default policy; the use of social norms - that can be implemented in protected areas in order to develop strategies for eco-sustainable goods and services, focussing on how the management of Sibillini Mountain National Park influence the behavior of tourists through nudging measures to determine them to consume eco-sustainable goods and services.

### **1. Literature review**

In the literature there are several examples of new strategies for behaviour change, but one will continue to draw the attention of the reserachers and policy makers in sustainable consumption: nudging. The role of choice architecture and nudge in inducing changes in context specific behaviour were first analyzed in 2008 by Richard Thaler and Cass Sunstain in the book *Nudge: Improving decisions about health, wealth and happiness*. According to Hall (2013) nudge influences social or physical environment's choice architecture in order to promote behaviour that is beneficial for individuals or society as a whole. Sunstain (2014a, b) argued that nudging is a tool to increase sustainable consumptions behaviour. In 2016, Matthias Lehner et al have reviewed this argue and reported that nudges might be possible salient measures in order to minimize the environmental impact in three sustainable consumption's domains: energy, food and transport.

In literature more authors highlight that the nudge comprises four types of tools: simplification and framing of information; changes to the physical environment; changes to the default policy, and use of social norms.

In 2016, Matthias Lehner et al. discussed that the nudge is based on not only the amount or accessibility of information, but also like the information is presented. For example, providing simplified information and signifiers - information that is added to a context to make information more salient - adapted to a particular choice situations increases the possibilities of influencing consumers. Viachaslau Filimonau et al (2017) found that clients base their choices, when dinning out, on a limited numbers of determinants and thus the salience of various determinants matters. Based on the customer survey conducted among visitors to a UK casual dining restaurant, they reported that next to price, the salience of detrminants as food provenance, nutritional value and food carbon values determined consumer choice when dining out. Therefore, restaurants should design the menu as a customer nudging tool which can enable people to make choice more beneficial from the sustainability perspective. In his study, Wansink et al.(2001) used framing - concious phrasing of information - as an instrument that activates certain people's values and attitudes by renaming menu items in a school cafeteria through the descriptive informative (e.g. "succulent Italian seafood filet"), instead of using plainly informative "seafood filet". The study results shown an increase in sales by 27% by using descriptive label. Sunstain (2014a,b) has developed a nudge tool that is to simplify the information delivery to the users, highlighting the importance of certain characteristics or improving the level of convenience.

Recently, Pucher and Buehler (2008) suggested that changing layouts and features of the environments is an valuable nudging tool to influence travel behaviour. Their studies results, based on national agregate data regarding cycling of a large and small cities form

Netherlands, Germany and Denmark, reported that significant tools for promoting cycling are the provision of separate cycling facilities along heavily traffic roads, supplemented by ample parking space for bikes and the integration of cycling with public transport, which recall urban planning soft policies, like nudging.

Consumers are significantly influenced by standard choices - defaults - that decide the results in case they don't take action. Consequently, authors like Egebark and Ekstrom (2013) considered changes to the default policy as a salient nudging tool: they reported, based on the natural field experiment, that the daily paper consumption at a large Swedish University has been reduced by 15 percent due to the change of the default on double sided option. They also reported that the default effect works through recommendation and depends positively on the choice set alternative's numbers.

According to Cialdini and Goldstein (2004) the social norm should be relevant, visible, for individuals in order to produce an impact on behavior. The social norm drawn attention of the authors like Goldstein et al (2008), which are using it as an nudging measure to change the reuse rates of towels in hotels. Based the results on two field experiments in well-known hotel chain they reported that descriptive norm message informing the tourist that a majority of other visitors participate in the towel reuse program (e.g., "the majority of guests reuse their towels") was more efficient than the standard message regarding the importance of environmental protection (e.g. "help save the environment by reusing your towels during your stay"). More, they reported that descriptive norm message were more efficient when describing group behavior that occurred in the setting that most closely matched individuals' immediate situational circumstances (e.g., "the majority of guests in this room reuse their towels").

## **2. Methodology**

This research aims to describe the nudging measures that can be applied in protected areas in order to develop strategies for eco-sustainable goods and services. Our interest is to see how nudging can be applied to encourage tourists to behave responsibly in protected areas. The most relevant research method in these circumstances is the case study. That is, we choose a particular national park in which to undertake the study and then propose measures for other comparable protected areas.

In view of our objective with regards to nudging, a qualitative research method is more appropriate. We opted for a case study which permits an „in-depth investigation of a contemporary phenomenon within its real-life context” (Pettigrew, 1973; Stake, 1995; Yin, 2003” cited in De Massis and Kotlar, 2014). Halinen and Tornroos (2005) also argue that the case study approach is a better choice when the research investigates a new phenomenon which is difficult to study out of the context in which it happens.

The research question is: How can the managers of protected areas influence the behavior of tourists through nudging measures to determine them to consume eco-sustainable goods and services? Therefore, the relevant type for this research is the exploratory case study which is to be used when the objective is to understand how a phenomenon occurs (De Massis and Kotlar, 2014). We attempt to broaden the understanding of nudging in protected area to give managers tools to make tourists act more responsibly.

The case to be studied is that of the National Park of Sibillini Mountain, Italy. This case was chosen because the authors had easy access to the national park's management and because the case offered an appropriate and relevant environment in which to study the matter under investigation.

Usually, the case study method requires a largely qualitative data gathering, with tools such as interviews, documentation review or observation (Soy, 1997). For this particular study, we chose to use secondary documents, observation and an interview with the director of the park. The secondary sources and observation enable the collection of general data about the National Park of Sibillini Mountain. The interview is the method that allows to produce multiple perspectives on a research topic (Jensen and Jankowski, 1991). Also, the interviews have the advantage of being more flexible than other methods. Last but not least, the director of the park is the most representative person in relation with the research topic and research question.

Based on our research question and the goal of the study, we elaborated an interview guide (Table 1) with six questions regarding the measures used by the management of the National Park of Sibillini Mountain to influence the behavior of tourists while visiting the site.

**Table no. 1: Interview guide used in relation with the director of National Park of Sibillini Mountain, Italy**

Nr.	Question
1.	The information provided by the park management to tourists (through sites, web site, information point etc.) are streamlined/framed in such a way that each individual produces decisions alone without the help of an external support?
2.	The information provided by the park management to tourists generate knowledge or a framework on park eco-sustainable goods and services (e.g. granting ecotourism certification for accommodation facilities)?
3.	The park over the years has undergone physical or organizational changes (man made, e.g. the introduction of public transport or cycle paths) to influence the tourists behaviour? If yes, how?
4.	The park use default actions (e.g. introducing the guides or guided program to visit the park) to influence the tourists behaviour? If yes, how?
5.	During the years, have you changed the default actions?
6.	The application of law about eco-sustainable goods and services by the State and the European Union influence positively tourist behaviour?

After collecting the data from the secondary sources regarding the national park and from the manager's responses, we continued with the data interpretation. The transcript of the interview was used to analyse the nudging measures applied in this case and to respond to the research question.

**The case study of Sibillini National Park**

The Sibillini National Park, established in 1993 and managed by the Sibillini National Park organization with its operations centre in the municipality of Visso (MC), is a natural protected area that preserve the Sibillini Mountain. It is positioned in the Marche and Umbria regions and covering 71,437 hectares mainly mountainous terrain.

Glacial valleys, deep gorges and vast mountain meadows characterized the mountain environment. The highest peak is Vettore Mountain (2476m) and there are other mountains: Top of Redentore (2248 m), Peak Devil (2410 m), Priora Mount (2332), Peak Berro (2260), Porche Mount (2233), Argentella Mount (2201 m), Sibilla Mount (2173), Bove Mount (2169 m), Borghese Place (2119 m) and finally Peak Three Vescovi (2092 m).

The Park hydrography included rivers (Aso, Tenna, Ambro, Fluvione, Rio Sacro, Fistrone, Nera and Ussita), waterfall (Cascata Nascosta), artificial lake (Fiastra), natural glacial lakes (Palazzo Bergese, Pilato), and natural gorges (Infernaccio Gorges).

In the park, there are almost 2,000 species of flora (most important Genepi Apennines and Alpen Star Apennines) and over 200 species of vertebrates (wildcat, porcupine, roe deer and the Apennine chamois, golden eagle, goshawk, sparrow hawk, peregrine falcon, etc.).

Inside the Park there are Villages (Borghi) with old towels, churches, sanctuary and abbeys: Acquacanica, Arquata del Tronto, Bolognola, Castesantangelo sul Nera, Cessapalombo, Fiastra, Fiordimonte, Montefortino, Montegallo, Montemonaco, Norcia, Pievebovigliana, Preci, San Ginesio, Ussita, Visso.

In 2002, the park management has adhered to the European Charter of Sustainable Tourism (ECST) and elaborated the environmental interpretation plan in order to promote the sustainable tourism. The interpretation plan of National Park Sibillini Mountain is one of the key tools in order to protect, valorize and properly use of the natural resources, and promote social-economic and cultural characteristics of the protected area through the organic and complete management system.

The interpretation, which establish the planning and designing of accommodation facilities, media and business with precise information, education and cultural entertainment and tourist objectives, is connected with the conservation and management protected area and territory socio-economic development objectives. It is also based on the incentives and attendance principle of various areas that can be obtained not through restrictions or bans, but with the presence of alternative opportunities or strong attractions.

### **3. Results and discussion**

Our research programme explored the nudging measures that can be applied in protected areas in order to develop strategies for eco-sustainable goods and services and how nudge can be used as a breakthrough strategy to encourage tourists to behave responsibly in protected areas.

The first nudging measure that emerged from our interpretation was *the simplification and framing the information* provided by the park management to tourists (through sites, web site, information point etc.), in such a way that each tourists makes decisions alone without the help of an external support. According to Hornoiu (2015) tourism is one of the most powerful forces on the planet that can have a positive influence. The need to simplify and framing information in order to be presented more straightforward and in a way that fits the information decision-making process of the tourists was clearly articulated. "Yes, the park management has set up a web site where the tourist can find under the section "visiting the park" all the useful information to organize their own tourism program without external assistance. More, in the park are established the information points for tourists that want to have full information on all the possibilities for using the existing services and products of the territory, specifying and explaining what services and products contribute to the maintenance of high environmental quality." (Park director).

The findings regarding simplified information and signifier confirm the study results of Viachaslau Filimonau et al (2017) in which they proposed a menu restaurant - that includes next to price, food provenance, nutritional value - as a customer nudging tool which can enable clients to make choice more beneficial from the sustainability perspective. In our case study, the park management has introduced the Sibillini menu in order to promote the short distribution chain between agro food producers and restaurant park. Also, the park

management, through this menu, has developed a true "gastronomic itinerary" based on the flavours and local products - salami (coppe di testa, lonze, capocolli), hams, cheeses (pecorino, ricotta), apples, honey, truffles, marshmallow, chestnuts, chickpeas, flour-wheat, maize, bread baked in a wood oven, biscuits, liquor (mistrà) and boiled wine - discovery. The menu is a typical dishes collection based on local products which is advertised by all restaurants in order to raise awareness among tourists regarding local culinary traditions. The menu describes the basic ingredients of the dish proposed by each restaurant and provide information regarding the raw materials origin place, production methods and the agro and zootechnics local companies' contribution to biodiversity conservation. More, in each restaurant menu there is also a list of other restaurants of the network which are proposing Sibillini menu dishes, therefore the tourists can choose the next "stage of taste." The park director stated: "on the website is advertised... the production that ensures high environmental quality through farms who adhere to the Sibyl menu with a purpose of local dishes promotion and then of the products and raw materials with which the dishes are made."

*Changing physical environment* is other significant nudging tool that have impact on individual's choice. In this respect, we found evidence regarding the fact that park director used this nudging tool to enable tourists make choices from sustainability perspective: "Correct management of the visitors flow has been possible thanks to the interventions made over the years by creating and developing urban tourism infrastructure, like roads, and also hiking trails. The following routes were created in order to respond to the tourist demand but also taking into account the fragility and vulnerability of the park areas:

- The urban tourism infrastructure consists in a path of the Park Great Road (La Grande Via del Parco) and other six routes that covers a network of 450 km, developed on the existing roads, in order to visit all the territory attractions. The path of the Park Great Road (La Grande Via del Parco) is a 190 km itinerary, which can be developed in a couple of days by car, bike or camper. It is divided into four stages: from Visso to Fiastra, from Fiastra to Amandola, from Amandola to Arquata del Tronto, from Arquata del Tronto to Visso.

Instead, the hiking trails - The Sibillini Great Ring (Grande Anello dei Sibillini), natural, mountain bike and trekking trails, are designed and developed to enhance and promote the lesser-known areas.

- The Sibillini Great Ring is a 124 km hiking trail that turn around the all mountain range. It is divided into nine stages fully signalled which allows knowing the historical cultural heritage and landscape of the park, in the areas that are not environmental fragile, in order to conserve the fragile areas from Sibillini Park.

- The natural trails represent an extraordinary opportunity for discover the Sibillini Park even for less experienced hikers and begin from historical centres of the countryside and are intended to raise awareness of an important aspect of local realities: the fauna, flora, history, local traditions. Two of the 18 nature trails are accessible also for disabled tourists.

- Transhumance activities in Sibillini Mountains, over the years, have created a dense network of paths to higher altitudes, resulting 17 itineraries in order to discover the different landscapes and nature that the park preserves. For each itinerary, there are provided information regarding the time and the route description.

- The Sibillini Great Ring (Grande Anello dei Sibillini) mountain bike itinerary, which is not included in the "classic" itineraries can be easy made in four or five days and it allows to discover the park suggestive attractions. The itinerary starts from Visso and crosses four municipality: Fiastra, Amandola, Montegallo and Norcia."

Therefore, through the entire management system, the park administrators direct the tourist flows in less sensitive areas or otherwise restrict access to sensitive areas, not through the prohibitions system, but through a incentives system, so when they propose the certain routes, rather than others, they advertise as marked routes and viable autonomously, in complete safety, even without accompaniment. The park management, through information regarding tourist behaviour code in the park and the tourist attractions, on one side increase the offer indirectly through various tourist routes and on the other side direct tourist flows towards a particular areas.

We report also that we found evidence regarding *changing to the default policy* as a nudging measure applied by the park management to influence visitors' choice. For example, one way to nudge tourists into visiting sensitive areas was by offering guided tours instead of advertising tours without accompaniment." The most fragile paths to significant attractions, which are maintained less accessible by park management, but not prohibited, e.g. Pilate Lake (Lago di Pilato) can be visited with the park guides in order to monitor tourism activities, raise awareness and provide information about the tourists behaviour code (e.g. forbidden dogs and lighting fires, waste management etc.). " (Park director). The park management has trained its own park guides as environmental interpreters, which already are certificated as montain guides or have specific professionals qualifications, in order to be the interface between the park territory and tourists. They are providing information and raising awareness activities, transferring an educational message designed to involve, empower tourists and residents of the park, to take favorable attitudes towards the environment. "Therefore, environmental interpreter is a 'mediator' who, on the one hand makes the visit an unforgettable experience by revealing the secret aspects, less visible in the area, regarding not only landscaped or morphological aspects, but also cultural, traditional aspects etc. and, on the other hand, transmits an educational message, trying to create an empathy with the visitor, in order to demonstrate that his attitude towards the visited area is a responsible one. Environmental education, through interpretation or other techniques plays a fundamental role for the park in order to develop responsible attitudes towards the visited area." (Park director)

According to Hornoiu (2015) the staff of protected areas is formed by rangers, wildlife specialists, managers who must be able to effectively interact and work with the local communities' members and tourism organizations.

Using the *descriptive social norms* was another nudging measure that park management applied to influence tourists' consumption behaviour. We found evidence that they informed tourists that the majority of other tourists are consuming eco certified products and services of the park:" In my opinion, undoubtedly the tourists rely to all that is certified, for example, the agri-food products, brands like DOC (Denominazione di origine controlata), IGP (Indicazione geografica protetta) etc., are very well known and recognized and informing tourists that the majority of other tourists consumed this kind of certified products influence enough the behavior and the tourists consumption willingness." (Park director)

We can say, as a general rule, that tourists consumption behaviour is positively influenced by the presence of eco certified products and services which confirm the statement made by Olander and Thøgersen (2014) that considered eco-labels as part of the choice architecture and considered them to be nudges.

### Conclusions

The aim of this article was to examine that the nudging measures implemented by protected areas' park management can be seen as a breakthrough strategy for developing eco-sustainable goods and services. For this, we opted for case study of Sibillini Mountain Park as qualitative research method, because we investigated a new phenomenon - nudging measures used by managers in protected areas to determine tourists to consume eco-sustainable goods and services - which is difficult to study out of context in which it happens. Based on the secondary documents, observation and the interview with park director, we found that the park management is using nudging measures - *simplification and framing of information; changes to the physical environment; changes to the default policy; the use of social norms* - to influence the tourist behaviors in order to make tourists act more responsibly and to consume eco-sustainable goods and services. The results of this study contribute to literature by revealing the nudge tools that can be applied by natural protected area's managers in order to develop strategy for eco-sustainable consumption.

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## COMPETITION FOR INNOVATION IN THE FINANCIAL SOFTWARE INDUSTRY – A RESEARCH ON HACKATHONS

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### Abstract

In today's interconnected and globalized economy, the concept of hackathon is a phenomenon in its boom days. Companies from many sectors of activity organize such events in order to drive innovation and gain access to cheap technology. The present paper is the result of a survey-based research aiming to describe the motivation of participants at such events, their view on how hackathons help them develop new skills and find new ideas, how a hackathon is organized in a financial software company and what does the concept of "hackathon" mean for the participants. Results showed, among other things, that the organization of a hackathon in a multinational corporation depends on the region where the event is held (participants feeling the effects differently depending on the office in which they work) and it is not easy to reach standardization in such an event.

**Keywords:** Hackathon, technology, innovation, financial software industry

**JEL Classification :** L86, O31, O32

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### Introduction

Appeared in the high-tech industry during the Internet bubble, the event called "hackathon" helps companies across an ever increasing palette of fields of activity to innovate and participate in the creation and/or development of new technologies. Hackathons have become a preferred way to tackle real-life problems and meet different needs of companies and people, from the most basic ones (like the need to interact with the others) to more complex needs (like launching a new prototype). A source of ideas, these events find their power in the collaboration which can be generated inside a team of members with different backgrounds; multinational corporations use them to help create stronger networks inside their structures. "Hackathons also have the potential to influence corporate culture and be used in external marketing efforts to position the company as a savvy digital workplace" (Gotta and Moyer, 2016).

Such events are associated with characteristics like "new", "fresh", "innovative", and "fun". However, it is not easy to organize a hackathon: it requires intensive preparation, a good

understanding of the local culture and a good timing. It is also difficult to determine people to dedicate their time to such an event because it is very often felt like a competition and people fear they do not have the needed skills to succeed. However, once passed this obstacle, the hackathon can prove useful to generate new ideas and start new projects. Today, the collaborative aspect is much more important than the competitive aspect. Finance has long been seen as the area where technology investments are of great magnitude but digitalization is slow (systems are changed with difficulty). However, all this is starting to change and hackathons are a piece of the new order: financial institutions and financial software companies have realized what the benefits of such events are and have become one of the most important player in the organization of hackathons in the world. The current paper describes the concept of hackathon in detail, focuses on its organization through literature review and survey-based research, gives some high-level statistics of hackathons in the world, and draws some conclusions on the aspects discussed.

## **1. Literature about hackathon**

### **1.1. What is a hackathon?**

A hackathon is in the vast majority of cases a full-day event (although it could last up to a week) in which developers and other people work together in software and/or hardware projects for different kind of purposes (purely professional, educational, social, and so on). A union between “hack” (to program something catchy, contagious) and “marathon” (working on the project intensively, nonstop), the concept of hackathon has grown in popularity in recent years (at a global level) even though it appeared more than a decade ago (the first “Hack Day” at Yahoo, for example, was held in 2006) (Wikipedia, 2017). The word “hackathon” is known to have emerged during the dot-com bubble and can now be characterized as a phenomenon in its boom days, after conquering the high-tech world in the years 2000s, together with the Internet. Any developer interested in a specific idea can now find pieces of code on the Internet from which to start his/her own project.

So who participates in a hackathon? It is true that developers do participate, but even though they represent an important segment of the participants, there could be other people involved in a hackathon: from functional analysts to project managers, from designers to testers, from simple supporters who provide the team with food and water to subject matter experts from different fields of activity. According to data collected from [hackathon.com](http://hackathon.com), 43% of participants are professionals, 21% are students, and almost 10% are entrepreneurs. It all depends on the type of hackathon and the conditions of the event: there are hackathons in which the eligibility criteria are very strict, and there are hackathons where there are no restrictions in what the participants are concerned.

### **1.2. What is the purpose of a hackathon?**

The concept of hackathon has gained momentum when investors and companies all over the world realized that they can access cheap innovation and easy funding in order to create and/or participate in the development of new technologies. Such a simple event can have contributions in huge successes, like entire companies created from projects presented in the hackathon. Companies can innovate faster and cheaper, and we should look at hackathons through the positive energy that these events bring in the organization or community in which they are hosted. A hackathon is a collaborative event which drives forces and produces results (synergies appear between different departments).

The hackathon does not necessarily have to end with a complete solution to the problem exposed in the subject of the event or assumed by the project: it is all about participating, getting involved in the organization's or community's problems, learning something new along the way and embracing new ideas.

Hackathons can also be used as a marketing tool (to increase brand awareness) or as a human resources tool (develop competences and creativity, attract or identify talent within the organization); even though many companies use them to create new products and services, the benefits of hackathons are not limited to this (Laudet, 2017).

### **1.3. How is a hackathon organized?**

The hackathon is a simple concept, but organizing such an event often requires serious efforts: probably the largest hackathon in the United States in terms of participants was MHacks, run by the University of Michigan (part of Major League Hacking, a national collegiate hackathon league), with over 2,000 people taking part in the event. From the point of view of logistics, the resources have to be considerable, but the most difficult thing in a hackathon is to attract participants and make them work for the idea. For example, many people do not know what a hackathon is and think that you need programming skills to participate in such an event. Others feel that they are not smart enough or innovative enough to take part in such an event; or it's just that they feel they do not have the skills needed to succeed, just like in any other competition (Tauberer, 2014).

Be it in a multinational company or in a local community, hackathons usually start by a presentation in which the subject (if one exists) or the concept is exposed to the interested parties. After the presentation, participants form teams and submit their ideas; the hackathon usually has a dedicated site and the registration is online.

The hackathon can take from a few hours to several days; the organizers usually provide drinks, food and sleeping bags. The team programming something can come to the event with parts of the code already prepared, especially for full day hackathons. The hackathon ends with a demonstration of the projects by each team participating in the event, in front of a jury. Prizes are often given to the winning teams and can vary from several hundred dollars to even one million dollars, like the hackathon organized in 2013 by Salesforce, the leading customer relationship solutions provider.

The presentations of the projects created in a hackathon are intensely promoted via social media, through blogs or photo/video releases, because the aim is to make the ideas popular and encourage other people to develop on them and even start businesses from them.

At the end of the hackathon there is more work for organizers: they have to take note of what went right and what went wrong and sometimes they make surveys among participants in order to receive feedback on how to improve future events.

### **1.4. Hackathons in the world**

Hackathons can find applicability in many fields of activity, from entertainment to fashion industry, from electronics to retail, from social sciences to life sciences, from administration to public transportation. The variety of sectors that adopt hackathons is in continuous expansion. Finance is one particular sector which makes serious progress in transforming its business through digitalization, and hackathons are growing in popularity.

Depending on the institution organizing the event, we can classify hackathons in: hackathons organized by central or local authorities, by multinational or local companies, by non-profit organizations, by education and health institutions, and so on. City councils

and even libraries organize hackathons, and so do European institutions. Hackathons can be classified also depending on the type of participants: students, women, people from a certain community, people with a certain social status. Only one quarter of the total hackathons organized in 2016 are internal ones (the rest being public).

Even though the United States and the United Kingdom are world leaders in organizing hackathons, this event is not the exclusivity of the English-speaking countries. More than 100 countries around the world are officially known to have hosted such events, with Germany and France leading the trend in continental Europe (Laudet, 2017).

## **2. Research about the hackathon in a multinational financial software company**

### **2.1. Research hypotheses**

Three main hypotheses on research variables have been formulated:

H1: Organization of a hackathon in a multinational corporation is affected by regional characteristics and resources

H1.1: The way hackathon participants feel the help received from hackathon organizers in understanding the purpose of the event is influenced by the region where the event is held.

H1.2: The emotional support received by the hackathon participants from the organizers of the event is influenced by the region in which the event is held.

H1.3: The opportunity of the time chosen for the hackathon is perceived differently by the participants depending on the region where the event is held.

H1.4: The resources provided by the organizers of the event to the hackathon participants vary depending on the region where the event is held.

H2: Participants in a hackathon see differently the inclusion of the event in their career development depending on their gender.

H3: Hackathon participants use this type of event in order to improve their skills and their career.

H3.1: There is a positive correlation between the way participants see the development of their skills through hackathons and their career development.

H3.2: There is a positive correlation between discovering new ideas through hackathons and developing skills.

### **2.2. Research method**

The research method chosen for this paper is the survey, which is the most recommended method of research when people are the main source of information. The questionnaire is the technique employed here and it was applied to all the employees of a financial software company who participated in one of the two hackathons organized so far by the company.

### **2.3. Data collection method**

The theoretical support for this research was given by the review of the literature existing on hackathons, mostly being available on the Internet. Other support materials consisted in internal documents of the company that organized the hackathons in the 2015 and 2016 editions (including e-mail messages and articles found on the intranet of the company). The actual data was collected through the use of an online questionnaire with five-choice Likert spectrum, the answers ranging from “strongly agree” to “strongly disagree”.

**2.4. Results of the research**

**2.4.1. Descriptive statistics**

The questionnaire was sent to a total number of 501 employees (in the financial software company chosen as subject for the paper) who have participated in an internal hackathon; the total number of actual responses was 185 (37% response rate). The results were interpreted using Q Professional software (V5.1.2.0).

In descriptive analysis, we used frequency distribution and frequency percentage tables. Out of the 185 respondents, 79% were men, leaving the women respondents to a total of only 21%. More than a half of the employees who responded to the survey were aged between 21 and 30 years and 67% are employed for less than five years.

**Table no. 1: Frequency of employees by age and job tenure**

Age	Job tenure	Less than a year	Between 1 and 5 years	Between 5 and 15 years	More than 15 years
Between 21 and 30 years		46%	72% ↑	24% ↓	0% ↓
Between 31 and 40 years		46%	23% ↓	60% ↑	40%
Over 40 years		8%	4% ↓	16%	60% ↑
Total		100%	100%	100%	100%
Total sample; Unweighted; base n = 185					

At the same time, the number of developers or technical consultants represented 80.5%, which means that only 19.5% were functional consultants or other type of consultants (fig. no. 1); this indicates a concentration of developers among the hackathon participants which seems specific to software providers. General data from hackathon.com indicate however that, in 2016, the majority (59%) of the participants at internal hackathons was actually represented by non-technical staff.



**Figure no. 1: Hackathon participants by background**

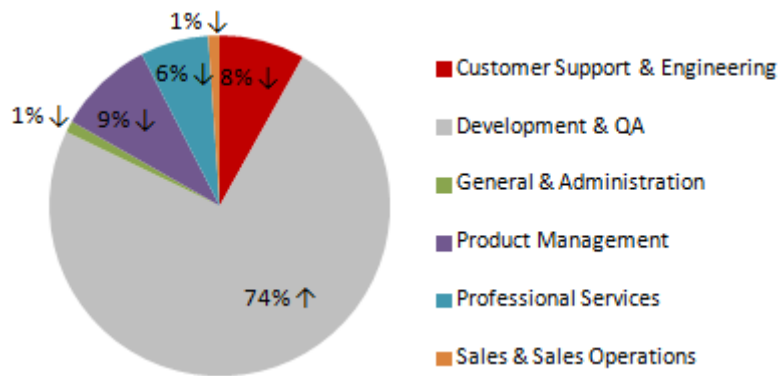
The above statistics indicates that there is currently a lack of benefits from collaborative participation at this financial software company’s hackathons. However, considering the fact that the hackathon has been organized only on two editions and that only 38% of the respondents strongly affirmed that they knew what a hackathon was before receiving the invitation from the organizers, it is expected that these figures ameliorate as the event gains in popularity among the employees.

**Table no. 2: Hackathon familiarity among technical and non-technical staff**

Hackathon familiarity	Non-technical staff	Technical staff
Strongly Agree	25%	42%
Agree	56%	44%
Other responses	19%	14%
Total sample; base n = 185	100%	100%

While the figures for hackathon familiarity are close between technical and non-technical staff, a deeper look shows that the technical staff is more familiar with this concept. This is expected since the concept appeared in the high-tech industry more than a decade ago and involves programming in the vast majority of cases.

In what concerns the statistics about the departments in which the respondents work, around three quarters of the hackathon participants work in Development & Quality Assurance (QA), and only 8% are from Customer Support and Engineering teams (fig. no. 2). These results come to confirm the strong presence of the technical staff in this company’s hackathon and somehow contradicts the general trend in the hackathon organization industry, which focuses on clients and therefore has an important Customer Support contingent.



**Figure no. 2: Hackathon participants by department**

Only 1% of the respondents to this survey work in Sales & Sales Operations, 1% also in the General & Administration departments, and none of them come from the Software as a Service (SaaS) team. For a company which has a strategic pillar of customer centricity, these aspects need to be ameliorated in the future.

In what the motivation of the participants is concerned, employees from Europe and Asia agreed (88%) that they registered in hackathons because they are fun events, while those from United States disagree in a proportion of 33%. However, the main motivation of participating in a hackathon is the desire to create something new, to innovate: achieving this feat brings public recognition of someone skills and helps in opening new horizons in that person’s career. Since this was a research on an internal hackathon and the prizes were not very high, only 45% of the participants considered the financial reward as a motivation to participate in a hackathon (with a low of 33% in the United States).

**2.4.2. Pearson's Chi-square Test for Independence**

In order to demonstrate the dependence between research variables, we used the Pearson's Chi-square Test (Agresti, 1990).

Testing the hypothesis H1.1 of this paper we have found out that the way respondents agreed that they received help from the organizers on discovering the event's purpose was influenced by the region in which the event was organized.

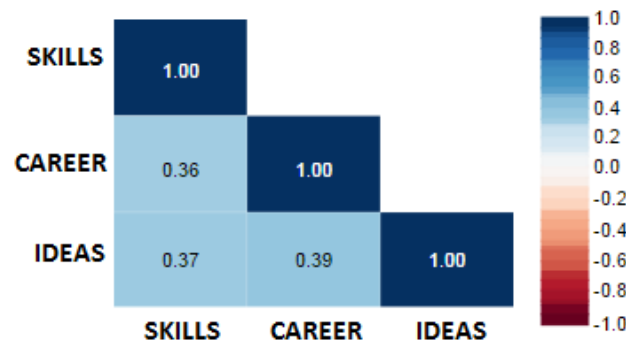
**Table no. 3: Chi-square results**

Hypothesis	Chi-Square	Degrees of freedom	Effective sample size	p-value	Level of significance
H1.1	18.8	8	185	0.02	0.05
H1.2	39.349	8	185	0.000004	0.05
H1.3.	15.82	8	185	0.045	0.05
H1.4.	52.931	8	185	<0.000001	0.05
H2	12.808	4	185	0.01	0.05

In the same way, hypothesis H1.2, H1.3 and H1.4 are accepted. Regarding hypothesis H2, the same test shows that the gender of participants influences the perception of the way a hackathon contributes to career development. 61% of the male participants believe that such an event can help their careers, while only 41% of the women believe the same thing.

**2.4.3. Correlation Matrix**

To test the hypothesis (H3) we have used a correlation matrix, which shows a positive correlation of 0.36 between the way respondents assess the development of their skills through hackathons and the effect that this development has on their career.



**Figure no. 3: Correlation matrix between skills, career, and new ideas**

A positive correlation (0.37) exists also between developing your own skills through hackathons and discovering new ideas. Both skills and ideas are important in order to develop a career, especially in the financial software industry.



## Conclusions

The hackathon concept has appeared in the high-tech industry more than a decade ago, but it still remains a puzzle for many people. A small percentage of the non-technical respondents to this survey strongly affirmed that they knew what a hackathon was before participating in the event; and this is a statistics for the participants. 41% of the respondents think that you need programming skills to participate in a hackathon, which contradicts the definition of the concept and the fact that the global trend is to include people with a large variety of backgrounds. Three quarters of the respondents also think that hackathons are actually competitions. The financial software company chosen as a subject for this paper still has work to do in order to benefit from the collaborative aspects of hackathons. Many of the participants at the internal hackathon are developers and they do not seem to use the ideas of non-technical people. The global trend is to create a mix of people, enrich the corporate culture and enhance internal professional networks through hackathons.

From an organizational point of view, other improvements are required. While the hackathon might seem a simple and fun event, its organization is not easy. Especially for hackathons in multinational organizations where each branch has its own “competition”, it is difficult to reach standardization and satisfy all employees. For the current research, the event chosen as an example is only at the second edition and might not have all the details established clearly: it is an idea to which more and more people adhere. Respondents from the United States felt in a proportion of 50% that they did not receive all the support needed from the organizers. 33% of the participants from France and 20% of those from the Philippines thought that the time chosen for the event interfered with their schedule. In total, only 28% of the employees responding to this survey and taking part in the company’s hackathon considered that they had everything they needed in order to implement their idea.

The statistical tests showed that the region in which the event is held influences the results of the organization of the event. For this financial software company, a good solution would be to collaborate with a specialized company in organizing the hackathon, but it all depends on the resources allocated to this event.

In what the motivation of the participants in an internal hackathon is concerned, this aspect is not strictly related to money, as this research also suggests: it is more related to the positive energy and collaboration that it brings, to the possibility of creating something new that will immediately attract masses, to the public recognition that professionals search and to the opportunities they offer afterwards. We can make the parallel with the open-source movement, where professionals create and improve software programs without expecting an immediate gain; instead, they expect: peer recognition, career and learning incentives, improved performance at work, and having fun while creating something new (Vogelsang, 2010).

As future directions of the research on hackathons, more in-depth analysis can be realized by following the four main points revealed by the current paper: degree of knowledge and meaning of hackathons, motivation of participants, organization of hackathons, and personal development following such events. The purpose of the current paper is not to analyze the profile of a hackathon participant nor to quantify the effects of a hackathon on the development and career of the participants, so more could be realized down this road.

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## **SWOT ANALYSIS IN THE STYRIAN VOLCANIC REGION – ENTERPRISES AND TOURISM**

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### **Abstract**

The Styrian Volcanic Region is located in the south eastern part of Styria in Austria and consists of 33 communities and 86.162 inhabitants. The regional management and the support of the European Union proclaimed the idea of the Styrian Volcanic Region. From this moment a new direction and self-confidence were given. The focus was not the industrial mass products but the high quality, innovative and sustainable products from the region. The brand Styrian Volcanic Region is a seal of quality in the fields of agriculture, tourism, craftsmanship and culinary products.

For a successful regional management a high level of skills are required. The core products of the Styrian Volcanic Region are culinary delights like ham, pumpkin seed, chocolate and vineyards. The vision of the region until 2025 is to have a sustainable energy program with the aim to produce regional energy such as heat, fuel and electricity.

The SWOT analysis shows a vivid picture of the Styrian Volcanic Region concerning tourism and enterprises. The research of 100 companies is worked out with questionnaires. The strengths and weaknesses of the region are shown but also the synergetic effects of prosperous collaboration between tourism and enterprises. Tradition and authenticity are key elements for visitors and inhabitants.

The latest challenge of the region is the consolidation between the Styrian Thermal Region and the Styrian Volcanic Region. The co-operation between the enterprises and tourism creates a high level of quality and above all they contribute in creating jobs and economy.

### **Keywords**

regional management, SWOT analysis, resources, strategic development and challenges

### **JEL Classification**

M 20 M 30

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### **Introduction**

The Styrian Volcanic Region is located in the south eastern part of Austria in the federal province of Styria. The region has border with Slovenia and Hungary. According to Ober et al. (2013) the Styrian Volcanic Region is partly found in the “Thermenland Steiermark” -

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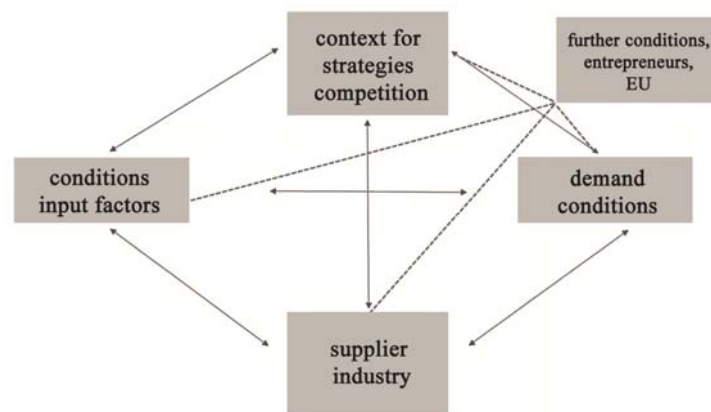
the Styrian Thermal Region. It was founded in 1995 and is promoted as a regional development. The area is marketed externally under the three main focuses of culinary delights, handcraft and vitality. The Styrian Volcanic Region has a concept of tourism which can be derived from the given landscape structure.

According to Krotschek et al. (2013) the territory in the south eastern part of Styria is geologically much larger than the political Styrian volcanic landscape, which is marketed by the association to promote the Styrian Volcanic Region. While the area of the once active volcanoes stretches to Hungary and Slovenia, the centre of the Styrian Volcanic area, politically speaking, lies in the districts Hartberg/Fürstenfeld and Südoststeiermark. The area of the Styrian Volcanic Region currently includes 33 communities.

**Theoretical aspects**

**1. Scenarios – Definition and types**

Theories of trade purpose include land, resources, inhabitants, skill labor, technology, culture and government.

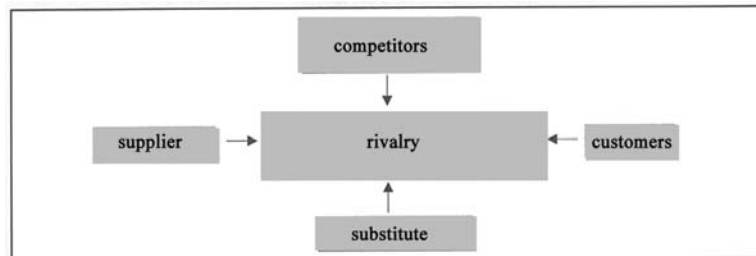


**Figure no. 1: The Diamond Dimensions**

*Source: authors` design based on Porter (2000)*

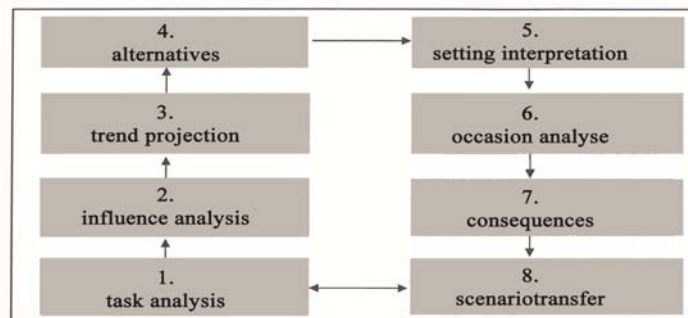
The Diamond of Michael E. Porter (Porter, 1990) represents the field that the Styrian Volcanic Region has implemented in the regional management. According to Ober (2016) the factor conditions of the Styrian Volcanic Region lies on culinary delights like the chocolate factory “Zotter”, the vinegar factory “Gölles” for the volcanic ham production factory “Vulcano Schinken” and on handcraft like traditional costume fashion “Trachtenmode Trummer”. The demand condition of the Styrian Volcanic Region is locally and companies are exporting their products. Furthermore the local market helps companies to anticipate global trends. According to Krotschek (2013) until the year 2025 the Styrian Volcanic Region has the vision to implement a sustainable resource change in the areas of life culture, habitat and regional economy and to protect these three areas in the long term. Supporting and related industries are strengthened and suppliers are global competitors. Traditional handcraft in the region plays a very important role for the national economy. The three main focuses of the region are the thermal baths and spas, culinary delights and vitality.

Porter’s Five Forces (Porter, 1999) assumes the competitive power in business situation. The supplier power within the brand Styrian Volcanic Region as a seal of quality in the fields of agriculture, tourism, handcraft and culinary delights, companies can present themselves to the outside. The buyer power consists of the respective handling and the knowledge about regional products of the region. Concerning the competitive rivalry there is a fee for the participation. This is necessary if many companies are offering the same products. The treat of substitution and treat of new power preserve a favorable position within the Styrian Volcanic Region.



**Figure no. 2: The five competitive forces**  
 Source: authors` design based on Porter (1999)

There are different definitions about scenarios. Following the example of Reibnitz (1991) the scenario techniques of the Styrian Volcanic Region can be analyzed as following. When Austria joined the EU, starting models and visions were created. They included a focus on innovation and the reorientation of their own space and their inhabitants. The region is largely financed by membership fees of the single districts, private companies and the country. Due to its positive and raising growth, the development is a plus for the region. The success factors and opportunities within the Styrian Volcanic Region has not only developed from a small region with the aim of creating a new identity by means of culinary delights, handcraft and vitality but also until the year 2025 100% of the energy required, such as heat, fuel and electricity, can be produced and restored by itself in a sustainable way. According to Krotschek et al. (2013) the aim is to promote the regional economy by using domestic energy and increasing energy efficiency.



**Figure no. 3: scenario analysis**  
 Source: authors` design based on Geschka, 1990

The eight steps after Geschka (1990) start with the task and influence analysis of the Styrian Volcanic Region. Leisure time is the main aim in the Styrian Volcanic Region and is one of the most important success factors.

According to Ober et al. (2013) the Styrian Volcanic Region focuses on the following priorities: culinary, handcraft and vitality.

These success factors stand according to Ober (2016) against alternatives and challenges. It does not always work to successfully position a region, especially in rural areas to reach an economic achievement.

In the future, according to Krotschek et al. (2013), there will be an increasing population concentration around the cities and depopulation in rural regions. Under certain conditions such a process can be defused or stopped through tourism. The Styrian Volcanic Region shows that investments can create booming tourism, to secure hundreds of jobs and to contribute to the lasting survival of individual regions.

A further occasion is the heritage according to the Meisterkultur (2016) which is based on the idea that the protection of immaterial heritage is unavoidable. It includes practices, representation, forms of expression, knowledge and skills, communities and where appropriate, individuals as part of their cultural heritage.

## **2. Criteria related to the scenario transfer**

The Austrian National Agency (2016) requires the self-classification of the object as a cultural heritage by the applicant, a proof of the tradition and the heritage must comply with the human rights convention and the principle of sustainability.

The scenario transfer is the co-operation of tourism and enterprises. This plays an essential role in the shaping of a region. The main factors are: Landscape and infrastructure, image and transparent manufactures as a frequency inverter.

## **Methodology**

Empirical research had the aim to increase the quality. The methods were the observation, the questionnaire, the interview, the content analysis, the discourse analysis and non-reactive procedures. Depending on the research question and the research objective and the following appropriate research method was chosen. The goal of the methodology was to orientate itself on the research question and not on the opposite.

First five interviews with the biggest company owners were made. 100 companies were searched with questionnaires. In february 2017 telephone interviews were made with structured interview questionnaires.

In order to answer the research question, the qualitative methodology was selected by means of expert interviews. Five main companies in the region, which are all involved in tourism and in the region, were interviewed.

There is an interview guide that covers five to six different areas. The answers can be released by the experts individually. For the quantitative method 100 telephone interviews with questionnaires were made. The focus here is rather on the subjective opinions, whose tasks are a deeper analysis of the content.

**Case study**

**SWOT analyses of the Styrian Volcanic Region**

The letters SWOT stand for strengths, weaknesses, opportunities and treats. According to Mintzberg *et al.* (1998) the basic design model emphasizes the external, technological, economic, political and social aspects. The basis oriented from following two books: *Leadership in Administration* by Philip Selznick (1957) and *Strategy and Structure* by Alfred Chandler (1962). These books brought together the internal state and the external expectations (Chandler, 1962, 47). Every region or company is influenced by internal or external forces according to Houben *et al.* (1999). According to Mintzberg *et al.* (1998) the objective, procedure, individual strengths, weaknesses, opportunities and threats, must be defined. Furthermore the individual responses and dialogue lead to developments to move forward. Organizations can be differentiated within three basic fields. These are the key part, the prime coordinating mechanism and the type of decentralization.

**1) SWOT analysis of tourism**

**Table no. 1: SWOT analysis and results**

<p><b>Strengths</b>                  Variability in leisure and offer                  Center of the Styrian summer tourism                  Most important spas of Styria                  Touristic leading enterprises as a center of ideas for the whole region                  Vineyards                  The highest working to capacity of the touristic enterprises in Styria</p>	<p><b>Weaknesses</b>                  Few overnights of foreign tourists                  Discontinuing frequency of spa tourism                  Daily tourism (no overnights)                  Weak coordinated touristic marketing                  Few family offers                  No special youth offers                  High competition between the spas</p>
<p><b>Opportunities</b>                  Improving summer tourism                  Concentration to foreign markets                  Strengths of the daily tourism                  Special offer for target groups to improve investments in the traffic industry                  Reflecting on investments for the touristic infrastructure</p>	<p><b>Treats</b>                  Declining of the spa tourism without new attractions                  Saturation of consumer demands at the spa tourism                  Uncoordinated touristic and cultural marketing                  Absence of foreign tourists</p>

**2) SWOT analysis of enterprises**

**Table no. 2: SWOT analysis and results**

<p><b>Strengths</b>                  Positive development in the acquisition rate                  Little business structure                  Enormous increasing in the service sector                  Low unemployment                  High importance of agriculture, forestry and handcraft                  The biggest agricultural areas of Styria                  Specialization of food, culinary products</p>	<p><b>Weaknesses</b>                  Economic change of structure                  View modernized and export oriented branches                  High season depending                  Relative high rate of daily commuters                  Low gross income                  Industrial establishments are only punctual of importance</p>
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Production of articles with regard to the high employment as an industrial branch Many independent retailers and new establishments	Regional dependent building line Low technical level of the economy Declining of employees at the primary sector
<b>Opportunities</b> Regional working places Improving the regional job market Minimizing the daily commuters Cultivation of high quality products Long term confession to the small and medium sized establishments Low unemployment rate	<b>Treats</b> Reduce of employees in the prime sector High costs and loss of purchasing because of the daily commuters Higher wages outside of the home district Low standard of wages High part of part time farmers that prevent to create new innovative cultures

**Results**

An interpretation of the questionnaire answers shows that the Styrian Volcanic Region has good handcraft and combines these with tourism. The empirical investigation shows that co-operation is possible here in the region and that a strategy is to be pushed accordingly. All five experts agreed that the cooperation between tourism and enterprises in the region create additional jobs and attract more tourists and creates jobs. The following statistical figures of unemployment in Austria, Styria and the Styrian Volcanic Region are used for a more detailed analysis. In 2016 the unemployment rate of the Styrian Volcanic Region was lower than in Austria and in Styria.

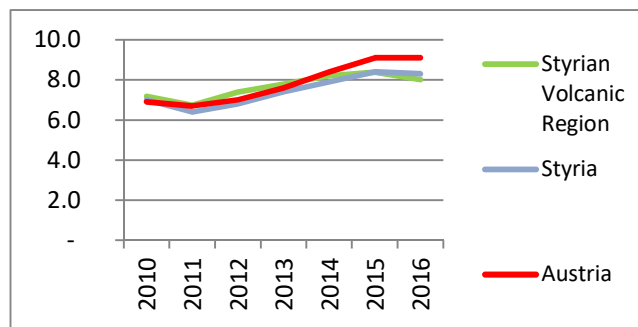


Figure no. 4: Results of unemployment research

Table no. 3: Statistic of unemployment within the SVR

Year	Styrian Volcanic Region	Styria	Austria
2010	7,2 %	7,0 %	6,9 %
2011	6,7 %	6,4 %	6,7 %
2012	7,4 %	7,4 %	7,0 %
2013	7,8 %	7,8 %	7,6 %
2014	8,2 %	8,2 %	8,4 %
2015	8,4 %	8,4 %	9,1 %
2016	8,0%	8,3 %	9,1 %

Source: authors based on AMS



The research of overnights show that in 2016 within the Styrian Volcanic Region only 8,5% of the overnights are not from Austria. Within Styria 39.90 % of the tourist's overnights are from tourists from abroad.

**Table no. 4: Overnight statistics in the SVR**

Overnights.	2012	2013	2014	2015	2016
Total in SVR	1.045.099	1.094.176	1.098.168	1.091.919	1.114.769
from Austria	971.703	1.017.475	1.023.234	1.005.443	1.019.722
other countries	73.396	76.701	74.934	86.476	95.047

Source: authors based on Statistik Austria

**Table no. 5: Comparison of overnights from tourists (Austria and other countries)**

Overnights.	2012	2013	2014	2015	2016
SVR tourists from Austria	93,00 %	92,50 %	93,20 %	92,10 %	91,50 %
SVR from other countries	7,00 %	7,50 %	6,80 %	7,90 %	8,50 %
Styria tourists from Austria	62,40 %	62,40 %	61,40 %	60,80 %	60,10 %
Styrother countries	37,60 %	37,60 %	38,60 %	39,20 %	39,90 %

Source: authors based on Statistik Austria

### SWOT Analysis of the Styrian Volcanic Region

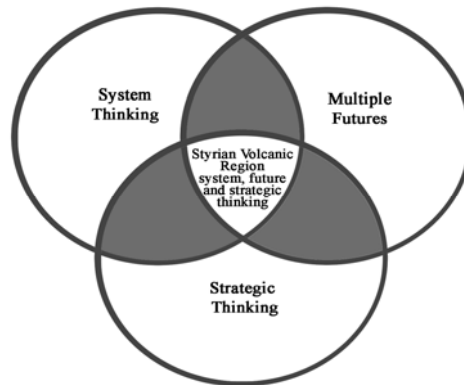
**Table no. 6: SWOT analysis and results of the SVR – Source: authors**

<b>Strengths</b> The brand Styrian Volcanic Region Variety of companies Innovation Regional media reports about regional activities Ability to add value to products Working capital	<b>Weaknesses</b> Weak income and wages Safety issues in factories Specification of target groups
<b>Opportunities</b> Growth in niche markets Brand marketing Companies stay preserved Jobs are created New tourist attractions Transparent enterprises Increases awareness Symbioses and connections are created Integration of the population	<b>Threats</b> Loss of authenticity by adaptation to the tourist Resource decline Loss of credibility due to an oversupply of volcanic products Financial, economic situation

Source: authors

An analysis of the 100 qualitative expert interviews results shows advantages like an excellent internet appearance, motivation, innovation, collaboration and increasing self-esteem of companies.

The authenticity of the Styrian Volcanic Region is an important criterion in comparison with other regions for tourists. The focus in the future of Vocational Business and Training (Melbourne, 2002, 12) states what the Styrian Volcanic Region has developed.



**Figure no. 5: Results of the SWOT analysis of the SVR**

Strategic thinking between tourism, handcraft and culinary delights, involving the local population, creates jobs and brings additional tourists. Together with the regional media, the regional development of the Styrian Volcanic Region succeeded in inspiring the local population with their vision of a sustainable future-oriented innovative region. System thinking and co-operation with other regions is important. Innovation, system and strategic thinking contribute to the future of the region. It motivates companies to develop innovative ideas and products that enable new networks.

**Conclusions**

As a strategic approach to a successfully positioning of the Styrian Volcanic Region there are following fundamental points: Collaboration of enterprises and tourism is creating awareness and sustainability, Tradition and regional heritage as important points of sale and the use of distribution through regional media, marketing and networking.

Joint projects are identic to support the marketing concept in order to act as an advertising partner. Enterprises go hand in hand with marketing, which can be used optimally.

The companies and the local population are fully committed to their region.

The core competences of the Styrian Volcanic Region are tourism, craftsmanship and culinary delights. They are looking forward to an upcoming modern regional management.

The development potential of the region can be improved in the coming years with the co-operation of the Styrian Volcanic Region and the Styrian Thermal Region. The success will depend on the strategies pursued strategically in the coming years.

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## **TECHNOLOGICALLY ENHANCED RELATIONSHIP MARKETING BY USING MODERN AUTONOMOUS CONVERSATIONAL AGENTS**

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### **Abstract**

Advances in computing and internet fields brought by the digital revolution changed fundamentally the business world, companies that embraced the changes managing to reduce costs and increase innovation. In the last two years, advances in artificial intelligence (AI) together with the increased availability of commercial artificial intelligence systems resulted into a new generation of autonomous conversational agents or chatbots that engage the user directly and in a personal manner. Using these autonomous conversational agents paired with the exponentially increasing instant messaging platforms led to the creation of modern chatbots, a tool to handle two-way communication between company and customer instantly.

This article aims at identifying and exposing the ways companies can use chatbots to empower their relationship marketing efforts and the main aspects to be considered when doing that.

**Keywords:** relationship marketing, marketing communication, autonomous conversational agents, chatbot, cybermarketing, artificial intelligence, innovation

**JEL Classification:** M31, D83, C88, L86

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### **Introduction**

Communication, according to Mehrabian (1972), is "any act by which one person gives to or receives from another person information about that person's needs, desires, perceptions, knowledge, or affective states. Communication may be intentional or unintentional, may involve conventional or unconventional signals, may take linguistic or non-linguistic forms, and may occur through spoken or other modes". For Stănciulescu (2003, in Florescu et al., 2003) communication implies the transmission of information as symbolic messages by a source to one or more receivers through various channels.

The communication process is defined by numerous authors and the most used representation of it has four major dimensions: Sender - Message - Channel - Receiver (the SMRC Model of Communication - Berlo, 1960). This means that every communication process has an emitter (Sender) that emits a Message, using a Channel to transport that message to its intended destinatory(ies), the Receiver. In a two-way communication process

the Receiver can provide Feedback as a Return Message to the Sender (Stănciulescu, 2003, in Florescu et al., 2003), either using the same channel, if available, or a different one.

In marketing especially, communication is important, as a main component of the marketing mix, playing a primary role in changing the customer's attitude towards the organization brands and products and in relationship marketing. Marketing communication evolved in the 1990's from a one-way emitter to receptor (advertising, sales promotion, direct marketing etc.) into a two-way integrated marketing communications perspective (Schultz, Tannenbaub and Lauterbom, 1992; Schultz, 1996; Stewart, 1996).

Relationship marketing is based on the fact that on top of the value of products and/or services that are exchanged, the existence of a relationship between two parties creates additional value both for the customer and for the supplier or service provider; the *key processes of relationship marketing* being *communication, interaction and value* (Grönroos, 2000).

In today's business, the supplier tries to attract the customer into a two-way communication process, both to spread its own messages and to gather feedback on those messages, while creating value both for the customer by processing feedback into useful information on how to better tailor the products/ services for him, and for the company, by engaging the customer.

Conversational agents and conversational user interfaces (CUI) were developed through the years to try and emulate personal-level interaction. A human computer interface is a "means by which people and computers communicate with each other" (Bonsiepe, 1990), a place at which independent and often unrelated systems meet and act on or communicate with each other.

The CUI is an old concept with a modern implementation, a way for a human to interact with a device, in a familiar, conversational way. While usually the term "conversational interface" is used by some authors when referring to a speech based system (McTear, 2002; McTear, Callejas and Griol, 2016) the term can be applicable to other type of input, not only speech.

### **The beginnings of conversational user interfaces and their evolution**

Early in the beginning of computer development, the limited input types available (keyboard input into the command line) allowed for the development of the *first, limited, CUIs*. The computer was expecting a text input, from a finite list of possibilities, and knew what to respond based on that input. This is how the command line worked, and it hasn't changed a lot over the years. After the arrival of the *graphical user interface* (GUI) in 1973, built by Xerox and the subsequent large scale use of GUIs starting with Apple in 1983 and 1984, which allowed the user to use symbols and full-screen representations to control the computer, there was little interest in CUIs.

A different area in which the CUI was used starting from the 1980's was that of *answering robots*. Although still a finite state machine, this CUI accepted keyboard (tone or pulse) as input and used pre-recorded speech as output. Still in use today, advancement in this area allows now for voice input instead of keyboard, for a better user experience.

In the recent years, the appearance of mobile smartphones allows for a revitalisation of the conversational user interface. The limited usable screen space, much less than that of a computer, brought the necessity of compressing user interfaces into steps, that could be followed by the user, and user input deciding the next steps. Now, touch was added as a

new input method, smartphones being able to respond with a plethora of output methods: text, graphics, images etc.

The last, and maybe the most important development in the evolution of CUIs is the advent of *machine learning*. The classical finite state machines are now replaced by *conversational agents*, built using state of the art machine learning techniques like *natural language processing* and *trained models* to understand input in form of text, images or speech. This allows the user to speak as he would speak to another human, the agent being able to interpret the user's intention with a high degree of success.

### **Components of conversational user interfaces**

CUIs have a well determined anatomy. For human - computer interaction to take place, a few components need to be well defined:

#### ***The input source***

The input source represents how a human can signal the computer his requests, using various input methods. The commonly used input sources are:

- *Text input*, either directly from a keyboard or by selecting predefined texts from a list;
- *Speech input*, usually using a microphone and speech recognition software, that translates speech to text;
- *Visual input*, images or video, usually from a camera.

#### ***The output source***

The output source is the way the conversational agent responds to human interaction. There are three main output types:

- *Visual output*, using a screen, on which images and text are shown to the user;
- *Audio output*, using voice synthesizers and audio devices;
- *Mixed output*.

#### ***The conversational agent***

The conversational agent is the machine controlled entity which processes user input and decides, based on its computational algorithms, which information is the most adequate to output back to the user, thus being the "brain" of the CUI. Multiple types of conversational agents can be identified depending on the type of control the user has over the conversation:

- *System initiative* - when the agent proactively asks questions to understand what the user wants;
- *User initiative* - when the user inputs his message and the agent, using advanced parsing techniques, like *natural language processing*, tries to understand from the input what the user means;
- *Mixed initiative*.

Conversational agents powered by natural language processing are very powerful in interpreting user input from natural, every day sentences. This allows for a better and more immersive user experience and even an emotional link between the user and the agent.

Even if the local computing power and storage power grew exponentially in the last period, most, if not all, of the modern conversational agents also use the internet to return relevant output, either by accessing backend APIs or by executing searches on the internet.

### **Particularities of speech based conversational user interfaces**

In speech based CUIs, where input by speech should be validated before producing output, McTear, Callejas and Griol (2016) identified three main types of spoken dialogue systems:

- ◆ *finite state based* - in which the user is walked through a sequence of predetermined steps or states. Usually after each step a confirmation or verification is required from the user. This is somewhat like the way people are used to fill forms today, field by field.
- ◆ *frame based* - or template based system, can accept more than one piece of information in one single input, identifying helpful information, extracting it before checking if additional items of information are necessary before producing output.
- ◆ *agent based* - or AI based is much more complex, using the artificial intelligence to return output based on the input and infer alternatives and additional information based on the input. Usually the user input is tokenized, removing particles and stemming words, to be able to process the input. The tokenized input is then run through a natural language processing algorithm, and, based on a training set, through machine learning algorithms. the AI chooses the most likely output, based on resulting scores and returns the output to the user.

**Modern usage of conversational agents - harnessing the internet**

In the last two years, there has been an increase in the number of conversational agents employed. The improvements in machine-learning and AI allowed mass availability of AI services, used to power conversational agents. Both machine learning and agent building platforms had been released (table no. 1), and conversational agents had been used as part of personal assistant standalone products (e.g. Google Home, Amazon Echo).

**Table No. 1: Modern, commercial platforms, conversational agents ,and backends**

Platforms	Agents	Backend services
Facebook Messenger	Apple Siri	Amazon Alexa
Slack	Google Assistant	IBM Watson
Telegram	Microsoft Cortana	wit.ai
Discord	Microsoft Tay.ai	Dexter
Amazon Echo / Fire TV	Microsoft Zo	converse.ai
Google Home		Octane AI

*Source: authors*

Since the 1990's, internet has been a useful communication platform, with multiple channels available, each with multiple advantages and disadvantages (table no.2). With the advent of instant messenger platforms, the latest communication channel over the internet, one-to-one communication with instant feedback is possible at a large scale.

The mix of marketing and internet is widely known as cybermarketing, meaning the process of creating and maintaining a relationship with the customer through online activities, facilitating an exchange of ideas, products and service with the goal of fulfilling the needs of both parties (Imber, 2000, in Orzan and Orzan, 2007). Thus, cybermarketing is the embodiment of relationship marketing supported by the internet.

**Table No. 2: Advantages and disadvantages of marketing communications channels over the internet**

Channel	Advantages	Disadvantages
Email	<ul style="list-style-type: none"> <li>* Cheap to use</li> <li>* Can address many customers</li> <li>* Can carry a large amount of information</li> <li>* Can have multimedia information</li> <li>* Can provide direct customer feedback</li> </ul>	<ul style="list-style-type: none"> <li>* Can be perceived as spam if it is unsolicited</li> <li>* An email can easily be lost in the large number of email we are receiving every day</li> </ul>
Website	<ul style="list-style-type: none"> <li>* Can address many customers</li> <li>* Can have multimedia information</li> <li>* People expect companies, products, brands etc. to have presentational websites, so they usually look them up</li> </ul>	<ul style="list-style-type: none"> <li>* One way communication</li> <li>* People don't return to check for changes often</li> <li>* Can be difficult to get direct feedback from the customer</li> </ul>
VoIP	<ul style="list-style-type: none"> <li>* Allows for true one to one communications using voice</li> </ul>	<ul style="list-style-type: none"> <li>* Customers are not used / willing to be called and talk directly, preferring to use the phone for that</li> </ul>
Social networks	<ul style="list-style-type: none"> <li>* Many customers have a social network account</li> <li>* Can get information about the customer from his social network profile (name, date of birth, preferences, hobbies etc.)</li> <li>* Messages are public, addressed to everyone</li> <li>* A comment system provides two-way communication and direct feedback</li> </ul>	<ul style="list-style-type: none"> <li>* Customer must connect to the company using the social network</li> <li>* Cannot create a one to one communication channel</li> </ul>
Search engines	<ul style="list-style-type: none"> <li>* Almost 60.000 searches every second on Google. People search for everything from desktop or mobile</li> </ul>	<ul style="list-style-type: none"> <li>* One way communication</li> <li>* Usually expensive</li> </ul>
Push notifications	<ul style="list-style-type: none"> <li>* Push notification have a large opening rate</li> <li>* Can provide the customer with a link for a detailed message</li> </ul>	<ul style="list-style-type: none"> <li>* Works only if the customer consented to push notifications</li> <li>* Push notifications are usually short and can't carry multimedia messages</li> </ul>
RSS	<ul style="list-style-type: none"> <li>* Cheap, usually paired with a website, allows new website content to be delivered to subscribed users</li> </ul>	<ul style="list-style-type: none"> <li>* Customer must subscribe</li> <li>* The technology is losing traction with the advent of alternative communication channels (social media)</li> </ul>



Instant messengers	<ul style="list-style-type: none"> <li>* Large customer base</li> <li>* Large opening rate</li> <li>* Instant two-way communication</li> <li>* Instant feedback from customer</li> <li>* Can function unattended with an autonomous conversational agent (chatbot)</li> <li>* Can carry multimedia messages</li> </ul>	<ul style="list-style-type: none"> <li>* Customer must consent to receiving messages</li> </ul>
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Source: authors

In the last 5 years, the number of internet connected people reached over 3.5 billion (Statista.com, 2017a). The number of monthly active users on Facebook was over 1.86 billion in the 4th quarter of 2016 (Statista.com, 2017b). Estimations (Zenith, 2017) show that 75% of the internet traffic is going to be done from mobile devices in 2017.

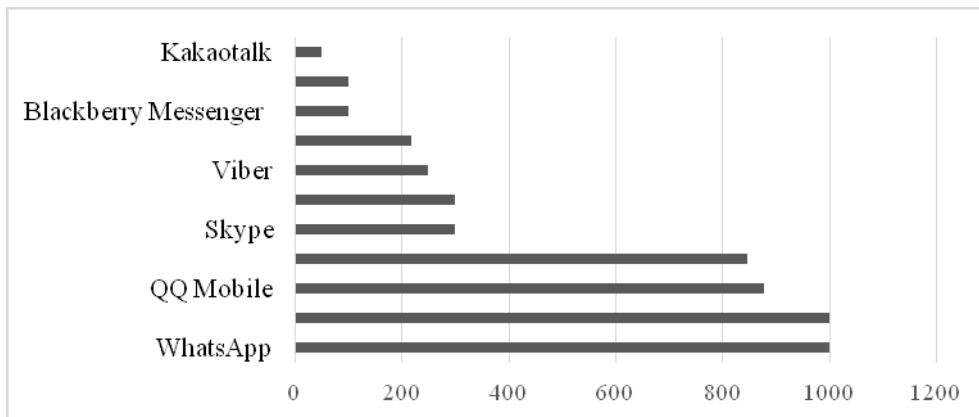


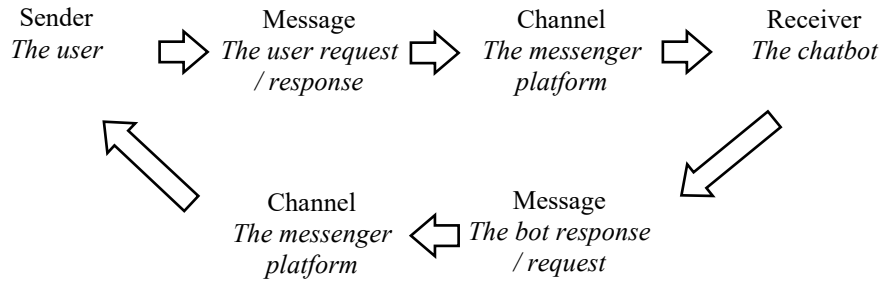
Figure No. 1: Most popular mobile messaging applications worldwide as of January 2017, based on number of monthly active users (in millions)

Source: Statista.com, 2017c

In this context, people started using *messaging applications* (fig.no.1), instead of traditional phone calls and SMSs. Messaging applications have become predominant in the main "app stores", with the largest of them having over 1 billion monthly active users as of January 2017 (Statista, 2017c).

**Chatbots - engaging users through messaging platforms**

"Chatbots are automated services, powered by rules and machine learning, that allow consumers to interact with brands online via a messaging interface without having to download an application" (Zenith, 2017). Modern chatbots can provide an unattended communication channel, allowing efficient communication and interaction with the users (fig.no. 2).



**Figure No. 2: The communication process model applied to the chatbot communication**  
 Source: authors

Advances in machine learning technology and the availability of chatbot building platforms like Octane.ai or Talkbot allow marketing people to design their own interactions through a chatbot without the need for a programmer.

For example, the KLM messenger bot, available at messenger.klm.com, allows the airline to send to the user booking confirmation, check-in notifications, the boarding pass and flight status update using Facebook Messenger.

A chatbot can be used to enhance relationship marketing because of the following features:

- ✓ **Always available** - the chatbot is connected to the messaging application permanently on the company's account. Whenever a customer sends a message, the chatbot can respond immediately, whereas a normal human response could have taken even a few hours. The chatbot can spawn multiple instances at once, being capable to run an unlimited number of conversations at the same time.
- ✓ **Autonomous** - depending on its backend, the chatbot can respond to any frequently asked question, and even learn from one response to another the degree in which the answer was useful based on user feedback.
- ✓ **Self-improving** - Microsoft's Tay.ai used machine learning to learn from each conversation, continuously improving its training set and available data. This had a downside too, as Tay.ai became racist and vulgar in one week from launch.

Especially in customer support a chatbot can help reduce expenses by resolving most of the requests fast, based on previous experience and training. While the normal customer/ user might not be willing to search websites for responses to a question and prefer instead to speak/ chat with a support person, a chatbot can emulate a conversation, even at an emotional level, making the customer feel safer and more willing to participate in the conversation.

Chatbots can also be useful in sales, allowing the customer to fill forms in a conversational manner making the experience more personable (checkout forms, contact forms etc.).

The next step in using chatbots would be active direct selling, with the AI selecting most likely candidates to buy a product based on their purchasing history/ personal profile and contacting them through messaging platforms starting a conversation in order to convince the user to buy the product.

When designing a chatbot, a few main points should be considered (Zamora, 2017):

- People expect chatbots to provide an experience that is smart, high performing and personable.

- Design for a supportive relationship to build trust - there is initial distrust with computer-based systems (Muir, 1987) which can be alleviated with an emotional experience.
- Casual conversations should be relatable - conversations in the user's native or preferred language are easier reproduced;
- Input modalities should be based on context and goals - for example voice is preferred when hands are occupied.

### Conclusions

Modern autonomous conversational agents, or chatbots, are not a new concept, but only in the last two years, the artificial intelligence needed to power them has been made available for mass utilization, thus allowing any company to build an autonomous conversational agent that can communicate with users on their preferred instant messaging platform. This is a personal communication, at an emotional level, building trust between the customer and the company, replacing the need to train personnel for the job, providing instant and consistent answers to the customer. Chatbots can filter and answer basic requests, and even to proactively contact customers to sell products and services.

Instant messaging platforms became the preferred internet communication method for most users and this is seen especially in the mobile internet world. Companies should be looking towards chatbots as a good investment to technologically enhance their relationship marketing efforts. Future research should be constantly conducted to evaluate the effectiveness of autonomous conversational agents and the quality of user experiences they provide.

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## **STUDY ON THE BUSINESS RISK AS A RESULT OF A PERFORMANT CLAIM MANAGEMENT IN MULTINATIONAL COMPANIES**

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### **Abstract**

This Paper is highlighting a part of the results of a doctoral research regarding business performance improvement through contract management, conducted by author in the Research Centre of Business Administration, Bucharest University of Economic Studies, Romania.

An important part of Contract Management is to handle and process claims. This activity offers a unique context for dealing with one company's weakest performances, giving access to all internal workflows involved in creating the undesired result. Managing claims is most about running back the sequence of events and critically challenging processes and people to identify the root cause of failure; once this achieved, all available methods and conditions are used to negotiate and mitigate the loss or gain the advantage.

If properly managed, it can serve as a strong tool to improve a company's internal structure to raise performance and trust among business collaborators and competitors. Especially nowadays, when the global market is facing a true watershed in outsourcing and mergers, where up to 80% of them fail to reach completion, companies should focus on available tools to recognize its weak links and act proactively to strengthen them. In doing so, it can encounter positive risks which otherwise might have remained lost opportunities.

The goal of this paper is to identify the business risk a company may have to manage after the implementation of the proposed claim management process and risk warning signs.

Our study is based on a thoroughly reviewed existing literature and a case study from the Oil and Gas industry which shows a 180% claim leakage reduction when implementing a performing claim management. This translates itself in a higher rate of successful outsourcing contracts and increased trust among contractual partners.

**Keywords:** Global Supply-Chain, Claim Management, Risk Management, Business Performance, Process Improvement

**JEL Classification:** M160; F23

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### **Introduction**

Latest studies undertaken by the Big 4 Financial Consultants show that 83% of mergers fail before reaching their scope. Further studies highlight that around 50% of contract value registers significant value erosion before close-out. These alarming numbers contribute to a lower profit, higher rate of insolvency and distressed businesses; all together causing a global instable economic environment.

On such dynamic markets, where profits have a slower growth and the absolute number of competitors is raising (Dobbs & Koller, 2015), business risk as a consequence of supply chain disruptions became CEO's biggest fear. Parts of the causes that create this challenging environment are non-aligned inter-organizational processes and the attempt of responsible employees to cover mistakes and wrongful decisions.

Aiming to lower the hidden risk a company undertakes with each contract, a well-set and transparent claim process is a good solution to face reality and save precious time for safe business decisions. This new reality may unveil opportunities for lasting improvements which otherwise might have remained wasted.

By this Paper, we aim to prove that managing claims in a performant framework has a direct impact on the tangible internal processes, enforcing improvement. This organizational "healing" process can further strengthen one companies' market position and grow control on the overall business risk.

### **Literature review**

Globalization stretches companies over their operational limits and encourages business collaboration. It is our nowadays reality that a product or service is compound of tiles and actions performed by different companies in different areas of the world. This phenomenon has its obvious advantages, yet by the pressure companies' are facing, it tends to raise the risk they would normally undertake. Besides the "safe" inter-collaboration, that takes place between one companies departments or business areas, intra-organizational collaboration (Eisingerich; Bell, 2008) is seeked to be developed on more stable grounds. Due to similar limitations as the operational ones, collaboration is more likely to impact positively the companies' performance and innovation outcomes when it includes a selected few companies, and is not conducted among large numbers of different firms (Eisingerich; Rubera; Seifert; 2009).

Outsourcing represents a business process transfer from a company to an external provider; by this also the correlated responsibility is handed over to the third party expert. (Cooke; Budhwar, 2009). Yet, the aforementioned studies show that a wrongly assigned outsourcing project has a high risk to fail the entire business. Consequently, companies are more and more focusing on global collaboration (MacCormack et. al., 2007) instead of global outsourcing. The difference is the level of invested leadership of all involved companies, shared information transparency and knowledge among stakeholders.

Business collaborations and outsourcings are both legalized the day the agreed working processes of the new collaboration are enclosed into a signed contract.

From business perspective, on one hand this process enforces cost reductions and enables focus on core business and on the other one increass operational risk, both negative and positive, known as risk and opportunities. In the ideal case, all possible risks are identified and mitigated in an early stage of the collaboration (Islam et. al., 2009). However, a study conducted in 2016 by Deloitte & Touche LLP shows a more shadowed reality as 48% of outsourcing agreements fail in achieving their set goal and become terminated before close-

out. This is the outcome of ineffectively managed risks that causes value leakages, financial losses and adversary impact on reputation. This percentage is even higher, if we consider that by chance some critical situations never occurred. Following, as long the work is performed as expected, the contract itself remains still and forgotten. Yet if the agreed conditions are not suitable to any of the involved parties' internal processes or given business environment, the signed document became the main tool of negotiation and correction. Therefore, contracts are considered to be legal support in case of any failure of the signing parties and made for the worst case scenario in which something goes wrong and justice has to be done among the business partners.

Whenever a contract is breached by any contractual party, a non-conformity or non-compliance is reported. Whereas non-conformity is a failure and/or deviation from a specific technical requirement, non-compliance is considered to be a deviation (and/or) irregularity from the contractual obligations and/or formal terms and conditions, to which the parties did not have formal prior agreement. Both, if validated lead to Claim, which is a formal demand (and/or) assertion by a Contractual party for compensation from a loss, delay and/or expense caused by the counterparty under the Contract. This work process is mostly unpleasant to many as it presents the lack of performance at organizational and individual level, therefore, it tend to be managed as a last option and rather considered a rigid approach than a problem solving one.

Process improvement is requested when an existing process is not delivering expected results or is bypassed by employees. To perform a process change, companies tend to use Kaizen (Sharp; McDermott, 2009) which came to life in the 1890s. Kaizen is rather a complex of business methodologies, a “umbrella concept” that foster improvement (Imai, 1989; 2012) , where Kai means change and Zen means good. As for Sakichi Toyoda, the main founder of what we know as Lean Manufacturing principles, no process reaches ever a stage from which it can no longer be improved (Liker, 2004).

To start such an initiative in the processes with impact on the company’s outsourcing strategy; one company must first possess internal capabilities of process improvement and change management techniques to ensure improvement occurs. Once those available, they have to be developed as suitable capabilities to employ relevant techniques in Business Process Outsourcing (Ronan, 2016). Business Process Management is basically the capability of overseeing how work is performed within a company attempting to ensure consistent outcomes and recognize improvement opportunities (Dumas; La Rosa; Mendling; Reijers, 1998)

Process efficiency can be calculated using the formula:

$$PE = \frac{\sum PTs (VA)}{\text{Total LT}}$$

**PE = Process Efficiency**  
**PT = Process Time**  
**VA = Value Added**  
**LT = Lead Time**

### **Research methodology**

To achieve the objectives, relevant research articles and literature were studied from trustful publishers and world-wide recognized professional associations and organizations. Following, we recognized a common concern on the threat of business instability coming from the supply-chain system. Based on this, we analyzed possible dysfunctions of outsourcing contracts and found a correlation between theory and practice. Our empirical

research is based on a case study where the claim management process was improved and major operational dysfunctions identified based on this change. We interviewed 3 International Contract and Claim Managers, which helped developing a ring-a-bell list for upcoming claims. Based on the literature and empirical research, we propose an efficient claim management process which together with the identified warning signals, it supposes to help professionals to better prepare for critical contractual situations and organizations to improve information transparency.

### **Empirical research**

Within one of Europe's major Oil and gas companies, Claim Management, except of Health, Safety and Environmental incidents, was considered an aggressive approach towards Contractors. The organizational culture was of mitigating contractual breaches and/or deviations in one to one sessions, aiming to reach zero (0) claims for reaching operational performance. It is to mention that the organization used to have a special department within the Business Support function to manage claims, having full control and authority on the process and outcome. Making use of this privileged situation, the project and / or contract responsible offered minimum support and was rather reticent to any involvement as own mistakes may be revealed and / or the personal relationship to Contractor harmed.

However, this approach did nothing else than weakening the Company in any relation to the Contractors and raise the variation of received contractual outcome. This high variation on negotiated solutions raised contractual costs and management decided to improve the existing approach by defining a new process which in time shall support a change in the organizational attitude towards claims. With this occasion, the Contract responsible which is managing the contracts had to take the lead on dispute resolution following a standardized procedure in how to approach a dispute based on a risk guidance.

The Contract Managers which were assigned from different departments within the organization had to start managing disputes and claim cases based not only on their previous experience but concluded a Contract Management Handbook to base guidance.

When the dispute resolution failed to deliver a positive outcome, the contract responsible send an e-mail notification to Claim Department to leverage the problem. At this point in time, the counter-party was already gaining valuable negotiation field and chances of recovery lowered. As only unsuccessful cases reached the centralized Claim Department, no real overview on organizational level was available on where and why an outsourced project failed. It leads to untraceable disputes and claims for the management and reduces the chances of recovering losses caused by Contractors.

Together with the new process, workshops among the entire Business Unit were organized to train and capture valuable information on why and how a claim shall be managed in future. Once the power of negotiating claims was decentralized and restored to the contract responsible and the Claim Department took only the role of experienced consultant, governance and reporting role, the situation changed drastically within only 12 months.

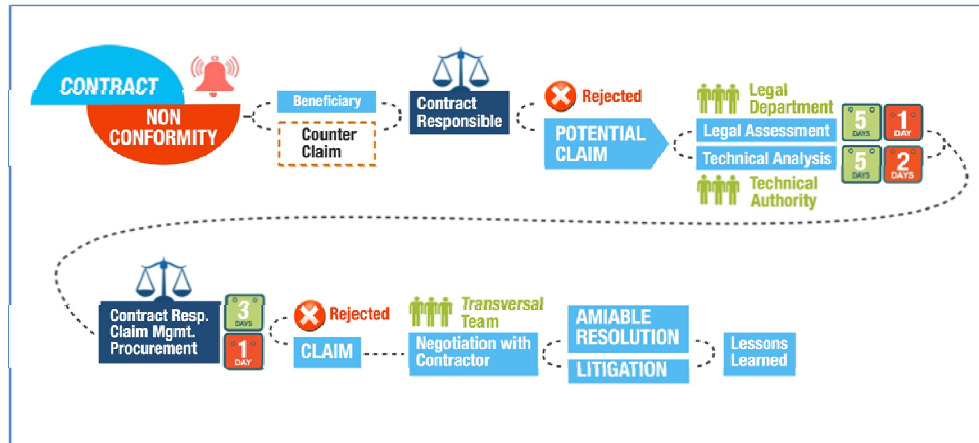
The claim leakage was reduced with 180%, and helped recovering and avoiding 1, 1 % of the overall outsourced value, summing approximately 9 MN Euro. Consequently, major systemic dysfunctions controlling take-over, contract body overall governance and performance reporting were identified. Following the next 12 months, those 3 important control tools were completely reshaped to serve the organizations own interests. Thereby,



further contractual value erosions could be prevented and further similar caused losses avoided. The proposed and tested process is visually presented in Figure 1.

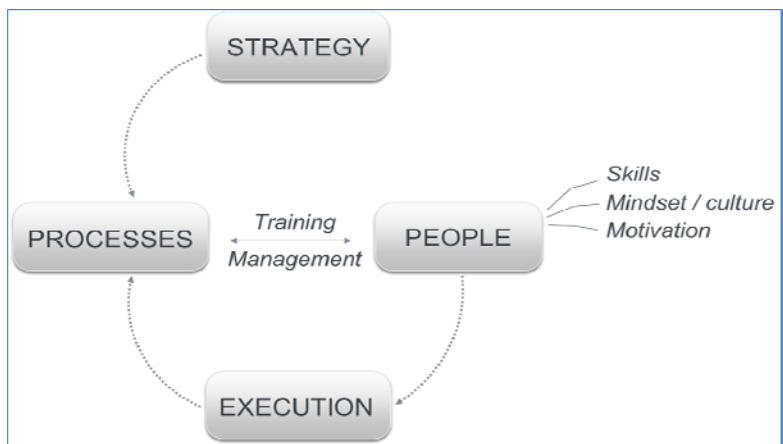
**Research outcome**

As of the above case study the process visualized in Figure 1 shall ensure a functional managerial support in processing claims.



**Figure no. 1: Claim management process for Beneficiary companies**  
 Source: authors' contribution

When a Contract breach happens or is alarmed, the event should be registered into a system that offers in time information and transparency among stakeholders on the actual status, pointing clearly where in the process flow which responsible took which decision, based on what arguments. This way, the system is not only tracking the course of the event and decision flow, but supports a thorough understanding of the root cause and management approach on each single case.



**Figure no. 2: Implementation Diagram of a Performant Claim Management Process**  
 Source: authors' contribution

As presented in Figure 2, the company strategy has to be reflected within its internal processes which have to be linked through training, workshops and management to the employees that are going to make use of them. This is the point in time when new skills may be requested, mindset and organizational culture impacted to a better change and tools to motivate people aligned. Once those accomplished, the tasks may be executed within the new framework offering the opportunity to challenge the process and where deviations occur, improvements may be done.

From the experience of the interviewers, such a complex claim management process can be implemented in Multinational Companies within three to nine months, depending on the expertise of those who have to execute it. However, four steps are proposed:

1. Essential for sustainable implementation of the process, the involved employees, especially the involved level of execution shall be exposed gradually to procedural, during training. The aim is to ensure adherence and acceptance thereof, avoiding rejection of concept.
2. Kick-off meeting –present only frame-work and main ideas, not disturbing details;
3. Workshops – organized in 4h sessions for changing mindset and acquiring needed know-how and skills with focus on solving similar, existing cases by using new instruments and process
4. Practical motorization of activity with support and assistance on process risk areas.

Based on the interview held with 3 international Contract and Claim Managers with over 25 years' experience in the field, we concluded a list of early signs which may lead to a claim. To do so, it is recommended to obtain the agreed Baseline schedule very early on in the contract life time and to then select say 10 key milestones in order to monitor performance. These key milestones should be selected by experienced people with direct involvement in the business outcome, as the Project or Business Line Manager or Contracts Manager:

1. Delayed provision of early documents (bonds, insurances, major documents);
2. Notices of claim submitted by contractors;
3. Change Orders or Variation Orders or Requests for Change on agreed schedule;
4. Slippages in applications for milestone payments;
5. Actual Cash-flow lagging projected cash-flow;
6. Failure to manage communication;
7. Changes to approved subcontractors;
8. Health, Safety and Environment incidents;
9. Non-Conformity Reports;
10. Resources below those stated in bidding documents.

Once selected, they should not be changed. When key milestones are missed the responsible persons should be alarmed, an investigation made, and a brief report issued.



**Figure no. 3: Major Opportunities and Risks given by an efficient Claim Management**

*Source: authors' contribution*

### Conclusions

The management need of having a clear and in time overview of all disputes and claims within the company for a better control of any outsourced service or product, combined with a 360 degree Contractor evaluation supports fast and "healthy" business decision. This can be achieved when the organization is challenging the claim process to deliver information in a transparent mode. It secures diagnosing and recognition of critical situations rather than treating deal-braking events. To aim this, contracts should first define the process for managing a foreseen risk and price it according to the pre-award evaluation. Secondly, contracts shall offer helpful guidance in case of unforeseen events and set clear directions of how those encountered situations shall be best managed.

As claim management does not only reveals the performance leakages of a company, but point out weak decision makers to ensure its complete implementation, the full support of the Board and Top Management is needed. This process is changing organizational culture and challenge old behaviors to break routine. By this continuous improvement cycle, organizations are likely to strengthen valuable collaborations and earn clients recognition.

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## **DEVELOPMENT OF A MODIFIED TECHNOLOGY ACCEPTANCE MODEL FOR AN INNOVATIVE CAR SHARING CONCEPT WITH SELF-DRIVING CARS**

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### **Abstract**

Mobility in Germany is changing due to economic, ecological, social and technological trends that lead to a major transformation of the environment in the future. At the present time, it can be assumed that one of the upcoming trends are self-driving cars that hypothetically become part of our daily mobility behavior in the long term. In this regard, the measurement of the factors for acceptance of a car sharing model with self-driving cars shall be analyzed within this paper.

User acceptance is considered as a basic prerequisite for the success of this innovative form of mobility. To develop a viable business model, a corresponding acceptance factor analysis on the customer side is required. Particularly, when innovations are designed for a broad audience, the characteristics of the product shall meet the diversified requirements of this market. The paper examines and compares classic technology acceptance models and defines, based on the Unified Theory of Acceptance and Use of Technology (UTAUT) by Venkatesh et al. (2003), a tailored and modified model that incorporates the interaction of internal and external influencing factors, usage phases and time.

**Keywords:** Technology Acceptance Model, self-driving cars, car sharing, mobility, innovation.

**JEL Classification:** O33.

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### **Introduction**

The urban mobility behavior in Germany will significantly change in the upcoming years per current forecasts and adapt with new technology and digitalization to the changing conditions accordingly. Core developments, such as demographic changes and the accompanying adaptations in lifestyle, technological developments in the mobility sector as well as economic and environmental factors will affect the choice of transport modes. With a high share of individual motorized mobility (52%), followed by foot (22%) and cycling (13%), public transport plays a minor importance (12%) in the modal split in Germany (Karlsruher Institut für Technologie, 2015).

In the same period, an increase of 37% in car sharing can be noted in 2015 compared to the previous year, which highlights the attractiveness of this form of mobility (Bundesverband CarSharing e.V., 2015).

Along with the technological progress in the field of autonomous driving, car sharing with self-driving cars could become a future transport mode - taking a higher priority over the classical car sharing system and thereby even individual motorized as well as public transport.

### **1. Car sharing with self-driving cars**

The idea of self-driving cars in a car sharing model is based both on the classical model of taxi companies in Germany, as well as on the free-floating car sharing model, which is characterized by flexible stations of return. With many of these providers, customers have the opportunity of ordering a vehicle via a smartphone to their location or to locate a vehicle in the vicinity while the whole process from ordering to paying and returning the car can be supported by an app.

Unlike the current car sharing system with the necessity to drive the vehicle, the idea of a model with self-driving cars reveals a much higher flexibility: vehicles are distributed automatically according to the transport flow analysis throughout the city center to reduce the waiting time for customers to a minimum. At the same time, the model may also, upon request of customers, integrate the function of a smart carpooling solution. This would mean that customers will take a small detour to reduce their own travel costs, while automatically being "pooled" through the system with other customers in the vehicle. Furthermore, autonomous vehicles themselves are already advantageous compared to private motorized transport modes:

- Increased transport efficiency by reducing congestion (Bundesministerium für Verkehr und digitale Infrastruktur, 2015),
- Increased road safety (Bundesministerium für Verkehr und digitale Infrastruktur, 2015),
- Reduction of emissions due to carpooling of passengers in a vehicle with the same or similar direction (Greenblatt and Shaheen, 2015) and
- Increased comfort level with respect to the public transport (door-to-door mobility, seats, increased privacy) and the classic private motorized transport (no intervention required, travel time can be used for other purposes).

Summarizing the advantages, the use of self-driving vehicles in a car sharing model, offer an economic, ecologic and personal advantage while ensuring full flexibility on the customer side.

A car sharing model with self-driving cars could hypothetically be considered in the future for not only replacing individual motorized traffic, but also public transport.

Nevertheless, self-driving vehicles in car sharing model simultaneously bear several challenges and obstacles, which could lead to problems or even failure of such a business model. These challenges include technical, operational, political and social aspects. While the social challenge is minimized to the factor of acceptance in this paper, the technical challenge refers to the vehicles themselves and less to the car sharing model. The political challenge is currently strongly determined by the legislation, which requires an adjustment according to the technology and the possibilities of autonomous cars in order to allow a large-scale deployment and expansion. Ultimately, the challenge lies in the operation and maintenance of self-driving vehicles in a car sharing model and the associated services (app).

The acceptance of potential customers of such a car sharing model in German cities is the basis for success. Without the analysis of customer acceptance and the consideration of specific factors, the model cannot be fully elaborated. For a better determination of the acceptability and its influencing factors, a classic technology acceptance analysis is required, which is outlined below.

## **2. Classic acceptance model frameworks**

The literature suggests numerous models for the analysis of acceptance and the consideration of various influencing factors. The models describe the basis for the measurement of acceptance, but can mostly, due to the general and non-specific themes approach not be regarded as an exhaustive list of influencing factors.

In a first step, it is necessary to clarify what the term “acceptance” means and how it is used in this paper. It is already mentioned that acceptance describes a critical success factor for innovations. Furthermore, technology acceptance is understood as a psychological process that starts with pure interest in an innovation and leads toward the (daily) use of this innovation (Kollmann, 1998; Jockisch, 2010). Consequently, acceptance can be defined as a conglomeration of evaluation and affect.

For years, researchers have tried to model and measure technology acceptance. One of the first fundamental models is the "theory of reasoned action" generated by Fishbein and Ajzen (1975) and is used to display influence and trigger factors of a particular behavior. The theory has been altered by the contemplated scientists a few years after the publication and has been published again as the "theory of planned behavior". This theory describes an extension and includes the definition of influencing factors. The theory of planned behavior is considered as one of the most central acceptance models of today's research (Fishbein and Ajzen, 1975).

The advanced theory by Ajzen and Fishbein (1975) is based on three behavioral factors:

- Attitude,
- Subjective norm and
- Perceived behavioral control.

The rational model is based upon a combination of these factors with maximum expression of a subsequent behavioral intention and the behavior itself.

Besides the classical acceptance model by Ajzen and Fishbein (1975), several other scientists have conducted research in the area of acceptance, while these models have been mostly adjusted to explain specific applications. A selection of commonly accepted models will be introduced in the following to extract key messages and to define a modified, topic-specific acceptance model therefrom.

Another acceptance model in the field of innovation is described by Davis (1989) and known as the “Technology Acceptance Model” (TAM). This model is based on Ajzen's and Fishbein's (1975) considerations of the theory of planned behavior. Davis (1989) emphasizes the user in his technology acceptance model to analyze the perceived usefulness and the perceived ease of use of an innovation accordingly. Based on this model, Davis along with Venkatesh (1996) proposed an extended model called TAM 2 that incorporates external influences on the perceived usefulness and the perceived ease of use of the technology. In a further adaptation of the model, the so-called TAM 3, Venkatesh and Bala (2008) focus on the assessment of the perceived ease of use, which is determined by six influencing factors (Jockisch, 2010):

- Confidence,
- Perception of external control,
- System anxiety,
- Playful use of the system,
- Perceived enjoyment and
- Ease of use.

The updated technology acceptance model incorporates again some aspects of Fishbein's and Ajzen's (1975) research and describes one of the most popular models for explaining the personal shaping of acceptance. Yet this model, as it is the case with most other models, needs to be critically considered, as it describes a simplified process of shaping acceptance and can hardly be reduced to the definition of external and influencing factors (Becker, 2016).

The acceptance model by Degenhardt (1986) is a model that was specifically designed to measure the utility of screen texts. The model can nevertheless be applied to other innovations. Degenhardt (1986) explains the formation of acceptance by three key factors: system configuration (form, function and utility of the innovation), task characteristics (importance and frequency in use) and user characteristics (skills or motivation).

In contrast to this model, the acceptance model of Kollmann (1998) focuses on peripheral influences on macroeconomic, socio-cultural, technological and political-legal level. The highly complex model simultaneously considers acceptance as a dynamic process that includes influencing factors in different stages. Kollmann (1998) developed the model for the analysis of acceptance of innovative goods and systems.

One of the most recent technology acceptance models, called the "Unified Theory of Acceptance and Use of Technology" (UTAUT) was developed by Venkatesh et al. (2003) and merges the strengths of different previous models, i.a. TAM, TRA and TPB. The theory is based on four latent key factors: performance expectancy, effort expectancy, social influence and facilitating conditions. Additionally, the model foresees influences by gender, age, experience and voluntariness of use.

Summarized, the following three key model components can be derived from the examined models that determine a person's acceptance towards an innovation: external factors, individual factors and phases or stages of use.

The listed individual model building blocks are composed of external as well as individual influencing factors, which can lead to different behavior and ultimately to acceptance throughout various phases of use. It is striking, however, that all studied models above are two-dimensional and cannot represent the direct relationship between influencing factors, the time, and the respective acceptance phase.

### **3. Modified acceptance model**

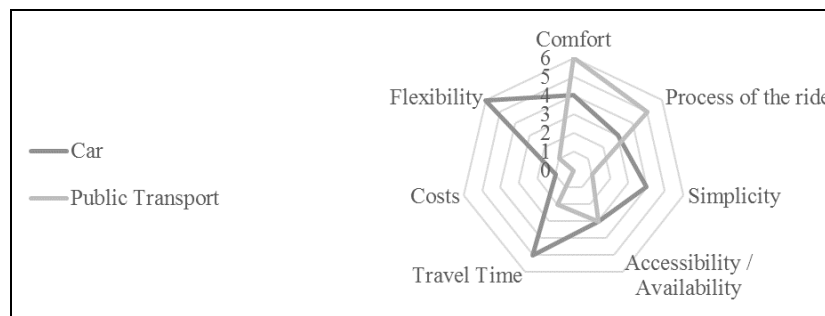
The modified acceptance model shall be theme-specific for the purpose of responding to the supposed individuality of the acceptance of self-driving cars in a car sharing model. To this end, the individual as well as the external influences are combined and lead to a different behavior in different stages of use and ultimately to user acceptance.

In order to determine influencing factors of self-driving cars in car sharing model, motives for selecting particular modes of transport are considered. The Traffic Club of Germany (Verkehrsclub Deutschland) identified three top motives for the choice of transport mode through a survey with 2,200 participants in 2014: accessibility of places and locations, costs and reliability or punctuality (VCD, 2014a).



Other reasons for choosing a particular transport mode are the motives of the total driving time, the flexibility and convenience. The environmental performance, privacy and security are less relevant motives according to the survey (VCD, 2014a).

Examining the reasons for the choice of the individual transport modes, the advantages and disadvantages are clear and thus show the differences from a customer perspective between the individual transport modes. Public transport (bus, train, tram, etc.) and motorized individual transport (usually: car) are compared by using the development of a simplified network diagram with the motives for selecting the respective transport mode. The data is based on surveys from Germany and Austria that analyzed the motives for using the train, the public transport in general and cars. The weighting of the individual values is done on a nominal scale (1-6), that is determined by the relation of the respective percentage of value. The number six represents the greatest severity, while number one expresses less motivation of using a specific means of transport. The survey results were summarized by seven core motives for modal choice and illustrated in a network diagram below (figure no. 1): comfort, process of the ride, simplicity, accessibility and availability, travel time, costs and flexibility.



**Figure no 1: Motives for the choice of different transport modes**

*Source: own figure, based on IMAS International, 2015; VCD, 2014a; VCD, 2014b*

It should be noted that the statistics shown above describe a summary, but are highly dependent on the travel time and travel purpose (e.g. business travel, vacation, etc.).

The network diagram illustrates the strengths and weaknesses of the respective transport modes (public transport vs. car). It is obvious that different customer groups with different travel purposes influence the decision of transport mode.

Derived from the motives for one or the other transport mode, a model is developed that takes all influencing external and internal factors into account for customers. The modified model shall incorporate different user phases and that could lead to the use an innovative means of transport (acceptance): self-driving cars in a car sharing model.

The three stages that are traversed by a customer that start with attention and end with the use of a new technology are presented in Kollmann's acceptance model (1998). These stages shall be incorporated in the modified acceptance model. In the so-called recruitment stage, the potential customer has not yet tested the product itself, but has drawn attention to self-driving cars through media and society that lead to an attitude towards this innovation. This phase can further be clustered according to the AIDA model: attention, interest and desire (Koschnick, 1983; Walker, 2014).

The penultimate stage of the AIDA model (desire), ultimately leads to the phase of action. If the user is satisfied during the action phase and if all personal motives in regard to personal mobility are met the action phase is followed by the regular usage phase, which implies a repeated use. The extension of the AIDA model corresponds with less itemized steps to the greatest possible extent to the model of Kollmann (1998). It includes, in addition to “attention, interest, desire and action”, also satisfaction and conviction (Fitzgerald and Arnott, 2000).

The modified acceptance model of the authors considers, along with the above described individual phases, also the timeframe. Hence, time is a critical success factor for the creation of acceptance. Furthermore, the modified acceptance model provides a three-dimensional structure, where the (potential) users passes the different phases in order to reach the level of acceptance, while he is simultaneously affected by individual and external influencing factors.

As already mentioned at the outset, the UTAUT model is used as the basis for the determination of influencing variables and the general acceptance level. The "voluntary" factor is not further investigated because, in the implementation of such a car sharing model with self-driving cars, excessive, existing mobility alternatives are assumed. The aspect of "supporting circumstances" is broader defined than the original definition of Venkatesh et al. (2003). The individual factor "experience" is replaced by the term "knowledge/information", because of the current lack of existence of a car sharing model with self-driving cars. Instead, the hypothesis is made that already information and knowledge about this technological innovation could positively influence the level of acceptance.

If the subdivision of individual and external factors is followed by a subsequent distribution of the influencing factors, the investigation of the above-mentioned surveys reveals that all identified motives for the choice of transport are found in the UTAUT model under other or generic terms. Accordingly, the modified acceptance model provides for a three-dimensional structure, which incorporates the time factor, represents the level of acceptance and, in the third dimension, considers the influence of individual and external factors. In doing so, influencing factors are considered in the setting and action phase before it leads to the final status, the acceptance. The figure no. 2 summarizes the modifications of the UTAUT theory and the influence of further existing acceptance models to a new modified acceptance model:

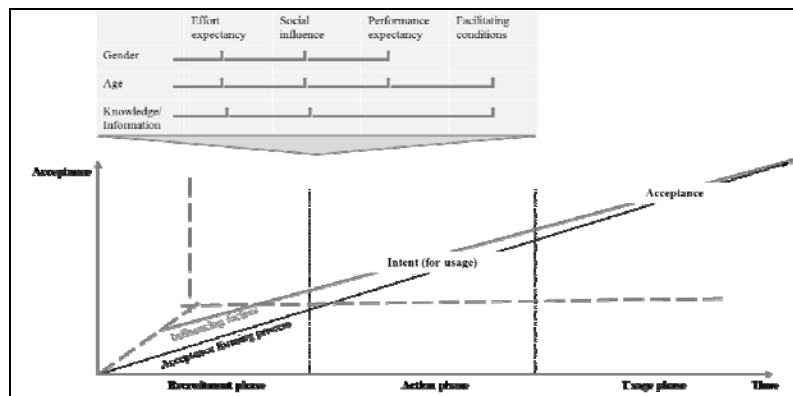


Figure no 2: Modified Acceptance Model

Source: own figure

#### 4. Summary and outlook for the measurement of acceptance of self-driving cars in a car sharing model

Self-driving cars in car sharing model represent a sustainable mobility concept in Germany per the hypothesis of the authors that takes the changing environment into account and implements most motives from a customer perspective regarding transport choice.

Acceptance describes a fundamental criterion, indicating the success of such a model. Since acceptance cannot be easily measured due to the lack of implementation, the authors have developed a modified acceptance model, based on existing models (predominantly the acceptance model by Venkatesh et al. (2003)). The time factor is a central criterion in the development of acceptance and is incorporated in the three-dimensionality model that displays a construct of external and internal influencing factors.

This model represents the basis for the measurement of influencing factors of self-driving cars in car sharing model. Based on this model, hypotheses shall be developed that are then in a second step to be operationalized for measurement. The operationalization of the modified acceptance model can be conducted through empirical research. The method of structural equation modeling could be applied to not only measure the latent variables, but also identify their dependencies. In a last step, the superordinate hypothesis of the acceptance of self-driving in a car sharing model in Germany is then to be confirmed or refused, revealing the key factors for acceptance.

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## THE IMPORTANCE OF THE SUPPLY CHAIN IN THE MARKETING PERSPECTIVE

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### Abstract

In this paper, we will present the importance of collaborating, concluding a medium and long-term partnership between a distributor and a retailer. Another important aspect is to define and detail this link by describing all the activities and services that take place between the two players in the market. We will describe and present the trade benefits that trade marketing services bring to a distributor in the development of its economic activity.

**Keywords:** marketing, supply chain, management, relationship

**JEL Classification:** M30, M31

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### Introduction

In any market, there are several companies and one of the basic activities to increase their turnover and, implicitly, the profit is to manipulate the goods present on that market as well as they can. Physical distribution, logistics, materials management, logistics management and the supply delivery chain are basic marketing activities that improve the distribution business of a company.

The supply has several economic objectives, including:

- Ensuring, at the right time, the necessary goods for the company to meet the customers' demands.
  - Making the most advantageous combination of price, quality and service.
  - Reduction of inventory losses related to storage costs, or other safety stocks.
  - Developing relationships with various competent suppliers in the market, which leads to a rigorous evaluation of the performances of current and potential suppliers and, of course, the establishment of long-term partnership relations with reliable suppliers interested in cooperating to achieve common objectives in the common interest. Here we can place all the trade marketing services provided by Auchan to all its distributors.
  - Developing alternative sources of trust to diminish dependence on one or several sources of supply present on the market. Product sales interest must be shared between the supplier and the retailer, which leads to the need for market services provided to the supplier.
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- Keeping track of the market trend and maintaining the firm's competitive position.
- It is recommended that good relations be maintained between the departments and, in particular, the supplier supply department.

**The relationship between the supplier and the distributor**

The partnership between the supplier and the distributor, the purchase, must be done through cooperation between the parties, through the development of a long-term relationship by focusing on the quality assurance of the whole process by eliminating non-joint suppliers, through open exchanges of information between the current teams in the two firms, a mutual trust between the buyer and the supplier. Compared to traditional relationships, partnerships determine profound changes in purchasing. The supplier and the client promote objectives of mutual interest for the longer term. The partnership has favorable results for both sides: ensuring a steady quality, continuity in product, supply, the possibility of planning future improvements, access to the supplier's technology, reducing total costs by participating in product design, supplier's investments to meet common goals, facilitating problem solving for continuous communication.

The supplier's interest in promoting partnerships with the client company has several advantages:

- The possibility of advance planning of the activity
- The improvement of its own products and services through cooperation with the client
- The participation in the client's design process
- Cost reduction
- Together solving problems through good communication
- The client's necessary made investments to meet the common objectives.

Philip Kotler, the parent of contemporary marketing, believes that the value chain of a firm is as strong as its weakest link. The success of the firm depends on how well each department performs its task, to create value for the client, and how well the company manages to coordinate the activities of the different departments, as well as the upstream relationship with the suppliers. We can take the example of the huge Wal-Mart retailer, with the slogan "save money and live better", which, as you can see, aims, as a general goal, at low prices. If the purchasing department cannot get the lowest prices from suppliers, or if the operating department cannot distribute merchandise at the lowest cost, then the marketing department keep its promise to offer low, unbeatable prices. We are talking here about a trustworthy relationship between the wholesaler and the retailer, based on regular information and reports. A true marketing orientation implies that the entire business activity of the company is obsessed with creating customer value and perceiving itself as a bunch of processes that define, create, communicate and deliver value to its customers in a profitable way.

We can take the example of McDonald's. Why do you think the world is crowding at McDonald's? People do not clutter at McDonald's just because they like the hamburger of this chain of stores. They are piling up to the system they offer, not just to their food products. Throughout the world, McDonald's value-adding system is a perfectly suited system to market requirements, providing a high standard of quality, service, cleanliness and value. The company is effective only to the extent that it establishes successful partnerships with its franchises and suppliers, as well as with other entities, to jointly creating the place and the preferred way for serving the customers.

Today, more and more companies are collaborating with other supply chain suppliers - vendors, distributors and ultimately customers - to improve the performance of the value-added network to the customer.

Marketing information has no value until it is used to discover relevant customer details and make better marketing decisions. The information system must make the information available to managers and those who need it when they need it. In many cases, this means performing periodic performance reports - but not only additional orders for stock re-inventing, sales developments, promotional campaign periods, other reports and sales developments, but also up-to-date information and reporting of study results research, all being for managers.

Philip Kotler also believes that marketing managers may need information in addition to those typically received for special, or emergency situations. For example, a manager, or sales firm having problems with a large customer will need a summary of the sales made and the profitability of the recent transactions. We can take the example of a brand manager who can request an assessment of the media visibility resulting from launching an advertising campaign. That is why, the distribution of information in this day involves the transmission of information available in a light, urgent and friendly manner for the user, the supplier.

By creating a product and making it available to buyers, it is necessary to establish relationships not only with potential buyers but also with the main suppliers and sellers in the company's supply chain. This chain made up of partners located upstream and downstream. The upstream ones are companies that provide raw materials, different components, spare parts, information to create a product. Usually, marketing activity in Romania has focused its attention on the downstream levels of the supply chain, especially to customers. The supply chain term can be considered limited because it only addresses the production and sales part of the business. This term specifies that raw materials, production needs, should serve as a starting point for market planning. We can use the term "chain of demand" because it recommends connecting to the market and its measures. With this in mind, planning starts with identifying the needs of the target customers to which the company responds by establishing a chain of resources and activities, in order to create value for the consumer. However, as regards the demand chain, the vision is limited as it addresses the linear step of the production and consumption transactions. The big companies are increasingly concerned with building and coordinating a value-added network, which is proving to be very complex and in continuous development.

From a conceptual point of view, it is recommended that channel distribution members be consistently coordinated and motivated to achieve the desired efficiency. The firm must sell not only through intermediaries, but also sell the goods to them and together with them. It is recommended that most companies consider their intermediaries as clients and partners; to engage in strong management of relationships with them to conclude long-term partnerships with channel members. This creates a value distribution system that meets both the needs of business and business partners on the market. Auchan is also doing business through trade marketing services offered to AIER.

Philip Kotler and Gary Armstrong consider integrated logistics management to be the logistics concept that focuses on teamwork - both within the company and across channel organizations - to maximize the performance of the entire distribution system. Today, more and more companies are adopting this concept of integrated logistics management. It recognizes that we provide better customer service by linking the links to each other,

reducing distribution costs, teamwork, both within the company and between marketing channel organizations. Within the company, different departments of the company need to work closely together to maximize their own logistics performance. Importantly, the organization must integrate its logistics system with those of its suppliers and customers to maximize the performance of the entire distribution network. In our case, between Auchan and AIER, through the trade marketing services offered to the latter, the strengthening of this partnership relationship is confirmed.

All companies have to do more than to improve their own logistics. They must work with other channel partners to improve the entire distribution of that stream. The members of a marketing channel are closely tied to their work to create customer value and build customer relationships. A company's distribution system is the supply system of another. The success of each member of the marketing channel depends on the performance of the entire supply channel. Intelligent companies, based on marketing principles, coordinate their logistics strategies and strengthen their partnerships with suppliers and other market players to improve their customer service.

The authors, Manchester Business School's Paul Cousins, Southampton University's Richard Lamming, Benn Lawson of Queen's University of Belfast, Benn Lawson, and Brian Squire of Manchester Business School both believe that the supply process and the management strategy of the company's supply strategy play a very important role in the work of an organization. The subject of business-to-business relationships is, from a managerial point of view, one of the most debated and potentiated aspects of supply chain management. This is due to the fact that supply chain management can be viewed from a variety of perspectives. At a general level, that is to say, at the firm level, through relationships that occur with another or with other commercial companies, through all the processes, flows and documents that change between them, just as it appears in the relationship between Auchan and AIER. At the company level, through the activities of the purchasing and purchasing department, through framework contracts with suppliers, but also through other liaison between departments, such as the synchronization of the procurement and marketing department or sales. The latter formulating and forwarding reports and sales developments to suppliers and the purchasing department for the promptness of the orders and the mutual improvement of the activities. All these relationships are important and must be viewed concurrently, not mutually exclusive. In other words, when we consider the concept of inter-firm relationships, we should think about both, levels and more than that, on all intra-institutional activities.

The processes that take place between the firms in the market must be visualized and understood as best as possible in order to create efficiency of all the activities addressed to the final customer. In order to perform an efficient process, it is important to consider the allocation of information resources for the expected order at the time and the time it takes. It is also very important for the company to have these resources in order to manage the entire delivery process. The basic objective of these relationships is to reach the maximum value of the output. The effectiveness of the entire delivery process is clearly based on the relationship between the two firms. It is widely accepted in the literature that engaging in a purchasing / delivery context approached strategically and in a marketing vision can improve the financial performance of a company and even its competitive position on the market.

The authors, University of Arizona's Robert Monczka, Robert Handfield of North Carolina University, Larry Giunipero of the University of Florida, and James Patterson of the



University of Illinois and others believe that the supply system must be based on global suppliers Integrated logistics services. These integrated services also include, besides all normal activities of storage, transport, storage, handling, containerization, palletizing, etc, specific marketing forecasts and marketing activities such as trade marketing.

All organizations on the market try to identify and detail the elements of the service you want. Logistics services fall into this category. Product offerings must offer better value through all of these ancillary elements to the delivery process. These efforts are at the center of logistics operations and can be considered to be based on all market documents. We can exemplify through the trade marketing services provided by Auchan.

Most of the services that accompany the physical process and the succession of actual events on the market are not at all visible and can not be quantified. It is very important to specify that their lack would lead to a hindrance to the whole economic process, the loss of certain amounts of money, etc.

From a marketing point of view, most definitions emphasize the utilities, benefits and rewards that service activities provide to consumers.

We can synthesize service features: intangibility, inseparability, variability and perishability.

Services are characterized, first of all, by intangibility. The immaterial aspect of the service makes its assessment difficult and often subjective. Unlike the product, which exists in itself, the service is generally impassable, intangible, cannot be seen, tried, tasted, etc. (For this reason, services are also called "invisible", and trade in services: "invisible trade").

Virtually they have a permanent goal, as marketing specialists point out "tangible" services. Due to the intangibility of promotional services, service companies try to tighten the offer, so promotion campaigns are much more difficult to draw. The non-material nature of the service can be associated with another feature, namely the incompetence (services that do not have a material form cannot be stored). This feature is also call perishability. It can cause a number of shortcomings, especially in ensuring supply-demand balance and effective service delivery. Thus, services once offered, but not used, represent loss of human and material means, and they cannot be preserve.

With regard to the first features, there is also the non-durability of most services. This refers to the fact that the effects of services are "volatile", i. e. they are consumed at the time of being produced, and services cannot be kept for the future. It is also one of the main reasons why, for a long time, services were considered unproductive and therefore less important.

Services are often unique, they may appear to be provide differently from firm to firm, but the underlying economic objective is the same. The same is true for all Auchan's trade marketing services to all of its suppliers. We can also talk about service productivity as a relationship between outputs and inputs.

Several studies by authors from countries such as England, Sweden, Greece, Finland, Brazil, Ireland, the USA and the Netherlands show that the relationship between a supplier and a distributor must also take into account different cross-border variables related to the marketing environment (the micromedia and macromedia) and beyond, bringing again a first plan with a number of risk factors that need to be diminished by link services, marketing services and trade marketing services.

Marketing literature deals with the quality of the supplier-distributor relationship through the commitment of both partners, addressing the satisfaction of selling the products to the final consumer. This sale brings added value and a financial boost to both companies.

The quality of services within the marketing channel has a very strong function to develop relationships between the parties. They are based on trust, commitment and satisfaction, and are delivered through a continuous flow of information on supply needs, future

developments, sales made, current products and those under promotions, etc. From a physical and cultural point of view, the distance within international distribution channels leads to the creation of larger structures requiring the exchange of information between the parties. Rapid fluctuations in supply and demand are conditions that undermine traders' confidence in the market and lead to the need for accurate forecasts (reports, developments, movements). These forecasts are needed by both parties. Distributors perform important functions along the value chain, including providing market information, customer contracts, technical support, geographic market coverage, order processing facilities, and more.

It is quite difficult for the retailer to build partnerships with all suppliers, the relationships between them varying in terms of financial strength and, implicitly, negotiation, preferring a relationship of continuity. According to a survey of different suppliers and retailers, conducted in the Nordic market in Sweden and Finland, there have been changes in the organizational structure of the business. Buying and merchandising functions (assortment types, pricing, product promotion, store management) must be managed and integrated by several people involved in these activities. This illustrates the importance of these activities, which are also found in Auchan's trade marketing services.

### **Conclusions**

There are studies in literature that show that downstream information is necessary and essential for good collaboration between the buyer and the supplier. These links and information downstream of the marketing channel are close to find consumers and are particularly important, we can even say vital to the top link. The informational link between the two links is observed.

Once a vendor maintains close links with distributors, he can get information about consumer reactions to his products. He can quickly adapt to the market in terms of production processes to improve the end product for the consumer.

From the point of view of the marketing activity, the relationship with the client is particularly important and it is highlighted at the organizational level of all researches made in the field, the feedback from them, their preferences, the establishment of certain market trends in the direction of consumption and, of course, the level of sales. All this information leads to the formulation of new ideas in the ongoing activity, to facilitating operational planning and is necessary for all entities upstream of the distribution chain; Information such as that provided by Auchan to AIER.

A long-term relationship between supplier and distributor reduces risks and leads to more efficient business.

As regards the trade marketing services provided by Auchan to AIER, we can specify:

- Placing certain products in more visible places leads to increased sales for both partners.
- Most products marketed by Auchan are subject to promotions sooner or later.
- The Distributor has a major interest in promoting its own brand, given that a retailer has a very large variety of brands.
- Increasing the interest of consumers on their own brand.

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## FURTHER INSIGHTS INTO TOURISM SUPPLY AND DEMAND PATTERNS OF EUROPEAN COUNTRIES

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### Abstract

The globalization phenomenon has conducted to an enhanced access to more and more touristic destinations all over the world, increasing the key-driver role of tourism on the economic and social development. In 2015, at international level, tourism sector had a direct contribution of 3% of total GDP, while its total contribution reached 9,8% of total GDP. The number of tourist arrivals increased by 4,6% in 2015 and the international tourism receipts grew by 4,4% in real terms. In addition, Europe remained the most visited region in the world and ranked first with more than 600 million tourist arrivals (51%) and tourism receipts of 451 billion US dollars (36%).

This paper aims at identifying the profile of tourism participating countries, considering the tourism demand and supply perspective. Principal Component Analysis is conducted on EUROSTAT data, covering 27 European countries, 2015. It enables identifying significant influence factors on the tourism demand and supply in recent years, as well as various patterns in countries' touristic behavior. Two main components were extracted from the initial data set, concentrating 70,643% of the total variability of the data and describing the touristic demand and supply, together with their determinants.

**Keywords:** Country profile, Principal Component Analysis, Tourism demand, Tourism supply.

**JEL Classification:** C38, L83

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### Introduction

Due to the globalization phenomenon, which made the touristic destinations more accessible, the key-driver role of tourism on the economic and social development has increased. Europe remained the most visited region in the world and ranked first with more than 600 million tourist arrivals (51%) and tourism receipts of 451 billion US dollars (36%).

In this paper the Principal Component Analysis was conducted in order to identify the profile of tourism participating countries, using determinants of tourism demand and supply. Two main components were extracted from the initial data set, concentrating

70,643% of the total variability of the data. These components will be used in future work to link the tourism supply and demand determinants in a regression model.

### **Literature Review**

Due to the increasing role of tourism activity in enhancing new economic opportunities, researchers all over the world have tried to identify its determinants and to find the best ways to maximize its efficiency.

Craggs (2008) conducted studies on visitor perception, behaviour and experience at urban waterfront destinations, identifying that frequency of visits and age influence the overall satisfaction and exploring various patterns of visitors' expenditures.

Gomezelj Omerzel (2011) inquired for various factors that influence the demand for a tourist destination in Slovenia, focusing on stakeholders' perceptions and providing a measurement model of competitiveness indicators.

Leatherman and Marcouiller (1996) proposed an estimation method of the tourism contribution to employment and income generation in a touristic region, using secondary data; they emphasized the necessity of distinguishing between „out-of-region demand attributable to travellers/visitors versus seasonal home-owners”.

Pérez-Dacal, Pena-Boquete and Fernández (2014) provided a measurement procedure of tourism specialization, considering both tourism and supply sides, based on Spain case; amenities were included in the range of influence factors as well.

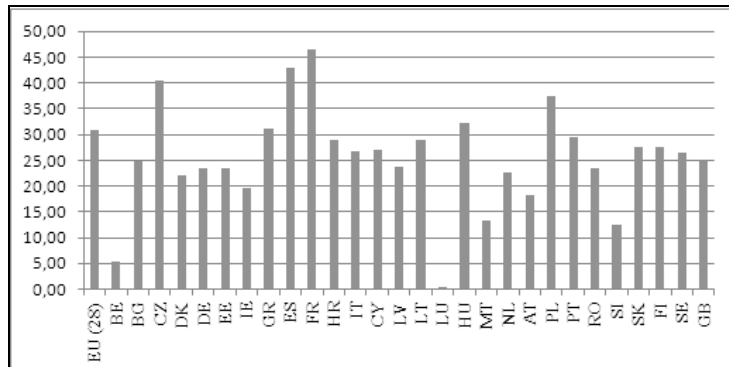
Brakke (2005) performed a study on the international tourism industry, proposing a fixed-effect demand model, in order to express the behaviour of the number of international tourist arrivals (the explained variable) on the following explanatory variables: income per capita in origin country, price competitiveness index for the destination country and a political variable.

Sinclair (1998) studied the behaviour of the tourism receipts/arrivals depending on the income per capita, relative prices, exchange rates, transport costs and dummy variables. Many tourism demand models have considered as one of the independent variables the income elasticity, most studies finding this variable to have a significant impact on tourism demand: Gray, (1966). Other studies focused on the effect of terrorism on the tourism demand. Thus, Enders, Sandler and Parise (1992) found that terrorism have a significant impact on tourism receipts, leading to an income decrease and to a change of the touristic destination. Drakos and Kutan (2001) revealed that the impact of terrorism on the touristic demand might be significantly different from one region to another.

### **Characteristics of European tourism demand and supply**

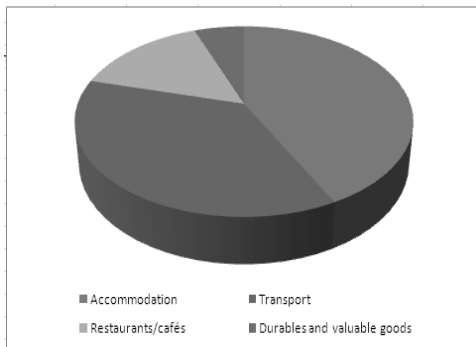
The globalization phenomenon has conducted to an enhanced access to more and more touristic destinations all over the world, increasing the key-driver role of tourism on the economic and social development. In 2015, at international level, tourism sector had a direct contribution of 3% of total GDP, while its total contribution reached 9,8% of total GDP (Travel&Tourism. Economic Impact 2016). The number of tourist arrivals increased by 4,6% in 2015 and the international tourism receipts grew by 4,4% in real terms. In addition, Europe remained the most visited region in the world and ranked first with more than 600 million tourist arrivals (51%) and tourism receipts of 451 billion US dollars (36%) (UNWO. Tourism Highlights, 2016 Edition). Domestic participation in tourism for personal purposes – at EU 28 level - remained at an approximately constant level, slightly exceeding 30% of total population in 2015. France recorded the highest indicator level

(46,56%), followed by Spain (42,96%). On contrary, Luxembourg ranked last – with only 0,38% of domestic population participating in tourism, preceded by Belgium – with 5,36% (Figure no. 1).



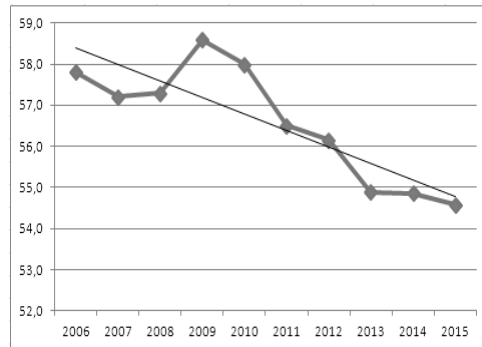
**Figure no. 1: Participation in tourism for personal purposes – domestic - (%), 2015**  
 Source: authors' processing, based on EUROSTAT data.

The average expenditure per night for domestic tourists was 48,12 Euro/night at EU (28) level, with a maximum value of 193,5 Euro/night in Luxembourg, followed by 110,56 Euro/night in Austria and 96,3 Euro/night in Denmark. The lowest values were recorded in Czech Republic and Latvia (below 15 Euro/night). At European level, the accommodation expenditure represents approximately 43% out of total travel expenditure, the transport expenditure 37%, food & beverage expenditure 15% and expenditure for acquiring durables and valuable goods 6% (Figure 2).



**Figure no. 2: The structure of travel expenditures EU (28), 2014 (%)**

Source: authors' processing, based on EUROSTAT data.



**Figure no. 3: Total nights spent by residents (%) EU (28), 2006-2015**

At EU (28) level, the total number of nights spent by residents was slightly above 50% between 2006 and 2015, experiencing a downward trend. The maximum value was reached in 2009 (58,6%), while the minimum level was in 2015 (54,58%). In Romania it was recorded the highest value of the indicator (80,98% in 2015), followed by Poland and Germany (around 79%). Malta and Croatia had reached the lowest level (below 10% in

2015) (Figure 3). In EU 28 the accommodation capacity followed an upward trend between 2012 and 2015, from almost 553 thousand establishments to 578 thousand. By country, the highest accommodation capacity exists in Italy (167,7 thousand establishments in 2015), exceeding by a significant number all the other countries.

### Data and Methodology

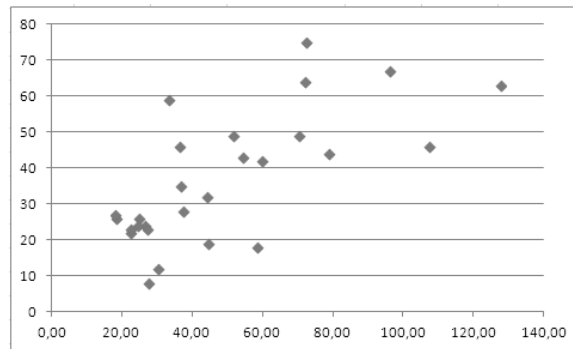
The analysis aims at identifying the profile of tourism participating countries, considering the tourism demand and supply perspective. Principal Component Analysis is conducted on EUROSTAT data, covering 27 European countries, 2015. It enables identifying significant influence factors on the tourism demand and supply in recent years, as well as various patterns in countries' touristic behaviour. The analysis initially covered ten variables characterizing the socio-economic environment which influences the tourism activity in European Union countries. As a result of correlation matrix analysis, there were removed the very highly correlated variables and the very weakly correlated variables as well. The final eight variables refer to the following pillars (Table no. 1):

**Table no. 1: List of variables**

Variable	Pillar	Significance
Gross Domestic Product ( <i>GDP</i> )	Economic, social and environmental development	Summarizes the economic development level of a country (million Euro)
Average Annual Earnings ( <i>EARNINGS</i> )		Reflect the average annual net earnings in a country (Euro)
Greenhouse Gas Emissions ( <i>GGE</i> )		Presents annual total emissions in relation to 1990 emissions (units of CO2 equivalents).
Number of Establishments ( <i>ESTABLISHMENTS</i> )	Tourism supply	Measures the number of accommodation establishments (hotels; holiday and other short-stay accommodation; camping grounds, recreational vehicle parks and trailer parks) (number)
Employment in accommodation and food services ( <i>EMPLOYMENT</i> )		Measures the number of people employed in accommodation and food services (Thousand people)
Participation in tourism ( <i>PART_TOURISM</i> )	Tourism demand	Participation in tourism for personal purposes – one night or over (%)
Average expenditure per night ( <i>EXP_PER_NIGHT</i> )		Measures the total consumption expenditure made by a visitor for a 1 night and over trip (Euros per night)
Internet purchases by individuals ( <i>INTERNET_PURCHASING</i> )		Measures the individuals' Internet online purchases made in the last three months (Percentage of individuals)

*Data processing was performed using SPSS Ver. 20.*

Between the total consumption expenditure made by a visitor for a 1 night and over trip and the use of the Internet to purchase goods and services - for example - there is a rather strong positive correlation, but not so strong to eliminate one of the two variables within the analysis (Figure 4). The result could be explained by the recent expansion of ICT technologies, the increasing access to modern technology and the increasing Internet usage for acquiring goods and services, including tourism services.



**Figure no. 4: The correlation between the average expenditure per night (Euro/night) and the use of the Internet to purchase goods and services (% of individuals)**

*Source: Authors' processing, based on EUROSTAT data*

As the values of the variables are significantly different, they were standardized. Kaiser-Meyer-Olkin Measure of sampling adequacy is 0.657, indicating that the Principal Component Analysis is suitable for the data considered. The value of Bartlett's Test of Sphericity (145.524) reveals that there is no enough evidence to accept the null hypothesis, according to which the correlation matrix is an identity matrix. Thus, we reject the null hypothesis (significance level: 0.000) (Figure 5).

KMO and Bartlett's Test	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	,657
Approx. Chi-Square	145,524
Bartlett's Test of Sphericity	df. 28
Sig.	,000

Component Transformation Matrix		
Component	1	2
1	,768	,641
2	,641	-,768

**Figure no. 5: Bartlett's Test of Sphericity**      **Figure no. 6: Component Transformation Matrix**

*Source: made by the authors, using SPSS 20, based on EUROSTAT data*

Communalities table reveals large shares of each variable variance explained by the two principal components extracted. As a result of data projection on the first two components, they explain 70,643% of the total variability of the data set (43,449% for the first component and 27,194% for the second one) (Figure 7).



Component	Total Variance Explained					
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,476	43,449	43,449	3,476	43,449	43,449
2	2,175	27,194	70,643	2,175	27,194	70,643
3	,967	12,088	82,730			
4	,679	8,489	91,220			
5	,384	4,798	96,017			
6	,157	1,964	97,981			
7	,117	1,466	99,448			
8	,044	,552	100,000			

Extraction Method: Principal Component Analysis.

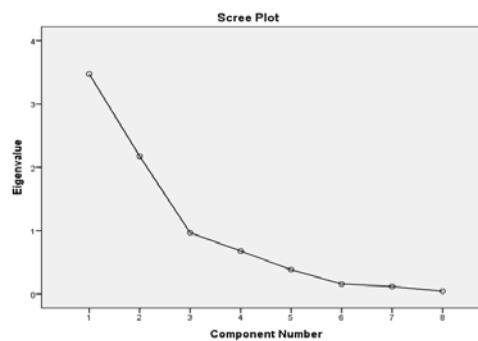
**Figure no. 7: Total Variance Explained**

	Component	
	1	2
	Zscore(Earnings)	,860
Zscore(Internet_purchasing)	,822	,325
Zscore(Exp_per_night)	,757	,413
Zscore(GDP)	,751	-,539
Zscore(Establishments)	,456	-,753
Zscore(Employment)	,688	-,693
Zscore(Part_tourism)	,417	,548
Zscore(GGE)		,341

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

**Figure no. 8: Component Matrix**



**Figure no. 9: Scree Plot**

Source: made by the authors, using SPSS 20, based on EUROSTAT data

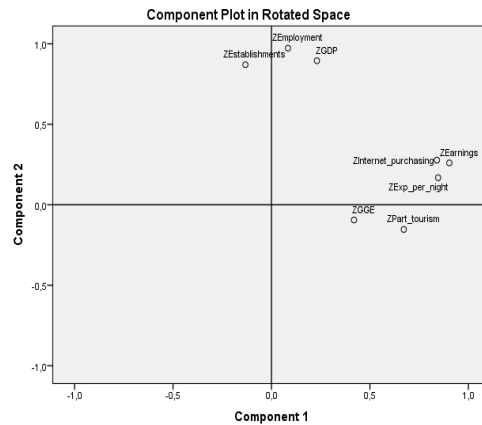
The correlation coefficient between the two factors extracted is 0,641, revealing a relatively strong positive relationship between them (Figure 6). After applying the factor rotation procedure, the structures of the two components are (Figures 8, 9, 10 and 11):

- The first component includes variables related to average annual net earnings, percent of individuals purchasing goods and services on the Internet, Greenhouse Gas Emissions on one hand and variables related to tourism demand (average travel expenditure and percent of population participating in tourism activity for personal purposes) on the other hand; consequently, this component was named **Tourism demand and its determinants**;
- The second component includes variables related to economic development level (GDP) and variables related to tourism supply (employment level in accommodation and food services and number of accommodation establishments for touristic purpose); consequently, this component was named **Tourism supply and its determinants**.

**Rotated Component Matrix<sup>a</sup>**

	Component	
	1	2
Zscore(Earnings)	,903	
Zscore(Exp_per_night)	,846	
Zscore(Internet_purchasing)	,840	
Zscore(Part_tourism)	,672	
Zscore(GGE)	,419	
Zscore(Employment)		,973
Zscore(GDP)		,895
Zscore(Establishments)		,870

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.  
 a. Rotation converged in 3 iterations.



**Figure no. 10: Rotated Component Matrix**      **Figure no.11: Component Plot in Rotated Space**  
 Source: performed by the authors, based on EUROSTAT data

From the tourism demand and its determinants perspective, it was performed a multi-criteria ranking (by the five variables included in the first component); its results emphasize that developed countries in Northern and Western Europe rank on best places (Denmark, Germany, Finland, Ireland and the UK), while countries in southern Europe or former socialist countries rank on the last places (Portugal, Romania or Bulgaria). Technology plays an important role in increasing the individuals' participation in tourism activities; most of the best-ranked countries (Denmark, Germany and Great Britain) experience the highest shares of individuals who use Internet to acquire goods and service, including tourism services. However, some of these countries have in common a less favourable position regarding the air pollution (higher Greenhouse Gas Emissions in 2015), even than some of the last-ranked countries (Romania, Bulgaria).

Similarly, from the tourism supply and its determinants perspective, a multi-criteria ranking has been applied (by the three variables included in the second component); its results reveal that UK, Italy, Germany, France and Spain are the top countries, while Estonia, Latvia, Lithuania, Cyprus and Malta are the last ranked countries. The best-ranked countries in the hierarchy share the most favourable position, considering all the three ranking criteria altogether.

**Conclusions and future work**

The analysis conducted in the present paper proposes an identification of tourist behaviour patterns of European countries, based on a number of tourism demand and supply indicators, and on several potential influencing factors. Thus, there were included eight variables in the analysis, whose values characterize the economic, social and environmental development level for 27 European countries, in 2015. Two main components were extracted from the initial data set, concentrating 70,643% of the total variability of the data. The two main components describe the touristic demand and supply, together with their determinants. The first component (*Tourism demand and its determinants*) includes two indicators that measure - physically and financially - the tourism demand: the average travel expenditure (per night) and the percent of population participating in tourism activity for personal purposes. Countries with significant tourist flows are characterized by higher

employees' earnings and increased share of individuals purchasing goods and services on the Internet, but also by higher Greenhouse Gas emissions. The second component (*Tourism supply and its determinants*) includes two indicators that measure the tourism supply: employment in accommodation and food services and number of accommodation establishments for touristic purpose. Countries with significant tourism supply are characterized by high GDP levels, enhancing financial resources for investments in the creation, expansion and modernization of tourism base and infrastructure. Some of the European countries – like Germany or United Kingdom – are among the top countries by both criteria: tourism demand and supply.

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## **SUSTAINABLE UNIVERSITIES IN GERMAN SPEAKING COUNTRIES – AN OVERVIEW**

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### **Abstract**

Sustainability takes a leading role in the conduct of nations, companies and society, not only concerning environmental issues but increasingly focusing on sustainable management as an important social and economic factor. Universities have to face these challenges, too, particularly as they provide knowledge and skills necessary to cope with global challenges. Therefore, universities do not only have to ensure that sustainability finds its way onto a syllabus, they also should act sustainable themselves. This paper provides a general overview of the current status of sustainability efforts in the field of higher education in German speaking countries. Therefore, a sample of 40 best-practice universities throughout Germany, Austria and Switzerland was investigated. As a result, this survey does not only reveal how divergent the different concepts of implementing sustainability are, but rather offers points of approach for further research leading to a concise definition of sustainable universities.

### **Keywords**

sustainability, higher education, sustainable universities, sustainable education, education for sustainable development, governance.

### **JEL Classification**

I23, O30, Q01

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### **Introduction**

In 2015, the United Nations passed 17 global goals for sustainable development (SDG) regarding economic, social and ecological issues (UN, 2015). Though every member state of the United Nations approaches differently, institutions for higher education play a key role in achieving these goals. They impart knowledge and skills necessary to face the challenges of global issues like climate change or poverty. Beside setting an ideological and political framework the United Nations even propose substantial guidance. For example, in 2008 the ‘Decade Education for Sustainability’ was initiated (UNDESD, 2008), and in 2012, the United Nations Conference on Sustainable Development in Rio de Janeiro called for a ‘Commitment to Sustainable Practices in Higher Education Institutions’ (HESI, 2012). The recent publication ‘Education for Sustainable Development Goals: Learning

Objectives' released in 2017 "identifies learning objectives, suggests topics and learning activities for each SDG, and describes their implementation on different levels from course design to national strategies" (UNESCO, 2017, p.8). However, the concrete way universities put these goals into practice differ widely. Most universities claim to be sustainable, but only few of them developed holistic approaches covering all essential characteristics of a comprehensive sustainability scheme. Therefore, the aim is to give an overview of the current state of the implementation of sustainability principles at universities in German speaking countries.

### **1. Sustainable universities**

Institutions for higher education actively take part in the social development of their respective countries, as they both are educational and scientific institutions, consumers and employers. They even have a major influence on the social environment of a town or region (UN, 1992, ch.31,35). Therefore, these institutions must assume responsibility for creating a long-term, future-proof and thus sustainable development (Dyllick and Hockerts, 2002). Although "there is no generally accepted definition or criteria of what defines a 'sustainable university'" (Bohunovsky et al., 2014, ch.1), there can be identified fundamental areas all universities have to deal with.

Universities impart skills to their students thus enabling them to contribute to a knowledge-based society characterized by life-long-learning. Therefore, universities should not only focus on teaching sustainability as a content, but must also provide employability skills. Consequently, sustainability needs to be integrated into the curriculum. Furthermore, universities need to develop didactic methods that "are appropriate to teach critical reflection, to raise awareness of the strong interrelations between the topics or to demonstrate the high complexity of the challenges as well as the possible solutions" (Bohunovsky et al., 2014).

Through interdisciplinary and problem-oriented research in the field of sustainability universities can meet the requirements of all three pillars of sustainable development. Their solutions can contribute to develop and enforce problem-oriented solutions in these fields (Allianz Nachhaltige Universitäten in Österreich, 2014, p.3). Networking and multidisciplinary cooperations within and between universities, either national or international, as well as with companies, promote the transdisciplinary knowledge transfer. In this way, they significantly increase the acceptance of the principle of sustainability throughout society (Mueller, 1988).

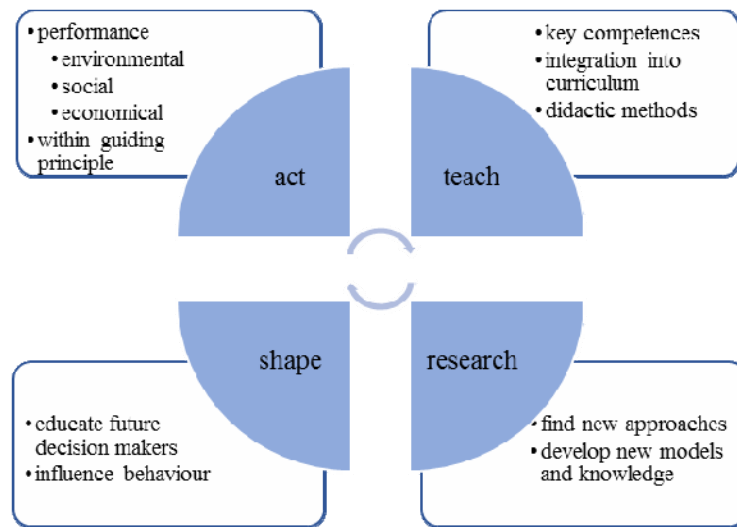
As opinion leaders universities influence the development and living conditions of future generations, in this context being a role model for performance, innovation, integrity and, not least, sustainability. Future decision-makers and teachers have to be educated with a focus on the enhancement of environmentally conscious attitudes, capabilities and behaviour patterns as well as ethical responsibility (Barth and Rieckmann, 2016, ch.7). Educating, promoting, encouraging, and building the awareness for sustainability in combination with creating the appropriate structural, spatial, and financial framework leads to a number of students' initiatives, where they can develop skills by learning through experience (North, Reinhardt and Sieber-Suter, 2012, p. 87).

Dierkes and Marz state that an organization's guiding principles represent an anticipation of the future, derived by what is considered to be feasible and desirable (Dierkes and Marz 1998, p.379). These being a combination of long-term interests and standards, guiding principles should guide the actions of all stakeholders involved, mobilize them and shape

their identity (Dierkes, Marz and Hoffmann, 1992, p.52). According to Hassel the importance of guiding principles exceed mere imagebuilding and can be seen as a part of corporate action (Hassel et al., 2000).

Universities must also act as learning organisations. By continuously improving their concepts of sustainable development they act sustainable. One example is ‘Green Campus’, a term which covers the voluntary commitment to act environmentally-conscious (Sharp, 2002). Another approach is to be audited by independent third parties. The most demanding certification in this context is the Eco Management and Audit Scheme (EMAS). Developed by the European Commission for companies and other organizations EMAS evaluates, reports, and improves an organization’s environmental performance (Council Regulation (EC) No. 1221/2009).

The following figure 1 illustrates the findings, matched to four fundamental areas of action.



**Figure no. 1: Sustainable Universities**

Source: Authors' contribution based on Müller-Christ, 2011, pp.60-71, Allianz Nachhaltige Universitäten in Österreich, 2014, UNESCO, 2017

## 2. Research methodology

This paper aims to give an overview of the wide range of individual interpretations of what a sustainable university is. In order to provide a suitable basis for the analysis, a qualitative sample of 20 German, 11 Austrian and 9 Swiss universities has been selected according to the intensity sampling method. This method selects a small number of rich cases which provide in depth information of the phenomenon of interest (Patton, 2002). Because this method requires prior exploratory work, universities referred to as best practice or role model in papers and surveys dealing with the development of sustainability efforts at universities are included in this study.

For Germany these are best-practice universities elaborated in a report published within the framework of a project funded by the German Federal Ministry of Education and Research (Weisser, Geibel and Dembski, 2016?). For Austria a paper about sustainable universities in Austria published by Bohunovsky et al. was taken (Bohunovsky et al., 2014), as well as

for Switzerland a survey from 2010 about sustainable development in teaching and research of all twelve Swiss universities (Hofmänner and Pohl, 2011).

All universities described in these papers as being or acting in a sustainable way were selected and, to confirm the accuracy and topicality of the selection, their websites were reviewed. In order to account for current developments additional universities were selected by conducting an internet search containing the terms ‘sustainability’, ‘university’ and ‘Germany’, ‘Austria’ or ‘Swiss’ respectively. In the final step, the individual concepts of implementing sustainability were matched with the major areas of action (see fig. no.1).

### **3. Results**

With the support of the Ministry of Science in Vienna, the Alliance of Sustainable Universities in Austria was established in 2012. Since then ten Austrian Universities (status of 2017) became members (Alliance of Sustainable Universities in Austria, 2017). With its close cooperation of government and universities Austria is mentioned as a role model and best practice for sustainability development in higher education institutions (Michelsen, 2014, Ronzheimer, 2014). The Alliance developed a handbook for the development of sustainability concepts at universities as a reference framework. It proposes criteria, objectives and measures as orientation, however, the specific design and implementation are left to the discretion of the respective university (Bohunovsky et al., 2014).

Unlike in Austria, there is no overarching alliance throughout Germany, but many regional, trans-regional or international groups, centers and alliances. Taking a closer look at German universities, a wide range of miscellaneous programs, networks, projects and initiatives with a focus on sustainability can be found. The concepts and application areas differ widely. There are universities which have a holistic approach towards sustainability as Leuphana Lüneburg or HNE Eberswalde, whereas the majority of universities offer specific activities or lectures, without embedding the awareness of sustainability throughout all processes and the entire organization (Weisser, Geibel and Dembski, 2016?).

In Switzerland the ETH Zurich as well as EPFL Lausanne take a leading role concerning sustainability in higher education, having initiated many projects and networks in this field, e.g. ‘Seed Sustainability’, encouraging “student research in sustainability-related topics, promotes successful cooperation between scientific theory and practice, and unites the needs and expectations of research, education and industry” (Seed Sustainability, 2017).

Higher education institutions of all mentioned countries refer to the freedom of research and teaching: As the purpose of the universities’ strategic planning is to establish the fundamentals of sustainable development for society, the particular implementation shall be left to the researchers, lecturers and students (von Hunnius, 2016).

The variety of approaches will exemplarily be demonstrated by how universities integrate sustainability into their guiding principles. Only seven universities include the orientation on ecologically, economically and socially sustainable development explicitly into their mission statement.

Instead, the University of Salzburg established an environmental model that states the protection of the environment and a careful use of resources. What is more, this environmental model is closely linked to the country’s strategy for climate and energy ‘Salzburg 2050 klimaneutral.energieautonom.nachhaltig’ (Salzburg 2050 climate-neutral, energy autonomous, sustainable). ETH Zurich and the University of Vienna (BOKU) have adopted the voluntary ‘Sustainability Reporting Guidelines’ of the Global Reporting Initiative (GRI) and the principles of ISCN/GULF Sustainable Campus Charter. They thus



display environmental issues, energy indicators, social and financial aspects as well as governance. Similarly the University of St. Gallen publishes a PRME-progress report (Principles for Responsible Management Education, launched by UN Global Compact initiative) on activities, commitment, and target achievement concerning responsibility and sustainability.

Only two universities (HNE Eberswalde and Leuphana Lüneburg, both Germany) adapt the principle of sustainability to all processes and the entire organization holistically.

The following table 1 highlights the different levels of integration of sustainability into the universities' guiding principles.

**Table no. 1: Level of integration of sustainability into guiding principles**

Level of integration	Universities
Holistic Approach, University for sustainability	University of Eberswalde, Leuphana University Lüneburg
Sustainability model/concept	Freie Universität Berlin, University of Eichstätt-Ingolstadt, University of St. Gallen, University of Zurich (UZH), Karl-Franzens-University of Graz, Graz University of Technology, Medical University of Graz, University of Music and Performing Arts Graz, Vienna University of Economics and Business
Mission statement	University of Hamburg, Freie Universität Berlin, University of Bremen, Bern University, EPFL Lausanne, ETH Zurich, Bern University of Applied Sciences (HAFL)
Environmental model	University of Salzburg
Sustainability report	ETH Zurich, University of Vienna (BOKU), University of St. Gallen

*Source: Authors' contribution based on internet research of all universities surveyed*

All other universities researched do not explicitly mention the integration of sustainability policies into their guidelines on their websites. Further research could aim on the question if these universities either only do not communicate their sustainability strategy or do not have any, though they all engage demonstrably into sustainability issues.

Regarding the aspect of sustainable conduct like being proactive on green issues and/or having themselves certified as being sustainable there can be found numerous initiatives. The University of Eberswalde was elected as Germany's greenest university in 2009 by the internet portal Utopia and claims to be climate-neutral since 2014 as sole university in all countries researched (Utopia.de, 2009). The University of Kiel implemented the so-called 'klik climate-concept 2030' to become climate-neutral, too (UTEC, 2013). The Paris Lodron University of Salzburg established 'PLUS Green Campus', a sustainability program which aims at changing the university into a 'Green University' by investing in greener buildings, practices, and products, as well as ways of engaging staff and students (PLUS). The University of Erfurt initialized a 'working group sustainability' which takes care of ecological stationary, fairtrade products, etc. (AG NE, 2017). For promoting fair trading on campus the University of Bayreuth (being committed to Green Campus, too) received the quality label 'Fairtrade University' by TransFair Deutschland e.V. in 2016 (TransFair, 2016).

Only seven German universities are wholly or partially certified by EMAS. Two of them, HNE Eberswalde and CAU Kiel, won the EMAS-award for innovative environmental measures and benefits. The University of Erfurt received the environmental label 'Umwelt-siegel Ökoprofit' twice, which awards outstanding performances in and commitment to the sustainable handling of resources on campus (Voigt, 2014).

Furthermore, the survey revealed other large numbers of variations and best practices in the fields identity, education, research and knowledge-transfer. The principle of sustainability is institutionalized, for example, in executive committees, one chancellor for sustainability, offices or officers for sustainability, a sustainability board, faculties, institutes, chairs, and centers for sustainability as well as work groups for sustainable universities. The discussion platforms, centers for research and projects are conducted either by the universities themselves, students initiatives or national as well as international networks and cooperations. In the field of education for sustainable development, there can be found a wide range of single lectures up to comprehensive study programs, seminars and seminar programs, summer schools and training courses.\*

To be holistically sustainable a university has to act in all four areas concurrently:

- To teach sustainability by providing comprehensive study programmes committed to the principles of sustainability.
- To research sustainability issues by promoting sustainability research and developing and launching national and international networks and cooperations.
- To shape the awareness of sustainability by educating future decision makers, promoting projects, students' initiatives, work groups and discussion platforms.
- To act sustainable by holistically including sustainability into the guiding principles, the organisation, and all processes, as well as acting environmentally friendly.

All universities researched in this survey offer innovative best-practice concepts in at least one of the above mentioned four areas, but only few of them address all four areas of equal relevance and importance yet.

### **Conclusions**

Sustainability is increasingly developing into an important factor for universities. From the economic point of view universities help to create social prosperity and technological progress and knowledge. Ecologically, universities lay claim to considerable resources, yet they contribute socially by developing their students' employability and promoting entrepreneurship.

German speaking countries have acknowledged the concept of sustainability; however, the execution and implementation vary. Whilst Austria has developed a full framework which includes all three pillars of sustainability at an early stage, Germany and Switzerland to a great extent leave the institutionalization up to the universities own intention and creativity, just recommending general guidelines.

Further research should be conducted to identify the criteria essential for the success and acceptance of sustainability processes at universities. The implementation of holistic concepts within a university and the concurrent pursuit of inter-university and inter-disciplinary cooperation may lead to a higher level of commitment and in turn promotes and accelerates the implementation of the principles. If that is the case, the governments could take a stronger role by setting guiding principles or frameworks, supervise their

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\* The full results can be requested in detail from the authors.

application and increasingly finance networks and cooperation. Same could apply to financing funds from the EU, thus encouraging to establish the concept of sustainability in universities holistically. As comprehensive concepts and strong alliances lead to a combination of strengths and expertise, new synergies could be created to contribute to a sustainable society.

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## EVALUATION OF OUTSOURCING PERFORMANCES A STUDY OF OUTSOURCING IN THE AREA/FIELD OF NGOS

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### Abstract

Outsourcing has become a business trend which turned into an accepted practice. This paper presents research on outsourcing knowledge processes in NGOs (non-governmental organizations). The study's objective is to identify and evaluate the risks comprised in providing outsourced training services. It presents an empirical and interview based study carried out at an NGO in Israel between 2011 and 2016. During this period, the organization recruited a staff of 94 instructors. Part of them continued working with the organization and others left. We aim to evaluate their outsourcing performances and to find out what the reasons for the fluctuation of the outsourced instructors were.

**Keywords:** NGOs, outsourcing, staff fluctuation, growth strategies

**JEL Classification:** L31, M21, O10

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### Introduction

Between 2008 and 2016 Israel witnessed a number of changes as part of global changes. The government's policy of the privatization of education and social services led to the growth and strengthening of organizations willing to offer services. This article presents a study which aims at investigating the possibility of putting into practice outsourcing services as one of the growth strategies of the organization, and investigates what influences the relationship between the organization and outsourcing.

Entrepreneurial orientation means that organizations are willing to find and exploit new product and market opportunities. Businesses should expand into new and different market segments, therefore, an entrepreneurial orientation points to a business' growth strategies. One of the ways to put into practice growth strategies is by outsourcing.

Outsourcing first appeared during the 1980's as a way of externalizing non-core transactions to a third party supplier. According to Mateiu, Gotesman, Joachim, Maftci (2016), the purpose of this process is to create value add for the company and to consolidate a competitive advantage. It means not only cost cutting. It is also a strategic tool. Mateiu, Mateescu, Buchmüller, Just (2016) explain that outsourcing a business process primarily involves knowledge of global trends and also companies to adapt to consumers and changing market demands.

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More and more companies, NGO's among them, have been opting for outsourcing their human resource (HR) services by using temporary subcontractors. NGOs or non-profit organizations (NPOs) are non-government or trade institutions aiming to find practical solutions to social problems. NGOs are playing a more and more important role in society. Researchers (Anheier, 2005; Lewis, 2007; Rahman, 2003; Salamon et al., 2003 cited in Kuruvila, 2015, p.20) have identified several reasons for this development such as increased knowledge in information technology, a high level of literacy among the population, increased interest in human rights, and environmental and gender consciousness".

### **Methodology**

The study was carried out at an NGO which employed 94 new outsourced instructors between 2011 and 2016. 18 out of them had a positive interaction with the organization. This study aims to map the reasons why a percentage of the outsourced instructors continue working while others cease their connection with the organization after one year. The subjects of the study were 55 instructors (out of the 94: 18 were recruited in 2016, 6 become staff members, 15 were fired by the organization). In the study's first stage, 16 outsourced instructors, who worked between 2011 and 2016 were interviewed. The objective of the interviews with the outsourced instructors was to understand the reasons why part of them decided to continue working with the organization and others decided to leave after one year of collaboration. We divided the 16 subjects into two groups: 6 outsourced instructors kept their positive interaction with the organization after working for one year, out of 18 (Group A – positive interaction). The 10 outsourced instructors who left the organization after one year formed the second group out of 37 (Group B – negative interaction). We asked each group what their reasons for staying or leaving were. Group A gave 12 reasons for staying and group B mentioned 11 reasons for leaving.

Taking into consideration the findings of this initial stage, a second stage followed: the questionnaires (Likert scale 1-strongly disagree, 2-disagree, 3-netural, 4-agree, 5-strongly agree) were handed out to each group (Group A- 18 subjects, Group B- 29 out of 37 answered). The organization's CEO was interviewed in order to better understand the reasons why instructors might choose to cease the collaboration after one year.

### **Case study**

The organization was founded in 2010 as an NGO. Its field of activity is training young people and staff in the fields of education, security and higher education. During the years 2012-2016 the organization growth rate was 15% on average each year, in terms of revenues and beneficiaries. In 2016 the organization provided services to 7,000 beneficiaries spreading over 83 local authorities in Israel. Its business model is recruiting outsourced instructors who teach the organization's courses to the customers. The outsource instructors are selected according to criteria like age, gender, training experience, academic degree and field of activity. Those who are found suitable are offered a 5 days course by the organization. After the course each instructor must teach one 20 academic hours' workshop (maximum 10 weeks), as part of his training period (without being paid). The organization finds customers and charges them fees. The instructors are freelancers who are subcontracted by the organization according to the needs of each customer. The organization employs the outsourced instructors according to the customers demand.

Despite customers' demand for courses, 67% of the instructors (37 out of 55) stopped working with the organization after one year.

**Results of the study**

Table no. 1 presents the 12 reasons for a positive connection with the organization. Data was collected from 6 interviews with outsourced instructors. The presentation of the reasons was done at random, not according to importance.

**Table no. 1: Group A - reasons for a positive connection**

Group A	Reasons
1	An additional way to receive income
2	Break isolation
3	Less dealing with financing
4	The organization provides me with peer learning
5	Assistance in reaching new customers
6	The organization provides me with training experience
7	Working with the organization leads to my contribution to the community
8	Positive personal connection to the CEO
9	The organization provides me with professional knowledge
10	Positive personal connection with professional managers from the organization
11	Self-accomplishment
12	Connection to the organization's vision

*Source: authors*

The reasons presented in the questionnaires for a positive connection with the organization in their order of importance for group A (n.18) are presented in Fig. no.1: 100% of the outsourced instructors strongly agree with the most important purpose of organizations like an NGO, which is working for the community. In addition, 83% strongly agree with the reason of connection to the organization's vision. 89% strongly agree with the reason of peer learning. If we add up the 2 strongest degrees of agreement ("agree" and "strongly agree"), other reasons that are important such as: positive personal connection to the CEO (72%), positive personal connection with professional managers from the organization, the organization provides me with professional knowledge (67%), break isolation (61%) can be noted.



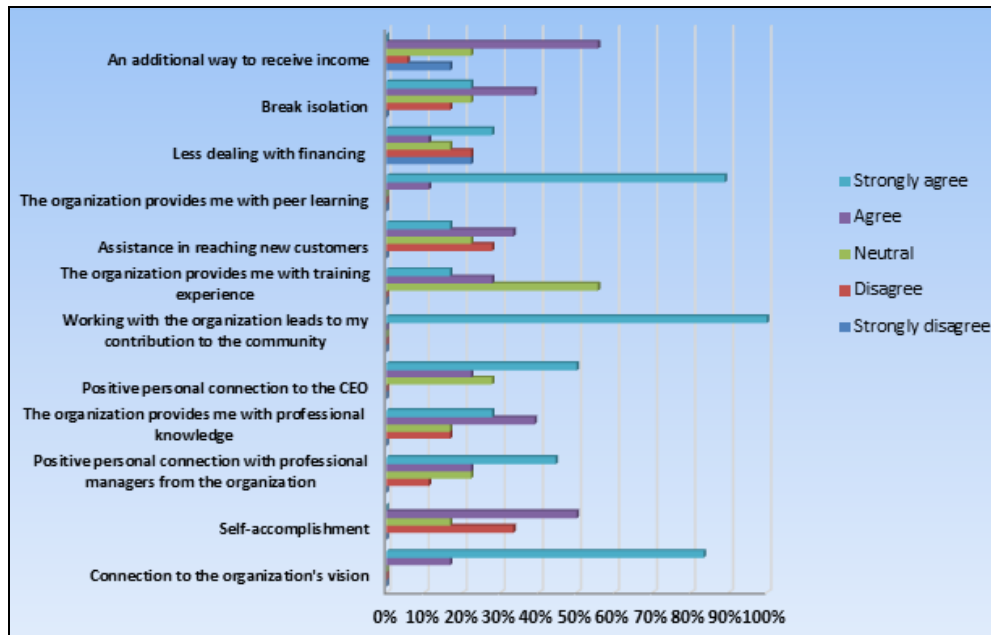


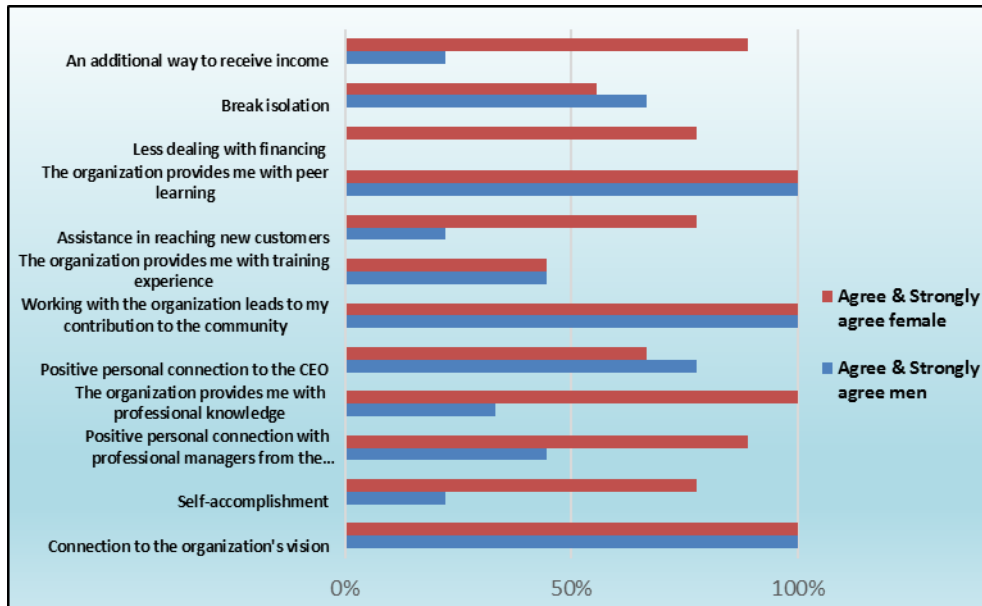
Figure no. 1: Group A -reasons for a positive connection with the organization

Source: authors

For a deeper understanding of the comparison of the reasons for the positive or negative connection, the gender parameter, which is considered as most important by the organization, was chosen. These are the additional results shown as the strongest (*the highest percentage combined answers of "agree" + "strongly agree"*).

### Gender

Fig no. 2 presents the importance of the reasons for having a positive connection with the organization according to what the male or female subjects answered. The results show that women consider as more important: less dealing with financing (78%F- 0%M), the organization providing them with professional knowledge (100%F-33%M), positive personal connection with professional managers from the organization (89%F- 44%M), self-accomplishment and assistance in reaching new customers (78%F- 22%M), and an additional way to receive income (89%F- 22%M).



**Figure no. 2: Reasons for a positive connection with the organization according to gender**

Source: authors

Out of the 10 interviews with instructors who had a negative connection with the organization, those were their 11 reasons. The presentation of the reasons was not done according to the degree of importance.

**Table no.2: Group B, reasons for a negative connection**

Group B	Reasons
1	I chose to work full time job somewhere else and did not have time to work with the organization
2	I chose to make time for full time studying
3	I chose to make time for my family
4	I ceased trusting the professional staff of the organization
5	I felt I could have developed better by myself
6	I had a negative experience in the field
7	I was not remunerated enough per course
8	I chose to enlarge my knowledge in a new field
9	I ceased trusting the CEO
10	I was not trained enough from a professional point of view
11	My total income was lower than I expected

Source: authors

The interview with the CEO revealed a different reason for the negative connection between the organization and the outsourced instructor after one year of collaboration. The reason is knowledge stealing. The CEO estimates that 10% of the outsourced instructors initially started working with the organization intending to learn a new method. Therefore, after being taught the method, they used it somewhere else without the organization's permission. Despite the fact that a contract with the outsourced instructors is signed, it is hard for the organization to follow up. A question about stealing knowledge could not be included in the questionnaires.

The strongest reasons for a negative connection with the organization in their order of importance for group B (n.29) according to the answers to the questionnaires, as presented in Fig. no.3, are: choosing to work full time job somewhere else and not having time to work with the organization (76%), not trusting the CEO anymore (62%), their total income being lower than expected (59%).

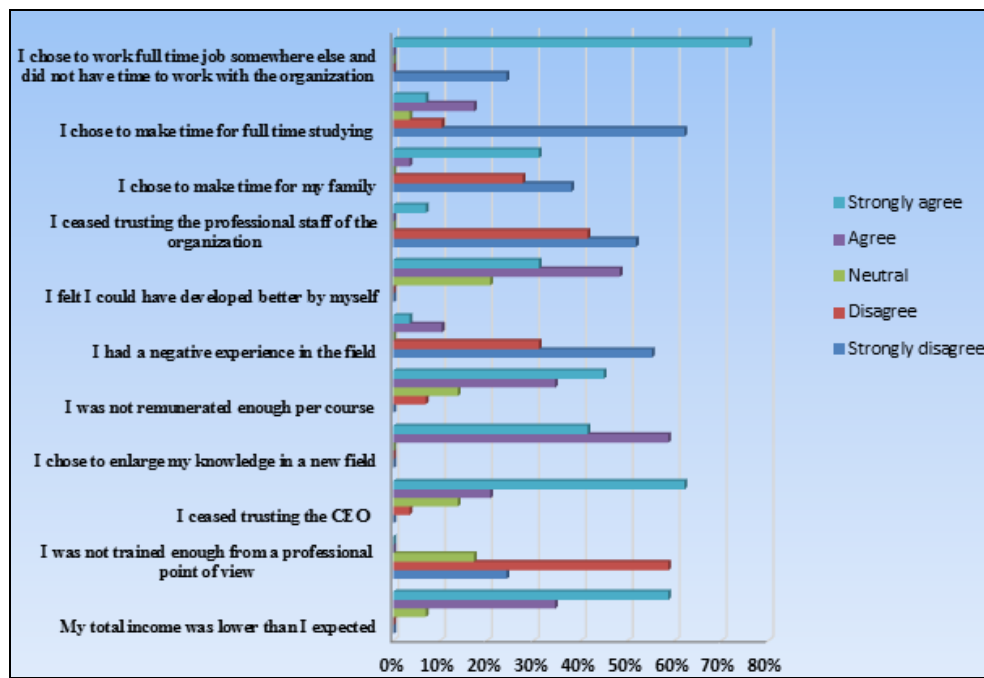
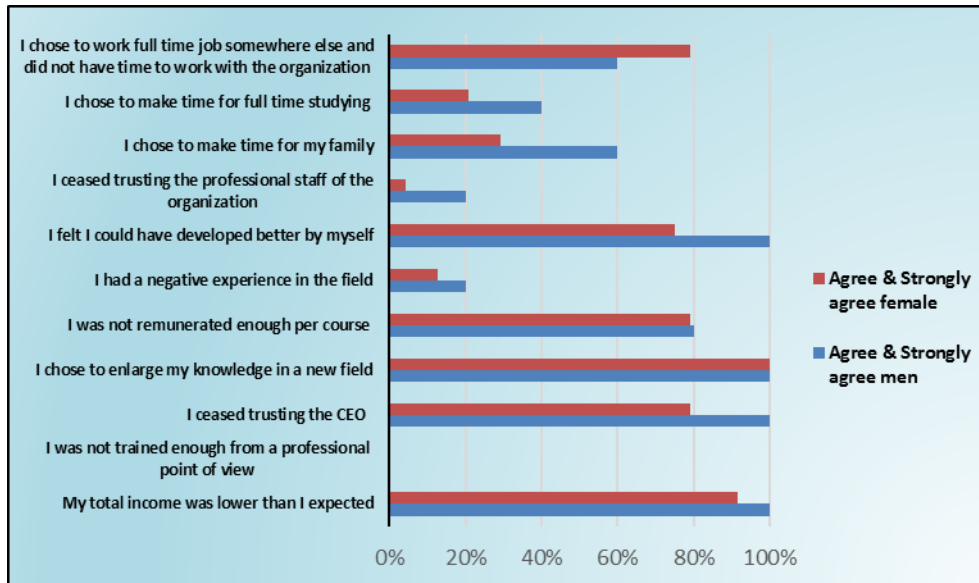


Figure no. 3: Group B -reasons for a negative connection with the organization  
 Source: authors

### Gender

Fig no. 4 presents the reasons for having a negative connection with the organization according to what the male or female subjects answered. The results show making time for their family (60%M- 29%F), feeling they could have developed better by themselves (100%M- 75%F), and ceasing to trust the CEO (100%M- 79%F).



**Figure no. 4: Reasons for a negative connection with the organization according to gender**

Source: authors

### Conclusions

Organizations that want to maintain a long and positive connection with the outsourced self-employed instructors should take into consideration the fact that the instructor should feel a strong connection with the organization's purpose and vision (contribution to the community is the main purpose of the NGOs) and consider peer learning as most important. Having a positive connection with the staff, getting professional knowledge and breaking insolation are important as well. In order to avoid creating a negative connection, the organization should do its best to understand what the outsourced instructors' intentions are and, accordingly, to try to adjust to their expectations about personal development and financial remuneration. This might prevent their leaving in order to work somewhere else. In this organization, the connection with the CEO was significant. Outsourced instructors who had a good connection with the CEO, mentioned it as a reason for staying, and those who left said that one of their reasons for doing so was they had ceased to trust her. Organizations should be aware of the fact that gender is one of the factors to consider as part of the risk management of outsourcing. In this study women mentioned more reasons for a positive connection with the organization than men such as: acquiring professional knowledge, having a positive personal connection with professional managers an additional way to receive income, less dealing with financing and self-accomplishment. More study taking into consideration more variables should be carried out in the future.

### Limitations

The findings are the result of a study carried out on only one organization.

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## **EUROPEAN MAP OF LABOUR MARKET TRENDS RELATED TO PAYROLL - PRODUCTIVITY**

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### **Abstract**

For Romania, the European Union integration process, although accession took place ten years ago, is still a topical issue, with a strong impact on the labor market, both in terms of professional training, the payroll and workforce performance evaluation.

Workforce management, with direct impact on compensation of employees is an indicator of major importance in the country's economy. This article grant more attention to the workforce in Romania and the EU, in particular through the level of average productivity per employee, and the impact that it has on the wage.

Romania, by approximating the experiences gained from EU countries, tried and try to improve existing human resources in the labor market, winning a number of benefits: continue training dynamics, degree of specialization, rising level of labor productivity, wage in the process of harmonization with European requirements, labor mobility and performance evaluation. A relatively new target on the human resources market aims at creating a balance between organizational objectives and economic environment. It follows the implementation of European strategy with role in sizing social labor market, but also a system targeting the free movement of labor within the European Union, improve well-being and performative workplace and increase protection for employees.

**Keywords:** labor market, workforce, wage, productivity, HRM

**JEL Classification:** J21, J24, J31, J53

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### **Introduction**

Both before joining the European Union, and after accession, the labor market in Romania has seen profound changes on the workforce, and hence on companies employing labor. Essential to labor market, human resources are a key component in the process of integration into European structures as lifestyle and work style changes rapidly. Underlying these changes are the following factors: demographic aging, high levels of unemployment and low employment of labor, development of markets for labor segmented industries, development of new technologies and European economic integration.

In order to achieve the objectives of the Lisbon Strategy on more numerous jobs and better paid, it is necessary to develop a labor market more flexible and secure. Labor market, through its companies should aim hiring well-trained workforce, corresponding in terms of the chosen professional job, employees to be more productive and more easily adaptable to innovation and competition. However, the European labor market not easily adapts shocks suffered by the economy, which generates serious problems in the short term outsourcing and relocation. And the impact is long-term labor market is developing major discrepancies in income, but also the skill level of the workforce. (Hudson, 2006).

Although it's been over ten years of accession to the EU, this process still produced effects on the Romanian labor market, showed in individual steps to harmonize Romania with EU requirements in terms of market work force at wage levels and productivity per employee. Visible and invisible wealth of a society generates differences between the major regions of the world, exacerbating permanent intangible capital. (Lopez Ruiz Nevado, Alfaro Navarro, Badea, Grigorescu, Voinea, 2011).

### **State of the art**

Both in Romania and the European Union, the labor market is a constantly evolving market, the employee is the key point of any organization that wishes to be competitive on the market. Current trends of the labor market, of the employers, are psychological security and safety of employees at work. Organizations pay more attention to employees through ongoing training sessions for acquiring skills in as many related areas, sessions with a pivotal role in the psychological safety of the employee at work.

A large number of statistical studies shows inconsistencies between the needs of employers and professionally trained workforce, requirements of companies employing became a topic of general interest, a theme which aims to continuously improve the quality of education to the demands and dynamic economic environment.

Education is one of the most important factors in determining the occupational structure, this having a direct impact on the degree of success in the workplace (Shavit, Muller, Tame, 1998). Employers recruiting analyzes the degree of training of the workforce candidate, then those companies will invest in the training of new employees, to obtain a larger labor productivity per employee. (Ashenfelter, Layard, 1986).

In Romania, by the new Labor Code, the labor market followed flexible relations between organization-workforce (Labour Law no.53/2003). Although the changes aimed at increased ensuring protection of labor rights at the expense of employers, was not taken into consideration and implementation of clear and regulated measures of social protection of labor employed.

Although before the crisis it is considered feasible and poverty reducing disparities between EU countries, the future does not look so good. To achieve steady and sustainable growth, growth which allows economic and social progress, it is necessary to have a strong, solid and competitive to offer significant benefits to the labor market by creating quality new jobs. (Jordan, Grigorescu, Chilian, 2012).

Although institutional dialogue in Romania is developed, it requires a strengthening of relations of trust between the social partners, which would lead to negotiations on a decentralized labor market. Employers, social partners, agencies of brokering the labor market and public administrations responsible for employment should cooperate to facilitate the transfer, the employee transition from one job to another, but also to minimize the risks of unemployment. In this case, an addition would be simplifying, shortening and

reducing costs in the process of preservation. Thus, once these benefits change would strengthen the relations of trust between social partners.

Human motivation reflected in wage levels is a decisive factor in the selection of jobs, being influenced by a number of external factors such as education that allows access to the technologies, the human potential of a country can be a key element in the positive trend of economic development. (Grigorescu, 2011).

Romania, tried, through a series of changes to the Labor Code updated with Law no. 53/2003 (2015) to harmonize with European labor market, offering a range of benefits engaged workforce. Some of the new features appeared on the labor market are: resizing the trial and increase the notice period, removing bans on hiring and firing staff, an amendment to the employment contract for a definite period, reducing the workweek and modification of the conditions for granting unpaid leave, and the introduction of annual evaluation criteria by performance indicators.

The main objective of this work is to identify systematic differences between the Romanian labor market versus EU28 and follow the steps to harmonize payroll process with European Union requirements.

### **Research methodology**

The level of culture of any European state is directly related to the development of the labor market. Organizations, key pawns in the labor market can support the workforce engaged with a series of personnel policies, rules to focus on developing and flexible employees. The new labor market trends, the level of remuneration on the European labor market is perfectly integrated in the new research directions of human resources and labor flexibility. Employee culture and level of specialization are directly proportional relationship to the wage level within the organization. (de Montmollin, 1995).

Equally important is the flexibility of the employer in relation to the employee, because a rigid management system may not be feasible in the long term. This problem lies both in the labor market in Romania and the states member of the European Union.

Because labor market outcomes are not always as expected, Journal of Organizational Psychology (Zlate, 2001) speaks of three projects in the role of labor reform, aiming flexibility and efficiency of labor: the model focused on customer oriented services, the model based on organizational development or consulting and strategic human resource management model. If the first model focuses on how the human resources department fulfills its tasks, putting the master plan employees and management of the organization as clients, the second model emphasizes making the personnel department, as internal consultant of the organization. The trill of model management, strategic human resource management model analyze the human resources department in the organization of power and its role in organizational policies. Department staff members must be the point of connection between the organization and human resource policies.

Statistical analysis of this article uses statistics from Eurostat and the National Institute of Statistics. Sociodemographic variables used are rated type: sex, level of study, level of training and wage levels, referring to the twenty-eight member states of the EU.

### **Workforce – evolutionary trends**

Although it is a relatively new concept, psychological safety of the employee within the organization began to be a primary concern of leaders of foreign companies, mostly (at national companies' share is only 12% compared to 73% in the EU28). Through



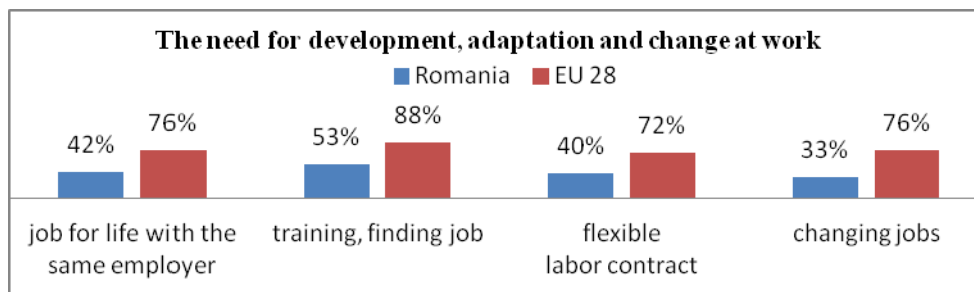
psychological safety wants creation of employees willing to experiment and innovate, to learn new skills in related areas of activity, to be able to express directly their views, to communicate by feedback. An example of this is the statement of Ascendis General Director, who sees such direct relationship between productivity and safety psychological "learn bosses to create this environment, to have the concern that people feel safe because safety generates productivity." (Gosu, 2016).

A new professional development program is "microlearning" that means online training sessions within 10 minutes for 20 days in which employee apply theoretical concepts learned in class. The notion of microlearning is described by Andreas Kambach - managing director of training and personal development at the company Triple A, Germany - a training program that teaches employees learn through practice. "No matter whether learning refers to the process of building and organizing knowledge to change behavior, attitudes, values, mental skills, the cognitive structures, reactions emotional patterns of action or dimensions of society in all cases we are able to consider micro, meso and macro aspects of different views on more or less persisting changes and sustainable changes in performance". (Hug, 2005).

**Comparative analysis report wages – productivity**

The relationship wages – productivity is essential on labor market. This has a direct impact on the workforce level of qualification, EU states being forced to constantly progress to an economy based on knowledge and success, which propagate the benefits of development in society. In this process of change should be pursued, the development of disadvantaged people, in order to be able to overcome their condition and determine increasing mobility.

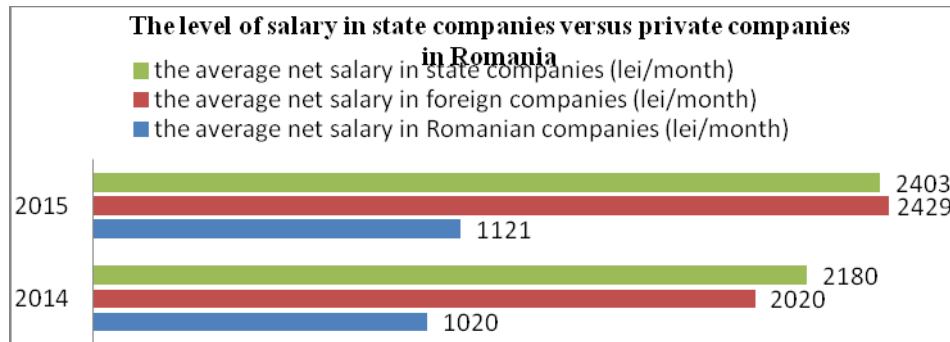
EU citizens against Romania accept a much higher percentage the need for development, adaptation and change in the workplace. 53% of Romanians versus 88% of EU citizens believe that training increases your chances of finding a job, 42% of Romanians versus 76% of Europeans agree that there are no jobs for life with the same employer, 33% of Romanians versus 76% of Europeans agree with easy change of jobs and 72% of Europeans compared to almost 40% of Romanians believe that employment contracts should become more flexible to encourage the creation of new jobs.



Source: authors' conception based on data from [www.insse.ro/cms](http://www.insse.ro/cms) and [www.ec.europa.eu/eurostat](http://www.ec.europa.eu/eurostat)

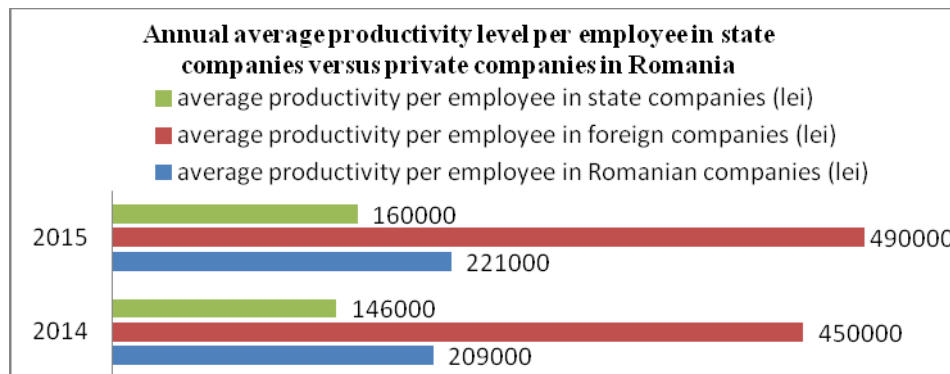
In Romania a major wage-productivity gap it signals in private companies towards state companies. If EU relationship between pay and competitiveness is similar in private companies and public companies, in Romania salaries are double the state to private companies, while productivity in the private sector is 25% higher than the state.

According to the National Statistics Institute and the National Office of Trade in state companies the average net wage was 2400 lei in 2015 compared to 1604 lei in private. Although it was noted an increase in salaries compared to 2014 owned Romanian companies registered in 2015 a wage of 1121 lei, representing only 47% of the average wage earned by employees in the public. The highest wage increases compared with 2014 were recorded in the private sector, foreign companies reporting an increase of 20% from companies with capital majority Romanian which had an increase of 8% and compared to state companies where growth has it was 10%. An argument in this regard could be professional development programs and the need to adapt and change in the labor market.



Source: authors' conception based on data from [www.insse.ro/cms](http://www.insse.ro/cms)

Although the level of wage increase planned by companies for 2016 was 3.9%, Romania recorded in the private an average wage increase of 3.7%, much lower than in 2008, when there were wage increases of 13.5%.



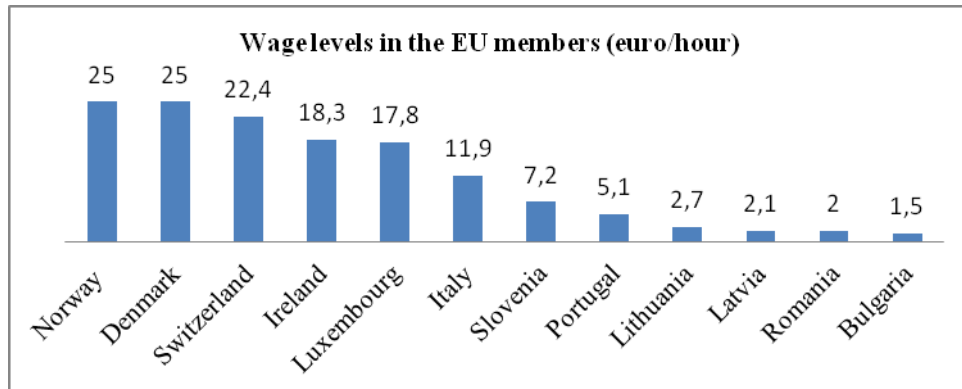
Source: authors' conception based on data from [www.insse.ro/cms](http://www.insse.ro/cms)

In terms of productivity, private companies, with an average productivity per employee of 220000 lei are almost 38% more productive compared to state companies, where average productivity per employee in 2015 was 160000 lei. Private companies are over three times more productive compared to the state companies – private companies with foreign capital recorded an average productivity per employee of 490000 lei. Although, to analysis of the previous year 2014, productivity growth was 10% both in the state and the private, state

companies remain the least productive branch of the economy. It should be mentioned that private companies with Romanian majority capital are twice less productive compared to foreign companies.

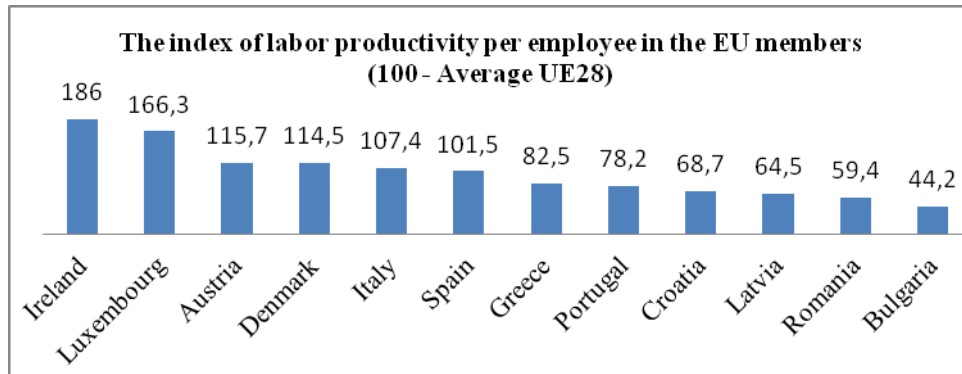
Although the whole economy, productivity per employee increased by 10% compared to 2014, recording a value of 300000 lei, the paradox of state firms remains, given that productivity ratio between private companies and state firms is 3-1, salaries are similar.

On the European map of the labor market, a key element of motivational system it is paid, an essential component in the search of a job. Thus, in the EU28, the average gross wage is 11,9euro/hour.



Source: authors' conception based on data from [www.ec.europa.eu/eurostat](http://www.ec.europa.eu/eurostat)

Top of the leaderboard at the wage level is occupied by the Nordic Countries, Norway and Denmark, with an average gross wage of 25euro/hour. Bottom of the table is occupied by Romania and Bulgaria with an average gross wage of less than 10% of average gross wage first ranked. Romania occupies the penultimate position with a gross average wage is 2euro/hour, last ranked, with an average gross wage of 1,5euro/hour being Bulgaria.



Source: authors' conception based on data from [www.ec.europa.eu/eurostat](http://www.ec.europa.eu/eurostat)

In the EU, Romania has noted in the past decade with the largest increase in labor productivity, registering an evolution of 174% in 2015 compared to 2010, with an index of

59.4 labor productivity from 100- media EU28. However, Romania deals again the penultimate position, the last EU country being Bulgaria with 44.2 (EU average - 100).

European Union top spot is occupied by Ireland, with an index of labor productivity per employee 186, followed by Luxembourg with 166.3 of the EU average 100.

In Romania, although labor productivity per employee increased, in terms of wage has not progressed to the same degree. Currently, a Romanian employee earn an average five times less than the EU-28, with a net wage of 450 euro/month. But are much larger discrepancies between the top spot, which earns approximatively ten times better than last finishers.

### **Conclusions**

The transition period generated by the accession and integration of Romania into the European Union took a major impact on the Romanian labor market, and also on the wage-productivity ratio, report that in recent years had a small evolution. Noteworthy is that employers begin to analyze increasingly more productivity indicators on the labor market. Scarcity of manpower trained, professional development, demographic decline and fewer employees are "forced" active manpower to record labor productivity higher because private companies or state were forced to produce more, or even the same as before, with fewer employees. Although we are far from the acceptance of change at EU28 level, we believe that mobility of employees between companies would lead to a noticeable increase benefits, both in the workforce and at company level. Thus, employees would be motivated to wage level to take risks transfer from one job to another, and the chances of finding new jobs would register real growth.

In whole, globalization brings pluses on the labor market, the beneficial growth, development and employment, as long as employers and employees respond quickly imposed changes. The low level of labor productivity in Romania could be justified by the low level of training activities, and the limited experience in the use of more efficient tools. We think that with the development of digitalization, the labor market will benefit by increasing employee productivity.

Sustainable economic growth and sustained labor productivity growth is a viable solution for Romania's development by increasing wages and thus living standards. The measure reducing social insurance contributions is an example of this, state tax authorities can develop a moderate level of taxation, which would generate net wage growth. Effort should be made in the field of training by investing in qualification and retraining of the workforce, but also support programs to develop their own business.

Wage levels in Romania is directly related to the country's economic performance. The vast majority of countries with high wage and labor productivity have a competitive economy with well-qualified workforce, but also labor demand increasing. For sustainable development in the labor market in Romania must be a competitive business environment, a fiscal policy stable and relaxed, result oriented, which long term will generate competitiveness in the labor market, implicitly wage increases and development professional. Although Romania and some Member States of the European Union leaves the socio-economic realities quite different, our country is trying, through a series of policies and regulations of the Labor Code to approach the EU28, at least on the mobility of the workforce, recognizing that the wage level and productivity are still very far from European Community average.

In conclusion, any change that generates an additional labor market and support the economic recovery it is beneficial in the current politico-economic context. The changes

that aim to be implemented on the Romanian labor market must focus on job security and employer-employee relations relaxation. But attention to the implementation, because a high degree of freedom at the employer be synonymous with economic recovery, but may be a step in the development of abuses against employees.

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## **CLASSIFICATION AND OVERVIEW OF COMMON MANAGEMENT PRACTICES FOR THE IMPLEMENTATION OF SUSTAINABILITY IN EUROPEAN ENTERPRISES**

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### **Abstract**

Enterprises which decide to implement sustainability following the triple-bottom-approach (environmental, social, economical) face an almost infinite number of practices and tools that are more or less appropriate for managing this challenge. Using suitable management practices on the various management levels can speed up and smoothen this change process.

The objective of this paper is to develop an overview and classification which should enable managers to easily find and pick useful general management practices for the implementation of sustainability. Therefore, an intensive literature research was conducted to find out which management practices for implementing sustainability are commonly used and to analyze the current state of classifications in the given field.

Based on the findings suitable classification tables have been developed.

In the first dimension of the classification tables the management practices are sorted into the three management levels “normative, strategic, and operative”. In the second dimension, the management practices are sorted according to the five management functions “planning, organizing, staffing, directing, and controlling”.

The result is a guiding tool for managers of various levels enabling them to quickly find suitable management practices for the implementation of sustainability on a certain management level and for a specific function.

Further validation of the result with regard to its feasibility in practice is recommended.

**Keywords:** management practices, sustainability, normative management, strategic management, operative management, management functions, corporate social responsibility

**JEL Classification:** M14, Q50, Q51, Q52, L10, L11, L15, L20, L21, L22

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## **Introduction**

To run smoothly, enterprises need a management which is suitable to their individual situation, business area, and goals. If not, it is quite unlikely that the organization is successful (Eze, 2012). Therefore, even if a company currently runs smooth, if any incisive changes of its business environment, business area, or goals occur, it is important to review and if necessary adapt the way it is managed.

Handling change situations is a managerial task. And the more change an organization is facing, the more management it needs (Grannemann and Seele, 2016). Management practices are methods, procedures, processes, or rules used in enterprises to fulfill management tasks, shape changes and to reach managerial goals. Depending on the integration depth and the initial situation (including the business environment), the decision to focus on sustainability leads to the need for incisive changes in the enterprise (Gessner and Koelle, 2016). Using suitable management practices on the various management levels can speed up and smoothen this change process. Therefore, the aim of the work presented in this paper was to conduct a research on common management practices which are helpful for the implementation of sustainability in enterprises and to develop an overview of the findings. Further, a classification was developed, to facilitate the use of this overview. This classification is based on the three management levels “normative, strategic, and operative” (Dillerup and Stoi, 2016) as well as on the five typical management functions “planning, organizing, staffing, directing, and controlling” (Koontz and O’Donnell, 1959).

### **1. Review of the scientific literature - Sustainability in business management**

In 1972 the first conference of the United Nations concerning environmental issues took place. It is widely considered to represent the beginning of a global sustainable economic policy. One substantial result of this conference was that global environmental problems could not be solved without considering social and economic issues (United Nations, 1972). In 1983 the World Commission on Environment and Development (WCED), also known as Brundtland Commission was convened to elaborate recommendations for future action. The final report “Our Common Future” (World Commission on Environment and Development, 1987) implies three fundamental principles: The global perspective, the linkage between environment and development, as well as the realization of justice. Thereby the Brundtland Commission substantially influenced and shaped the understanding of the concept of sustainable development.

In 1992 the United Nations Conference on Environment and Development (UNCED), so-called Earth Summit in Rio de Janeiro devised amongst others the „Agenda 21” – a development and environmental policy plan of action, comprising objectives, measures, and instruments for the implementation of sustainable development in the 21<sup>st</sup> century. The „Agenda 21” treats four perspectives: Social and economic dimensions, preservation of resources, strengthening the role of major groups (e.g. equal treatment for women) and means of implementation, such as the role of science and education (The United Nations Conference on Environment and Development, 1992).

The Earth Summit led to various follow-up conferences up to the latest „United Nations Sustainable Development Summit 2015” in New York. The „Agenda 2030”, adopted in New York by all member countries of the United Nations, describes objectives in the fields of people, planets, prosperity, peace and partnership until the year 2030. These objectives



apply to all countries in the world – industrialized, emerging as well as developing countries (United Nations, 2015).

The decision for this sustainable development process and the measures to reach the above-mentioned objectives has a substantial impact on the strategies and policies of the nations. The results are also expected to radiate into companies. As one example the European Energy Efficiency Directive (2012/27/EU) had to be transferred into national law. In Austria, for example, the respective law is the energy efficiency law (Bundes-Energieeffizienzgesetz - EEffG), and in Germany, the relevant law is the law for energy services and other energy efficiency improvement measures (Gesetz ueber Energiedienstleistungen und andere Energieeffizienzmassnahmen - EDL-G). Amongst others, these laws force companies, which are not a small or medium-sized enterprise, to perform an energy audit every four years or to implement an energy management system.

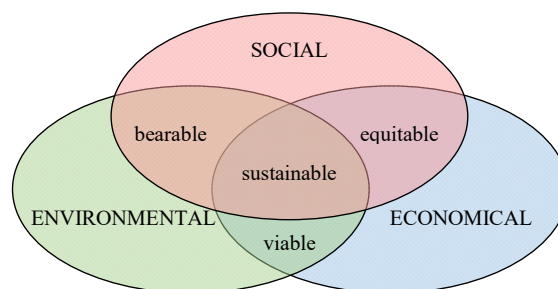
As another example, the German Sustainability Code plays an important role by formulating principles of „good corporate management”. Sustainable corporate management thus requires economic performance and social responsibility in line with the regenerative ability of the earth (Rat fuer Nachhaltige Entwicklung, 2016).

In business management, sustainable corporate management is known as „Corporate Social Responsibility” (CSR), representing a company’s voluntary contribution towards sustainable development exceeding legal compliance requirements (Pufé, 2014). Elkington (1997) therefore created the expression „Triple-Bottom-Line”, outlining that corporations should not just focus „on the economic value that they add, but also on the environmental and social value that they add – or destroy” (Elkington, 2013, p.3).

According to the dimensions’ weighting, it can be differentiated between one-dimensional and multi-dimensional models.

The one-dimensional model emphasizes one – usually the ecological – dimension. Though economic and social factors are included, they are not considered to be of equal rank.

On the other hand, the dimensions are all equally ranked in multi-dimensional models (Michelsen and Adomssent, 2014).



**Figure no. 1: Confluence of the economy, society, and the environment**

*Source: Srebotnjak, 2011*

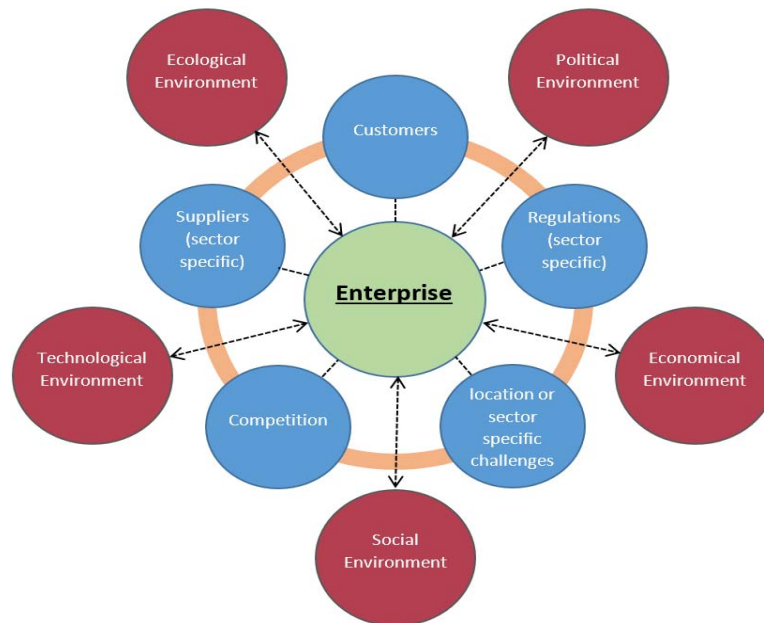
## 2. Research Methodology

For every of the three dimensions, there is almost an infinite number of practices and tools available that are appropriate for managing business challenges. Therefore, this paper concentrates on widely used business practices which have their focus on general management questions and may be used for implementing sustainability approaches.

On the basis of an intensive literature and internet research, commonly used management practices were identified and the current state of classification in the given field was figured out. The result allows a rough qualitative assessment about commonly used management practices for implementing sustainability. Based on the findings, suitable classification tables were developed.

**3. Results**

**The normative management** describes the fundamental goals of the company and defines the vision, values, and standards under which the goals should be achieved. Therefore, the normative management characterizes the company’s culture in many areas (Doll, 2016). To be successful in the long term and in preparation to define the supporting visions, standards, and values, the normative level of the company must be aware of its entire business environment.



**Figure no. 2: External environment of an enterprise: General (red) and operating (blue)**

*Source: authors contribution based on data from Dillerup and Stoi, 2016*

Understanding the respective requirements helps to anticipate upcoming changes, thus enabling the organization to react quickly and appropriately. A distinction is made between the general environment which affects all enterprises, and the environment which concerns only the operating business sector.

The general environmental analysis, which is an important basis for setting up the right goals, is part of the normative management (Dillerup and Stoi, 2016, pp. 102 ff). It helps to clarify which factors influence the business on a general level and understand which meaning the factors have for the company. From the point of view of the normative sustainability management, the environmental analysis can also help to clarify which

factors are influenced by the company and to identify the respective stakeholders. The findings are a valuable basis to develop the necessary mission, values, and standards to fulfill the requirements which derive from the entrepreneurial responsibilities. Legitimate entrepreneurship requires the consensus of all those who are actually or potentially, positively or negatively, affected by the consequences of entrepreneurial activity (Bieker, 2005, pp. 20 ff). Both, the external and the internal environmental analyses (which provides an assessment of the businesses internal resources) build the foundation for strategic management. The analyses provide the means to identify strengths to build on, chances to seek, weaknesses to overcome and risks to avoid. Altogether, this is fundamental information for the formulation of strategies (Gavinelli, 2016, pp. 22 f).

**Strategic management** is quite a young discipline: In 1976 Ansoff, Declerck and Hayes released their book "From Strategic Planning to Strategic Management". The term "Strategic Management" goes back to this time (Bea and Haas, 2016, p. 7). Strategic Management has the purpose to figure out the performance potential of the business and to develop recommendations for an appropriate course of action to unlock its potential for success. Its focus lies on developing existing competitive advantages and discovering new business fields in line with the company's potentials and the requirements of the normative management (Dillerup and Stoi, 2016, pp. 42 f). Strategic sustainability management enhances the classic strategic management theory with the facets of sustainability. It can be described as strategic management with the purpose of addressing the needs of the three dimensions environmental, social and economical (Blunk, 2015).

The **operative management** is responsible for planning, steering and controlling the daily activities of the business (Dillerup and Stoi, 2016, p. 44). Its goal is to use the success potentials of the business and the given resources as efficient as possible (Amann and Petzold, 2014, p. 131). Here, sustainable management focuses on the realization and implementation of the input and guidelines on sustainability developed by the normative and strategic sustainability management. Therefore, the operative management develops and integrates sustainability processes and measures.

The managerial levels can further be subcategorized according to the typical management functions "planning, organizing, staffing, directing, and controlling" as described by Koontz and O'Donnell (1959).

The following tables summarize the management practices which were identified in our research and, according to the explanations from chapter "3. Research Methodology", can be considered as common. The management practices have been categorized according to the appropriate management level and subcategorized according to the respective management function.

**Table no. 1: Sustainable management practices and managerial functions on the normative level**

Normative Level	
<b>Planning</b>	<ul style="list-style-type: none"> <li>▪ Analyze the findings of the environmental analysis with a focus on sustainability.</li> <li>▪ Define the organization's vision, norms, and goals regarding sustainability and align them with the business goals</li> </ul>
<b>Organizing</b>	<ul style="list-style-type: none"> <li>▪ Define the organization's rules, standards, policy and values regarding sustainability.</li> <li>▪ Allocate a budget necessary for implementing and operating the sustainable management structure, management system, resources, and measures</li> </ul>
<b>Staffing</b>	<ul style="list-style-type: none"> <li>▪ Provide guidelines for the recruitment and allocation of human resources for management and realization of measures in the field of sustainability.</li> <li>▪ Provide guidelines for education in the field of sustainability.</li> <li>▪ Provide guidelines for incentive systems in the field of sustainability.</li> <li>▪ Provide guidelines for employee participation</li> </ul>
<b>Directing</b>	<ul style="list-style-type: none"> <li>▪ Lead by example</li> <li>▪ Give feedback and support</li> <li>▪ Decide organization (For example staff function, line function, or integration in existing functions)</li> <li>▪ Set guidelines for the communication of achievements in the field of sustainability internally and externally</li> <li>▪ Set guidelines for the implementation of a managerial system for sustainability</li> <li>▪ Decide on the extent of the managerial systems for sustainability: Energy, Environmental, or CSR?</li> <li>▪ Decide, based on proposals of the Strategic Level, about a suitable integration of sustainable management</li> </ul>
<b>Controlling</b>	<ul style="list-style-type: none"> <li>▪ Conduct regular management reviews about the implementation of sustainability measures and the progress of the business in the field of sustainability periodically.</li> </ul>

Source: authors contribution

**Table no. 2: Sustainable management practices and managerial functions on the strategic level**

Strategic Level	
<b>Planning</b>	<ul style="list-style-type: none"> <li>▪ Analyze the general and operating environment of the organization, its abilities and needs to comply with its own and the stakeholders' requirements in the field of sustainability.</li> <li>▪ Analyze the organization's structure regarding its ability to fulfill the requirements in the field of sustainability</li> </ul>
<b>Organizing</b>	<ul style="list-style-type: none"> <li>▪ Develop a strategy which fulfills the requirements of sustainability (triple bottom line) in line with the guidelines of the normative level;</li> <li>▪ Develop a managerial structure which fulfills the sustainability requirements;</li> <li>▪ Develop a strategy and guidelines for fulfilling the demands of stakeholders, and involving them where necessary (i.e. Purchasing only products which were produced following sustainability guidelines);</li> <li>▪ Develop a set of strategic measures which help to fulfill the sustainability requirements;</li> <li>▪ Based on the preceding: Develop decision proposals for the normative level about a suitable integration of sustainable management in the organization (i.e. staff function, line function, or integration in existing functions).</li> <li>▪ Develop a budget process to allocate budgets to the implementation and operation of the sustainable management structure, management system, and measures.</li> <li>▪ Develop controlling procedures, measures, and tools based on the findings to ensure that the implementation of structures and measures follows the plans.</li> </ul>
<b>Staffing</b>	<ul style="list-style-type: none"> <li>▪ Develop strategies and guidelines for:</li> <li>▪ Hire the right people: procedure and frame (for soft and hard skills)</li> <li>▪ Further education in sustainability.</li> <li>▪ Incentives to encourage staff to work on improvement of the sustainability: monetary and non-monetary (strategic dimension).</li> <li>▪ Employee participation.</li> </ul>
<b>Directing</b>	<ul style="list-style-type: none"> <li>▪ Set targets.</li> <li>▪ Lead by example.</li> <li>▪ Give feedback and support.</li> <li>▪ Take into consideration the guidelines of the normative level: Decide on a suitable budget process to allocate budgets to the implementation and operation of the sustainable management structure, management system, and measures.</li> </ul>
<b>Controlling</b>	<ul style="list-style-type: none"> <li>▪ Develop suitable controlling procedures, measures, and tools based on the findings to ensure that the use of the budgets follows the plans.</li> <li>▪ Plan the defined controlling procedures, measures, key performance indicators and tools on the strategic level to make sure that the implementation of structures and measures follow the plans.</li> <li>▪ Plan the implementation and use of the defined controlling procedures, measures, key performance indicators and tools on the operative level.</li> <li>▪ Plan the defined controlling procedures, measures and tools on the strategic level to make sure that the use of the budgets follows the plans.</li> <li>▪ Plan the periodic management review of the normative level and participate in it.</li> <li>▪ Communicate the goals and achievements in the field of sustainability internally and externally according to guidelines.</li> </ul>

**Table no. 3: Sustainable management practices and managerial functions on the operative level**

Operative Level	
Planning	<ul style="list-style-type: none"> <li>▪ Analyze the current situation:</li> <li>▪ Compliance with external regulations and internal guidelines.</li> <li>▪ Current sustainability status: Use of resources (energy, water, etc.), use of human resources, emissions, material, and waste mgmt., etc.</li> <li>▪ Analyze the necessity and the priority of specific sustainability measures.</li> <li>▪ Plan the implementation of specific sustainability measures (technical, organizational, etc.) considering the budget guidelines.</li> </ul>
Organizing	<ul style="list-style-type: none"> <li>▪ Develop and implement structures and processes which enable the organization to handle the requirements of sustainability.</li> <li>▪ Implement and work with budget process to allocate budgets to the implementation and operation of the sustainable management structure, management system, and measures.</li> </ul>
Staffing	<ul style="list-style-type: none"> <li>▪ Prepare job descriptions based on the organizational needs and the guidelines from the normative and strategic level for staff responsible for sustainability tasks.</li> <li>▪ Choose/hire staff which is in line with the guidelines and the job description.</li> <li>▪ Develop a plan for and conduct further education in sustainability.</li> <li>▪ Develop an implementation scheme and implement monetary and non-monetary incentives (operative dimension).</li> <li>▪ Conduct employee participation (Surveys, employee suggestion system, etc.).</li> </ul>
Directing	<ul style="list-style-type: none"> <li>▪ Set targets.</li> <li>▪ Lead by example.</li> <li>▪ Give feedback and support</li> </ul>
Controlling	<ul style="list-style-type: none"> <li>▪ Implement the defined controlling procedures, measures, key performance indicators and tools to make sure that the implementation of structures and measures and the use of the budgets follows the plan.</li> <li>▪ Control the implementation and use of the defined controlling procedures, measures, and tools on the operative level.</li> <li>▪ Use the defined controlling procedures, measures and tools on the strategic level to ensure that the use of the budgets follows the plans.</li> <li>▪ Measure key performance indicators concerning sustainability.</li> <li>▪ Prepare the periodic management review of the normative level and participate in it.</li> <li>▪ Communication of goals and achievements in the field of sustainability internally and externally according to guidelines.</li> </ul>

### Conclusions

Although, “sustainability” traditionally refers to environmental questions, from a business perspective the multi-dimensional approach is a clear necessity. Depending on the individual competitive and economic situation the focus of the respective business might be temporarily shifting to one or the other dimension thus balancing changing management requirements. In an open market, if it shifts too far and neglects a certain dimension the effects of this behavior threatens the existence of the business. Therefore, it is important for a company’s management to pick tools and practices which help to balance and in a reasonable way fulfill the occasionally opposing requirements of the three dimensions social, environmental and economical.

The developed classification concept and overview of typical management practices which support the implementation of sustainability in European enterprises can be a helpful tool for managers of the various levels of an organization, who are planning to or are already in the process to implement sustainability measures. The classification tables help managers not only to find management practices which are useful on a certain management level, but also to choose suitable solutions regarding a particular management function.

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## ETHICAL TOURISM CONSUMPTION BEHAVIOR AMONG STUDENTS STUDYING TOURISM IN ROMANIA

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### Abstract

The purpose of this paper is to analyze the tourism consumption behavior of students which study tourism in Romania. Therefore, we aim to examine students' attitude toward ethical tourism consumption and their intention regarding future ethical tourism consumption, the factors that would make students pay a premium for an ethical tourism products and those that might hinder their ethical tourism consumption behaviour. The paper relies on the cross-sectional survey as a research method, which was based on short self-completed questionnaire with 12 clear categories designed to help us answer our research questions and target a few socio-demographic characteristics. The questionnaire is based on the following variables: students' perception regarding the importance of ethical consumption behaviour and their intention to buy tourism products which sustain ethical consumption, factors that block students from consuming ethical vacations and factors that make students pay a premium for a responsible vacation. Overall, this paper contributes to literature by revealing if Romanian students that study tourism will act responsibly, ethically when it comes to their patterns of tourism consumption.

**Keywords:** ethical tourism; tourism consumption behavior; students study tourism

**JEL Classification:** M14, P12, L83, C83

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### Introduction

Beside a lot of articles that are trying to define responsible tourism or ethical tourism (Weeden, 2005; Gao, Huang, & Zhang, 2016; Stanford, 2008;) and others that are trying to find differences between those two concepts (Lansing and De Vries, 2007) there are a lot of studies related to different part of supply and demand. In line with theoretical aspects, Mihalic (2014) attempts to expand and refine the understanding of the sustainable-responsible tourism discourse and suggests how to close the sustainable-responsible gap by using clear definition of each term, derived from theories on environmental damage and behavioural economics.

Much of the literature focuses on the practices of responsible tourism covers various aspects of supply. A series of articles are related to tour operators (Khairat & Maher, 2012;



Tepelus, 2005; Budeanu, 2005) and their businesses. Aspects related to accommodation and ethical tourism represent another field of research for Han et al. (2011) and Boemi et al. (2013). Other studies explore actor relations such as the tourist-host population, and questions individual versus social responsibility as well as the political assumptions and governance models behind the responsibility (Bramwell et al., 2008; Hall, 2012).

Another part of literature focusses on studying various aspects of demand. Tourist's, perspective has dual roles of consumers of and participants in responsible tourism (Caruana et al., 2014; Gao et al., 2016; Stanford, 2008). Other researches on responsible tourism concentrate on the tourists' perspective and trends (Caruana, Glozer, Crane, & McCabe, 2014; Ramachandran, 2009). Chiappa, Grappi, & Romani (2016) and Weedon (2011) concluded that an individual tourist does not embrace every responsible tourism practice equally or place the same priority on each type of responsible tourism representing economic, socio-cultural, and environmental aspects. For most tourists, responsible tourism remains a noble idea but not a sufficient motivation to alter tourism plans and activities (Dodds, Graci, & Holmes, 2010; Juvan & Dolnicar, 2014).

This paper intend to reveal the tourism consumption behavior of students which study tourism in Romania. By treating aspects like intentions of buying ethical tourist products, importance of different factors in choosing a destination and paying premium for ethical tourism authors intend to examine if students act responsibly, ethically when it comes to their patterns of tourism consumption.

### **Literature review**

Weedon and Boluk (2014) acknowledge the shortcomings in the critical frameworks for reviewing ethical consumption in tourism. They also state that ethics holds a central position both in theory and practice in other disciplines. It can be consider that the current place of ethics in the tourism studies order of things may be characterized as marginal at best. But even this type of consumption represent a small part of the tourism industry the number of consumers who identify themselves as 'responsible' is a growing segment, and this growth is the consequence of increasing awareness about social, environmental, and/or ethical issues (Schrader, 2007)

Tilikidou et al. (2014) study shown a rather moderate to high overall intention of customers to stay at a green hotel and positive attitudes towards green hotels. It was found that more ethical future lodging customers are better educated than their counterparts are. They also hold rather positive attitudes towards the idea of staying at green hotels in a survey conducted among the 500 households of the urban area of Thessaloniki, Greece.

Kawal (2012) was interested in identifying whether college students perceived themselves to be ethical buyers assuming they have fair amount of educational background and awareness about social responsibility, concerns about environment, animal welfare, willing to pay an extra price for healthy options and so on. 210 students, from "International Marketing" in Delhi University, India took part in the 15 questions survey which was conducted over a two month period. Main findings of the study are: majority of respondents „were always willing“ to pay the amount of premium up-to 5 percent (accounting for 85.7 percent (0.857) variance); while making purchases in last one year, they „always look to support local shops and suppliers (accounting for 80.4 percent (0.804) variance); payment of extra price up to 5 percent is highly correlated with explicitly stated premium paid on final price of ethical products; while making purchases in last one year, they „always look to support local shops and suppliers“ (accounting for 80.4 percent (0.804) variance). As

regarding the barriers to ethical buying, respondents strongly agree that „there are not enough environmental products in the market“ (0.920) followed by second factor i.e. „many people have little inclination to pay a premium“ (0.904) and third factor „environmentally preferable products may not meet consumer criteria of price, performance, quality and easy access“ (.826).

Joo (2013) conducted a similar study which examined the relationship between people's attitude toward fair trade in commodity markets and understanding about and interest in fair trade tourism. Results indicate that there tends to be an upward increase in participant's willingness to pay the premium as their years of experience as fair trade consumers increases. On average participants with the shortest experience were willing to pay a 4.8% premium, while groups with the greatest level of experience were willing to pay a premium of 8.7%. Student's t-tests revealed a considerable gap between groups with longer than 5 years of experience and less than 5 years of experience. Arguably, participants' willingness to pay for premium will increase significantly, once their experience with fair trade experience exceeds five years. When asked about the activities they want their premiums be spent, the respondents rendered the greatest supports for 'enhancing women's and children's rights in destinations' (4.49). What followed after are 'ensuring fair wages and working conditions' (4.38) and 'supporting local development projects' (4.26). On average, respondents considered economic (4.65) and social (4.50) sustainability more important but still maintained their support for cultural (4.29), and ecological (4.02) sustainability.

Han et al. (2011) found that female customers of older age, who have favorable attitudes towards ecofriendly behaviors and positive images of green hotels, were more willing to stay at a green hotel, to recommend it and to pay more for it.

On Romanian market, Petrovici (2014) conduct a study to analyze the applicative role of public relations in the tourist sector, respectively, to identify the perception of the Romanian public of responsible tourism. Main findings related to perception of responsible tourism show that 42% of the respondents have heard about responsible tourism which can be seen as good practices in the tourist sector (38%), the exploitation and promotion of local products and services (37%), as well as protecting natural resources (25%). According to that paper, responsible tourism should aim, first of all, at minimizing the negative impact and, implicitly, maximizing the positive impact upon the tourism destinations (40%), generating increased economic benefits for locals and the tourist development of the area (32%), building a good relation between tourists and hosts by providing quality services, (28%). Most of those interviewed consider that, at present, responsible tourism may represent the most efficient strategy for promoting tourism in Romania, which demands the reconfiguration of the tourist sector by the adoption of responsible practices in this respect.

### **Methodology**

Our paper research focus is on tourism consumption behavior of students which study business and tourism in Romania. We aim to examine if they act responsibly, ethically when it comes to their patterns of tourism consumption. Our argument is that those who study tourism should exhibit an ethical tourism consumption behavior based not only on their own values and beliefs, but also on the fact that they are exposed to an Ethics course during their studies.

Thus, our research questions are: What is the students' attitude toward ethical tourism consumption?; What is the students' intention regarding future ethical tourism

consumption?; What are the factors that would make students pay a premium for an ethical tourism product?; What might hinder the ethical tourism consumption of students?

Based on these research questions which intend to describe the attitude, intention and behavior of a large number of students, the best research method is the cross-sectional survey. This method involves „the collection of data at a single point in time from a sample drawn from a specified population” (Visser, Krosnick and Lavrakas, 2000, p. 225). This is the right approach under these circumstances because the cross-sectional survey allows to check the prevalence of certain behavioral characteristics in a population or to document the number of individuals who hold certain opinions or attitudes (Visser, Krosnick and Lavrakas, 2000). Surveys also permit to collect data on which to test some associations between the research variables.

The survey was based on a self-completed questionnaire to give students enough time to think about the right answers. Phellas, Bloch and Seale (2011) argue that such surveys are useful when the research topic is sensitive and respondents need time to ponder their answers. In order to be effective a self-completed questionnaire should be clear, simple and with easy to understand questions (Phellas, Bloch and Seale, 2011). Therefore, we formulated a short questionnaire with 12 clear categories designed to help us answer our research questions and target a few socio-demographic characteristics. These questions are based on the following variables: perception on the necessity of an ethical consumption behavior; factors that promote the consumption of ethical tourism products; intention to buy tourism products which sustain ethical consumption; factors that block students from consuming ethical vacations; factors that make students pay a premium for a responsible vacation.

At the beginning of 2017, the questionnaire was distributed online among the students of Business and Tourism Faculty within the Bucharest University of Economic Studies (ASE). A total of 147 questionnaires were filled-in. We consider this to be a representative sample based on the fact that we intended to study the attitudes and ethical tourism behavior of students who study tourism. In Romania only five other higher education institutions have programs specialized in tourism besides ASE. Therefore, we think that our sample of 147 is representative and can be used to draw conclusions on the population.

### **Results and discussions**

The survey findings provide salient insights for further development of the ethical/responsible tourism market. Preferences of students and factors influencing their willingness to pay suggest ways to exploit currently ethical/responsible tourism markets. However, as this study targeted a limited number of individuals in a niche market, inferences based on the research results are, to a certain degree, limited.

The total number of respondents was 147, from which: 29 (19.4%) men, 118 (80.3%) women; 97 (66%) represents students in the second year at Faculty of Business and Tourism, BAES (Bucharest University of Economic Studies) while 50 (34%) represents students in the third year at the same faculty; the students' families monthly income is under 3000 RON for 47 (32%), between 3000-4500 RON for 48 (32.7%), between 4500-6000 RON for 29 (19.7%) and up to 6000 RON for 23 (15.6%).

In terms of students' perception regarding the importance of ethical consumption behaviour we found that 6 respondents (4.1% of answers) are neutral, 71 respondents (48,3%) considered important the ethical consumption behaviour, while 70 (47,6%) as very important.

When highlighting the level of the following factors' importance that promote the consumption of ethical tourism products, it was reported that (Table no. 1): with a mean of 4.29, Economic aspects (increasing income, creating local jobs, developing infrastructure, utilizing local products, reducing poverty) are considered as being the most important, the Cultural aspects (conserving traditions and cultural patrimony; minimizing cultural conflicts) come on the second place with a mean of 4.17, followed by Social aspects (fair working condition, equal income distribution, community empowerment, eliminating discrimination) - mean 4.01 and Ecological aspects (conserving biodiversity, utilizing renewable resources, reducing waste) - mean 3.89. With a median higher than the mean, to Ecological aspects was granted a high score by the respondents in terms of importance (4), stating what motivates them to consume responsible/ethical tourism products. When referring to homogeneity of responses, Economic aspects ranks first with a the lower standard deviation of 0.7348, this means that in accordance with the majority of the respondents, the importance of these aspects was rated 4, which means "important". The Social aspects reported the highest standard deviation of 0.89125, thus being at the opposite side. However, with a mean of 4.01 and a median of 4.00, that embedded the fact that the appreciation of the respondents is rather different, these aspects receiving a high level of importance – 4 as "important". The mode values of 4 determined by the high degree of importance attributed to all factors that promote the consumption of ethical tourism products show the high frequency of responses.

**Table no. 1: Distribution indicators regarding the factors' importance that promote the consumption of ethical tourism products**

		Ecological aspects (conserving biodiversity, utilizing renewable resources, reducing waste)	Social aspects (fair working condition, equal income distribution, community empowerment, eliminating discrimination)	Cultural aspects (conserving traditions and cultural patrimony; minimizing cultural conflicts)	Economic aspects (increasing income, creating local jobs, developing infrastructure, utilizing local products, reducing poverty)
N	Valid	147	147	147	147
	Missing	0	0	0	0
	Mean	3.8980	4.0136	4.1769	4.2993
	Median	4.0000	4.0000	4.0000	4.0000
	Mode	4.00	4.0000	4.00	4.00
	Std. dev.	.89125	.86564	.73480	.89125

*Source: created by authors, based on research*

When it comes to appreciate the measure of the students' intention to buy tourism products that support the following aspects in a destination (Table no.2), Cultural aspects reported the highest mean – 4.31, followed by Economic aspects - mean 4.1905, Ecological aspects - mean 4.0408, Social aspects – mean 4.0204. In respect with the consistency of answers, the first rank was occupied by Economic aspects (standard deviation 0.83857), meaning that, generally, respondents assessed that these aspects deserve a 4 rating (high). At the other end there were Cultural aspects (standard deviation 0.84300), but taking into consideration the mean of 4.04 and a median of 4.00, it means that students have a relatively different

perception regarding the measure of the intention in buying tourism products that support cultural aspects in a destination, but these aspects were placed on the high level (4). There was a great number of responses granting a high intention' measure to the all aspects (mode values were 5 and 4).

**Table no. 2: Distribution indicators regarding the measure of the students' intention to buy tourism products that support the following aspects in a destination**

		Ecological aspects (conserving biodiversity, utilizing renewable resources, reducing waste)	Social aspects (fair working condition, equal income distribution, community empowerment, eliminating discrimination)	Cultural aspects (conserving traditions and cultural patrimony; minimizing cultural conflicts)	Economic aspects (increasing income, creating local jobs, developing infrastructure, utilizing local products, reducing poverty)
N	Valid	147	147	147	147
	Missing	0	0	0	0
	Mean	4.0408	4.0204	4.3129	4.1905
	Median	4.0000	4.0000	4.0000	4.0000
	Mode	4.00	4.00	5.00	5.00
	Std. dev.	.84300	.84780	.85049	.83857

Source: created by authors, based on research

The research results also implies that ethical/responsible tourism advocates necessity to be more visible on the market (Table no.3). According to the answers of the respondents, Higher prices (mean 4.0544), Lack of information and reticently (mean 3.9932), Lack of transparency and credibility (mean 3.3988) and Concern about safety issues at destination are the most salient factors that block students for consuming ethical/responsible vacations. These factors even outweighed Distrust about tourism products' quality (mean 3.8231) and Lack of availability of ethical/responsible tourism products (mean 3.7347).

**Table no. 3: Distribution indicators regarding the importance of factors that block students for consuming ethical/responsible vacations**

		Lack of availability	Higher prices	Lack of transparency and credibility	Distrust about tourism products' quality	Concerns about safety issues at destinations	Lack of information and reticently
N	Valid	147	147	147	147	147	147
	Missing	0	0	0	0	0	0
	Mean	3.7347	4.0544	3.9388	3.8231	3.9320	3.9932
	Median	4.0000	4.0000	4.0000	4.0000	4.0000	4.0000
	Mode	4.00	4.00	4.00	4.00	4.00	4.00
	Std. dev.	.76146	.78323	.83768	.85769	.84933	.90279

Source: created by authors, based on research

To the majority of the above factors, respondents granted a high score in terms of importance, in this cases the median being higher than the mean, apart from the Higher

prices factor. Regarding homogeneity of responses, on one hand The lack of availability factor ranks as first with a standard deviation of 0.76146, which means that in accordance with the majority of the respondents, the importance of this factor was rated 4 - important. On the other hand, Lack of information and reticently reported a standard deviation of 0.90279, but taking into consideration the mean of 3.9932 and a median of 4.00, means that the appreciation of the respondents regarding this factor is not so consistent as The lack of availability's factor. The mode value of 4 determined by the high degree of importance attributed to all factors that block students for consuming ethical/responsible vacations shows the high frequency of responses.

The salient factors that make students pay a premium for a responsible vacation are Conserving natural environment (mean 4.2517) and Preserving traditions and local culture (mean 4.2381). These factors were followed by Supporting local development projects (schools, hospitals, roads) (mean 4.1020) and Supporting the use of local products (mean 4.0612). The least important factors reported were Supporting local development programs (for local guides) (mean 4.0204) and Guaranteeing fair wages and working conditions for local workers (mean 3.7823). To only Lack of availability factor, students granted a high score in terms of importance, in this case the median was higher than mean. More, the answers regarding the importance of this factor reported more consistent scores - standard deviation is the lowest 0.76146 - than the Lack of information and reticently' factor were the importance scores widely spread out from the mean (standard deviation 0.90279). There was a significant number of responses granting a high importance scores to the all factors that make students pay a premium for a responsible vacation (mode values were 5 and 4). More than 86% of survey respondents were willing to pay additional (till 10%) over the market price (a premium) for responsible/ethical products that influence the sustainable development of the destination. Only 11,6% were willing to pay more than 10 % premium while 2% were not willing to pay.

### **Conclusions**

The main contribution of the paper is the analysis of the tourism consumption behavior of students which study tourism in Romania. We report that students find important the necessity of ethical consumption behaviour and economic aspects (increasing income, creating local jobs, developing infrastructure, utilizing local products, reducing poverty) are considered as being the most important factor that promotes the consumption of ethical tourism products. Also, students intent to buy tourism products that support the cultural aspects (conserving traditions and cultural patrimony; minimizing cultural conflicts) of a destination. Higher prices of ethical vacations are the most salient factor that blocks students for consuming ethical/responsible vacations and the significant factor that makes students pay a premium for a responsible vacation is the conservation of natural environment. These findings represents the base for the future research in order to test the association between the research variables such as intention to buy tourism products which sustain ethical consumption and factors that make students pay a premium for a responsible vacation.

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## **CONTRIBUTIONS TO THE SUSTAINABLE DEVELOPMENT OF ROMANIA'S TOURISM BRAND**

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### **Abstract**

Given the fact that until 2010 Romania didn't have a national tourism brand that followed a long-term plan, it is important that the current program, developed under the slogan "explore the Carpathian garden", to succeed in creating and maintaining a coherent and positive image of the country as a unique tourism destination, based on its competitive advantages. The sustainable development of the national tourism brand of Romania aims at creating a long-term program, during which Romania's tourism brand is desired to evolve and not be subjected to major changes. This way, Romania could have the capacity to stand out and differentiate among the competitors in the region and in Europe and to maintain an attractive image among Romanian and foreign tourists. In this context, the main objective of this article is to present the methodology, main results and conclusions of a qualitative research that was conducted among various specialists in the tourism field in order to support the sustainable development of Romania's tourism brand. The information presented in this paper emphasizes that the objectives pursued so far were not completely fulfilled and for the future it is important to take new measures in order to improve the evolution of Romania's tourism brand.

### **Keywords**

Tourism brand, national tourism brand, tourism destination, destination brand, tourism destination branding, tourism marketing.

### **JEL Classification**

M31

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### **Introduction**

In 2010 the Romanian Ministry of Regional Development and Tourism launched a new national tourism brand under the slogan "explore the Carpathian garden". Until then almost all the promotional actions regarding the national tourism brand of Romania had a

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relatively punctual character and did not followed a long-term plan. Thus, the objective of the new program was to create a long-term positive image of Romania's tourism brand by increasing its attractiveness at a global scale. In order to achieve that objective, many researches were conducted and contributed to the establishment of promotional strategies and marketing communication actions meant to improve Romania's image among both Romanian and foreign tourists.

In this context, the aim of this paper is to offer a perspective over the national tourism brand's capacity to achieve the objectives that it pursued so far and to offer some contributions to its future development. First, the paper presents a short literature review regarding the particularities of tourism destinations and it emphasizes the meaning and main features of this concept. Further, the paper focuses on the concept of national tourism brand and it presents the development and the characteristics of Romania's tourism brand. The next part of the paper is dedicated to the presentation of a qualitative research that aimed at analyzing the opinions expressed by various specialists in the tourism field, such as employees of various public institutions involved in the development of national tourism brand, managers of travel agencies, university professors and passionate travel bloggers, regarding Romania's tourism brand. The research results, presented in the final part of this paper, can offer some directions for the future sustainable development of Romania's tourism brand.

#### **Tourism brand – the tourism destination's mark**

Defined as “the place or the geographical area where a visitor or a tourist stops for either overnight stays or for a period of time, or as the terminus point of a tourists' journey” (Stăncioiu, 2004, p. 67), the *tourism destination* can be a country, a city, an area or “a wider region that includes territories of several countries, a province or other administrative entity” (Băltescu, 2010, p. 113). At the same time, not every city or region can be considered a travel destination. A given area must meet certain conditions in order to be considered a tourism destination, including “to have an adequate touristic potential and to meet, at the same time, other infrastructure, complementary goods and services related requirements which may increase its attractiveness” (Stăncioiu, 2004, p. 67).

Likewise, a destination not only refers to the geographical area but it also has a socio-cultural intangible component, comprising all the inhabitants of that area, with traditions, customs, culture etc. and it also represents “the image created in the minds of potential consumers about the tourism product” (Stăncioiu, 2004, p. 68). All these elements are also the factors by which the uniqueness of the tourism destination is assessed (Beunders in Băltescu, 2010, p. 113).

From the promotional perspective, destinations have a life cycle similar to tourism products, and destination marketing aims at creating and maintaining the interest and popularity of the destination in the minds of consumers. These actions are based on the *destination image* which “represents all the information and impressions communicated to potential consumers about population, infrastructure, climate and environment, history, attractions, personal safety etc” (Echtner and Brent in Stăncioiu, 2004, p. 71). Moreover, the concept of tourism image is complementary to the positioning concept, and in terms of tourism marketing by positioning we understand the efforts for customizing a country's image in the spirit of potential travellers. Also “it consists of correlating the image that a tourist has made about a country and the unique and original realities of that country” (OMT, 1979 in Gherasim and Gherasim, 1999, p. 43).

Therefore, the *destination brand* is defined as “a name, a symbol, a logo, a keyword or any graphic sign that identifies and therewith differentiates a destination; furthermore, it expresses the promise of a memorable travel experience that is uniquely associated with the destination; [the brand] serves to reinforce the emotional connection between visitor and destination” (Ritchie and Ritchie, 2008 in Stăncioiu et al., 2011, p. 140). Similarly, Leisen (2001 in Marzano and Scott, 2009, p. 248) sees the destination brand as a powerful tool that has the ability to appeal to the emotional, and he considers that the brand image plays a crucial role in the success of the marketing program for a certain tourism destination.

Seen from both the perspective of visitors and the natives’ perspective, the destination brand refers to the personality of that place, to the emotional relationship between the destination and visitors (Handbook on Tourism Destinations Branding, 2009 in Briciu, 2013, p. 11), but the values perceived by consumers should also be acknowledged by locals. Ideally, these two perspectives – the visitors’ and the locals’ – complete one another (Handbook on Tourism Destinations Branding, 2009 in Briciu, 2013, p. 8). Therefore, the destination branding is a powerful marketing tool (Morgan et al., 2004 in Park and Petrick, 2006, p. 262) which guarantees the quality of the experience, reduces the costs of finding the destination and simultaneously provides a way for destinations to establish a unique offering (Blain et al., 2005 in Garcia, Gomez and Molina, 2012, p. 647).

In conclusion, a destination is a complex concept because it is a sum of tangible and intangible elements at the same time. The destination can be a tourism product or an aggregate of tourism products, and one of the elements that makes it unique consists of all the services that differentiate it (Nedelea et al., 2014, p. 105).

#### **Romania’s tourism brand**

The project that regarded the creation and implementation of a national tourism brand started in 2007, the date on which Romania became a EU member and in order to develop this new program received European funds worth 75 million euro for the period 2007-2013 (MRDT, 2012). The project aimed at creating a positive image of Romania as a tourism destination by defining and promoting the national tourism brand. Since 2010, Romania has begun to promote itself as a tourism destination under the current visual identity (fig. no. 1) and under the slogan “explore the Carpathian garden”.



**Figure no. 1: Romania’s tourism brand logo**

*Source: MRDT, 2010*

The second step in the process of creating and promoting the national tourism brand was represented by the implementation of the Strategic and Operational Tourism Marketing Plan of Romania for the period 2011-2015. The campaigns developed by The Ministry of Regional Development and Tourism in order to promote the national tourism brand of

Romania aimed at building a positive image of the country as a tourism destination, both internally and externally, presenting its competitive advantages and also aimed at strengthening the brand image so that Romania could stand out among all other competitors in the region and in Europe. Based on a series of researches that emphasized the main attributes and benefits that Romania offers, it has been created a brand identity and personality that reflects both Romania's image abroad and Romanians points of view, including tourists and specialists working in the field of tourism. A total of six key tourism products were identified among which there are: rural tourism, wildlife and natural parks, health and wellness, active and adventure tourism, circuits and city breaks (MDRT, 2010, p. 9). The main competitive advantages that our country possesses are: the intact nature in many areas, the specific quiet rural lifestyle, the many medieval towns and the Latin-Byzantine cultural legacy, reflected especially through the monasteries paintings. The complete list of objectives pursued by this program, set for completion by the end of 2020, is presented in table no. 1 (MDRT, 2010, p. 27).

**Table no. 1. Romania's tourism brand objectives**

Information	Raise awareness	Internal: Increase from 40% to 75% the number of Romanians that are aware of most of the sights in Romania. External: Double from 30% to 60% the number of people who can think of something unique about Romania.
	Improve understanding	External: Double from 27% to 50% the number of people who can name one of Romania's unique features (especially focusing on culture and nature).
Motivation	Improve image	Internal: Increase from 26% to 45% the proportion of Romanians that prefer spending their holidays in Romania rather than abroad. External: Increase from 45% to 65% the proportion of international tourists who have a positive image about Romania.
	Explain the attributes and benefits	External: Double from 26% to 50% the number of people that spontaneously mention positive associations about Romania rather than negative associations.
	Create preference	Internal: Increase from 26% to 50% the number of tourists who prefer Romania to other destinations. External: With reference to the six key products, Romania will be perceived as more attractive than all its competitors.
Action	Increase sales	Internal: Increase by 50% the number of Romanian travel agencies that are selling destinations in Romania. External: Increase by 25% the number of tour operators that are selling destinations in Romania.
	Stimulate repetition	External: Increase from 56% to 75% the proportion of visitors who will return to Romania.
	Stimulate recommendation	Internal: Increase the proportion of Romanians who recommended the country as a destination to other tourists. External: Increase from 50% to 70% the proportion of international visitors' recommendations.

Source: MRDT, 2011

In order to become an attractive destination at an international level, the Master Plan for national tourism development (2007-2026) envisions a series of concrete actions implemented both internally and externally until the end of 2026. As mentioned in the Master Plan, “the development of tourism does not happen automatically, as it is related to image and reputation. Successful and sustainable tourism requires both cooperation between all responsible entities and the formation of partnerships between the public sector, which should support tourism, and the private sector, which should provide facilities and services for different markets and market segments. Without understanding the objectives and issues at a mutual level, it will not be possible to develop touristic actions in a satisfactory and beneficial way.” (MRDT, 2007, p. 85).

### **Research methodology**

Referring to Romania as a tourism destination with a huge potential, a qualitative research was conducted, aiming at exploring the experts’ opinions in the field of tourism about the current tourism brand of Romania, as promoted under the slogan “explore the Carpathian Garden”.

The objectives were to find out, in a first phase, the experts’ opinion on the importance and, generally, the role played by the tourism brand of a country, then in the second phase, about how the programs meant to promote the national tourism brand can influence the perceptions of tourists, and in the last phase, to carry out a SWOT analysis of the promotional program for Romania’s tourism brand. In the selection of participating experts, we aimed at achieving a diversified segment of experienced people in this field (employees of various public institutions involved in the development of national tourism brand, managers of travel agencies, university professors, passionate travel bloggers etc.). Therefore, the group of experts participating in this research was composed of eight individuals with positions in various branches of tourism in Romania.

Data collection for this research was performed by using the structured individual interview, which was chosen given that this type of interview allows to obtain factual information from specialists in the field.

The research was conducted between April 5<sup>th</sup> to May 10<sup>th</sup> 2016. The interview guide consisted of 10 open questions, ranked by research objectives.

### **Analysis and interpretation of research results**

**The first objective** of the research sought to *determine the experts’ point of view on the role played by a country’s tourism brand*. The answers given highlighted that the role of a country’s tourism brand is very important, and its designing and developing presents significant implications at both touristic and macroeconomic levels of a country.

Creation, development and support of a tourism brand has strong connections with both a country’s identity and positioning which it can pursue, but also with the image that it projects in the mind of tourists or of potential tourists. Creating a tourism brand of a country should focus on highlighting the identity of that country and on exploiting its tourism potential. The role of a country’s tourism brand must also be interconnected with the positioning that is intended to be obtained, and also with the image that is supposed to be created in the minds of tourists, creating associations of trust and security to that country. All efforts to develop a country’s tourism brand should aim to attract flows of tourists, which is reflected in benefits to both the tourism sector and the macroeconomic sector of a country.

**The second objective** of the research aimed at *knowing the opinions regarding the ability of the national tourism brand promotional programs to influence the perceptions of tourists/potential tourists*. The opinions expressed by experts have shown that the national tourism brand promotional programs is significantly influencing the perceptions of tourists, but their ability to influence must be supported by continued efforts of promotion and communication to the target group. These programs can pursue the objectives of tourist information, and also objectives which involve the modification of certain perceptions and associations created in relation to a country.

**The third objective** of the research aimed at *knowing the experts' opinion regarding the Romania's tourism brand promotional program, "Explore the Carpathian Garden"*. It was analyzed by three discussion topics.

The first topic of discussion aimed at *identifying the experts' opinion regarding the promotion achieved so far for Romania's tourism brand*. According to the expressed opinions, although the efforts made so far have succeeded to bring certain developments regarding Romania's positioning, they were however insufficient, especially in terms of financial investments, and not all opportunities were fully exploited.

The second topic of discussion sought to *assess the efforts to promote the national tourism brand communication programs to the internal target audience*. The interviewed experts expressed an unanimous opinion that these programs were not sufficiently promoted so as to fulfill their aimed objectives, the main problem being the lack of complex and diversified communication operations, especially for the internal target audience.

The third topic of discussion sought to *assess Romania's ability to position as an attractive tourism destination generated by the promotion programs of the current national tourism brand*. In this case, the experts' opinions are divided between those who believe that the efforts are positive, but they cannot be considered as sufficient for better positioning of Romania, and those who think that the efforts were not enough.

**The fourth objective** of the research aimed at *identifying the strengths of Romania's national tourism brand*. The main strengths highlighted were represented by the fact that the communication programs of national tourism brand identified and promoted forms of niche tourism that Romania can support successfully, and it also promotes natural tourism resources, anthropogenic, and tourist destinations unique and representative for Romania (promoting the mountain area, with all of its attractions, with all forms of tourism that we find in this area; promoting activities taking place rather in the summertime - hiking, adventure, sports, exploration, circuits etc., promoting hospitable people, traditions and customs).

**The fifth objective** of the research aimed at *identifying the weaknesses in Romania's national tourism brand*. In this case, the main weaknesses derive from non-inclusion of important destinations or forms of tourism that could have highlighted Romania's tourism potential in the program of the national tourism brand of Romania, the fact that the programs were not sufficiently promoted, but also that this program has been associated with several scandals, the most important being related to plagiarizing the logo.

**The sixth objective** of the research aimed at *identifying untapped opportunities of the promotional campaigns of Romania's national tourism brand*. The mentioned untapped opportunities are either related to some tourism destinations in Romania that have not been highlighted by the program, or to some forms of tourism that have a high potential (such as balneotherapy and medical tourism and wellness tourism).

**The seventh objective** of the research aimed at *identifying the threats in terms of the image promoted by Romania's national tourism brand*. A category of identified threats may result from the fact that the national tourism brand seeks to project a certain image of Romania, which may not be shaped properly and can set high expectations which after the direct experiences of tourists will not be met.

**The eighth objective** of the research aimed at *identifying the most appropriate means of communication and promotion of Romania's national tourism brand*. In this case the experts' opinions expressed the fact that both traditional and alternative means of communication can prove their effectiveness, and also the current ones which are implemented in the online environment, the key of success being the permanent adaptation to the specific target audience concerned.

The presence and promotion through as many means cannot guarantee, however, the success in attracting a large number of tourists, so the experts stressed that the programs should be built on the basis of strategies, of holistic approaches that would highlight the specificity of the national tourism brand, being able to transmit it to the target audience in a manner as easy as possible.

Another important element related to the programs promoting the national tourism brand is the fact that communication actions should aim at strengthening an accurate image of the country, and in this sense not only appealing to the classical or modern media can be useful, but also to direct promotion through freely expressed opinions of tourists.

### **Conclusions**

After analyzing the feedback from the experts participating in this research, a number of important conclusions can be drawn. The opinions expressed in the interviews reveal unanimously the importance of creation, development and management of a country's tourism brand. The benefits of designing such a brand are reflected both in the tourism industry, in particular, and also at the macroeconomic level, in general. Creating a flow of tourists toward a certain destination undeniably contributes to the development of that area, both economically and socially, because they generate additional income and stimulate the investments.

Regarding the development of a tourism national brand, the experts noted that it must interconnect a number of key concepts, starting from the identity of Romania and continuing with the pursued positioning, the image that is intended to be projected and the trust it needs to gain among potential or actual tourists. Thus the design of some such programs in support of the national tourism brand should be able to outline a clear and distinct image in the minds of tourists and create a sense of trust and security. The capacity of development programs for the national tourism brand to influence the perceptions of tourists or potential tourists is very high, but it must be supported by communication and promotion actions addressed to the appropriate target group.

The national tourism brand programs developed so far have managed to some extent to create a distinct positioning of Romania, but the efforts are not enough, especially in terms of the financial investment made and in terms of fully exploiting all existing opportunities.

The main advantages provided by the current promotion program of the national tourism brand derives from the operation and highlighting of natural and anthropogenic tourism resources possessed by our country and the promotion of specific forms of niche tourism, which is addressed to a well identified audience. However, important destinations or forms of tourism that could have highlight the tourism potential of Romania were not included in

the current promotion program, which could provide opportunities for the future tourism development of Romania. But the exploitation of any opportunities should be made based on complex studies and analyses and based on a carefully constructed strategy in this regard.

In terms of selecting the most appropriate means of communication and promotion of Romania's national tourism brand so that the message easily reaches the desired target audience, the options are of the most diversified. Either opting for the traditional means of communication (TV, radio etc.), or for the online ones, the essential fact remains that they must aim at well-defined objectives and must be adapted to the specific target audience and should generate measurable results.

The main limit of this research derives from the small number of specialists interviewed, so that the opinions expressed in this research are not sufficient in order to provide a significant contribution to the sustainable development of Romania's tourism brand. Future researches should be carried out periodically on a greater number of specialists in order to observe the long-term evolution of the implementation process and to determine the level of objectives fulfillment.

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## CURRENT CHALLENGES FOR THE ROMANIAN ACADEMIA. MAY ENTREPRENEURSHIP BE A LIFELINE?

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### Abstract

Currently, worldwide academia faces various challenges, such as increased competition from both universities and organizations that are not part of the education system, but offer different courses, negative demographic trend, the economic crisis, massive funding cuts, etc. As a particular case, Romanian academia has been and is still subject to continuous pressure, mainly generated by increased competition and constant transformation imposed by a number of factors such as numerous education reforms, repeated legislative amendments, increased bureaucracy, etc.

In this paper, we outline a series of issues faced by Romanian academia at this moment, focusing on the demographic trend, the decline in attractiveness for university education, the high rate of unemployment among young university graduates, and the lack of investment in education. By providing a descriptive analysis of these specific issues, that are leaving a negative mark on the development of Romanian academia, we mainly aim to raise awareness among university leaders, policy makers, and public authorities, and to emphasize the need for special measures to speed up the solving process. Furthermore, we analyze entrepreneurship as a factor that may provide an important contribution to the improvement of the outlined context.

**Keywords:** academia, higher education institutions, Romania, challenges, entrepreneurship

**JEL Classification:** A23, I23

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### Introductory remarks. Focus on literature review

Currently, there is an increased trend to consider the spending in the education and health sectors as valuable investments in the future of a country and not as mere costs. If the health system deals with the physical and mental health of a nation, the education system deals with the transfer of knowledge, with the development of the creative and innovative side of the human nature, this way, playing a key role in the personal and social development of the citizens of a country.

In this context characterized by the special importance of education in designing and developing 'healthy' societies, universities in the European area are exposed to increasingly higher pressures, like:

- increased competition - both from newly established universities in Europe, and from North-American and Asian universities - which damaged the academia that became one characterized by high competition, sometimes even aggressive, mainly because of the desire to attract more and more students;
- competition from organizations that are not part of the education system, providing online courses;
- the negative demographic trend;
- the economic crisis, which has negatively impacted especially young university graduates and that led to a worrying increase in the rate of unemployment among young Europeans;
- massive funding cuts that have led to an entrepreneurial orientation of universities in order to attract new sources of funding and to organize and manage themselves based on principles of efficiency, sales, and profits;
- increase in the number of regulations that universities must face (acts of government, quality standards, accreditation standards, etc.) which led to the bureaucratization of the work of teachers, to the detriment of the intellectual activity, research, and teaching, diminishing this way the role of promoting culture and moral and ethical values of universities;
- the systems of accreditation, hierarchy and multiple classification, which often involve different assessment criteria etc.

The rapid and major changes occurred in university life in Europe in recent years have led, most often, to the expected effects, as they were introduced without any prior pilot nor impact studies. In this context, Molesworth, Scullion and Nixon (2011) show that the United Kingdom policy to encourage the expansion of universities in order to create workforce of certain competences led only to an increase in competition between higher education institutions that, increasingly more, began to treat their students as customers and to be focused on raising their capacity to meet customers' needs; in this context, students began to consider their university graduation as a right for which they pay. As a consequence, there is an increased concern in the United Kingdom about the high competition coming from foreign universities, especially from the Far East. This determined Phil Baty, editor of Times Higher Rankings, to express the following: "*Outside the golden triangle of London, Oxford and Cambridge, England's world-class universities face a collapse into global mediocrity ... Huge investment in top research universities across Asia is starting to pay off.*" (Paton, 2012)

At the beginning of our new century, quality and excellence were central to the academia. However, since 2006, Harry Lewis, professor at Harvard College for 32 years and dean between 1995 and 2003, sounded the alarm in his work "Excellence Without a Soul - Does Liberal Education Have a Future?". According to the author - and his opinion is highly shared all over the world in the academia - by modifying the curricula that have become richer than ever, but are no longer focused on outstanding ideas, universities have made remarkable progress in the transfer of knowledge, but they forgot their fundamental purpose and they abandoned their mission to transform teen agers from fresh high school graduates into society's responsible adults that will shape its future. After 11 years since the work was published, we share the author's opinion. Nowadays, in the Romanian academia there is an unique focus on professional and transversal competences, on the purely technical side of each subject, notwithstanding the values, ethics and morality. Each subject can be taught to students also by explaining the positive and negative effects each decision

can have at the economic level, but also at the social level. Students need to become aware that any of their actions is likely to affect not only the financial results of an organization but also the lives and destinies of their colleagues / employees and clients.

During the economic crisis, the academic world began to shift ever more towards the concept of marketization, existing since 1970, by applying different corporate models, mainly with the intention of increasing their degree of flexibility and efficiency, due to their adaptation to market requirements, and also to the requirements of the students and of their parents. According to Furedi (2011, p. 1) - opinion also supported by Macdonald (2011, p. 14) - as an effect, the academia began to be viewed as a provider of education. Somehow, this is also how the concept of entrepreneurial university emerged. The academic education started to be considered as a good, students began to be treated as customers with requirements and needs that need to be identified and met, the assessment of students' satisfaction started to be seen as an indicator of the quality of university education, etc. According to the concept of marketization, the customer is always right, and students started to feel more and more entitled to complain, leading to an increase in frustration among teachers. The 'culture of complaint' has turned education into a defensive one and the students have been declared the 'agents of change' emphasizing the idea according to which they know best how they want to be taught and how to improve the teaching techniques (Furedi, 2010).

### **1. Brief fundamental aspects of the paper**

As previously emphasised in the introductory part of the paper, there are various challenges the academia worldwide faces nowadays, such as: place and role in society; financing; quality; offered programs; favourite fields of study vs. those considered obsolete; vocational tertiary education institutions vs. universities; the emergence of new universities which, by their inclusion in the higher education, creates expectations and a high level of academic prestige, but through the level of offered education creates an erosion of the academic prestige; ongoing legislative changes; etc. All these are highly approached in the specific scientific literature. The Romanian academia is not an exception of the above mentioned context. The challenges it faces are quite varied and many of them are very difficult to overcome.

In this paper, we focus on laying out a series of issues the Romanian academia faces nowadays. By providing a descriptive analysis of these specific issues - outlined in the second section of the paper - we mainly aim to raise awareness among university leaders, policy makers, and other public authorities and to emphasize the need for taking special measures in order to facilitate their solving process. In this sense, we also approach entrepreneurship - from different perspectives - as a proper solving solution.

### **2. Analysis of the issues faced by the Romanian academia - main results**

The Romanian higher education has been and is still subject to continuous pressure, mainly on two directions. On the one hand, there are the continuous transformations imposed by a number of factors, including: the many education reforms which have not been always characterized by continuity and a common vision; repeated legislative amendments; transfer to universities of administrative activities based on the principle of university autonomy (eg. the contests for staff hiring); development of multiple reports; increased bureaucracy by introducing mandatory management systems; the emergence of several international systems of university ranking, each with their own criteria; increasing the

demands for professors' evaluation in order to promote, focusing on international visibility (with negative financial implications for the professors - participation fees for conferences, taxes for publishing scientific papers in prestigious international journals); different systems of assessment, accreditation, certification, etc. On the other hand, the growing competition between universities - created by both the emergence of many universities and by reducing the number of graduates - has 'forced' universities to continuously adapt the curricula and the offered programs taking into consideration both the requirements and preferences of the candidates and the requirements of the workforce market. Further on, we outline in a detailed manner only a series of the challenges the Romanian academia has to face, focusing on entrepreneurship as a key factor in their solving process.

**The demographic trend**

During 1989-2016, Romania's population decreased by 14.65%, from 23,151,564 (National Institute of Statistics, 2009) to 19,760,314 people. According to Giannakouris (2010, pp. 11-16) Europe's population will experience a growth of 5% between 2008 and 2030, with large differences between its countries and regions. By 2030, Romania is expected to face a reduction in population nearly by 1.3 million, both due to a negative natural increase of -3.1 ‰ and to a migration rate of 0.1 ‰ (Giannakouris, 2010). According to Eurostat (2017a), Romania is the European Union's country with the largest population decline between 2011 and 2015 - with 328,412 inhabitants (trend continued in 2016, when Romania's population has decreased by 110,679 persons). In terms of age distribution, European Union's population faces a progressive process of aging as a result of low fertility rates and of the increase in life expectancy. Romania is not an exception of the mentioned scenario, which led to a reduction in the school population ranging between 19 and 23 years old. This age range is specific to the university studies. Furthermore, the lowest level of coverage coincides with the period of the financial crisis (2011-2013), which highlights the direct link between the household income and enrolment in an educational institution. (Table no.1)

**Table no. 1: School-age population enrolment rate in education between 2010 - 2015**

Age group for enrolled population: 19 - 23 years and over	Years				
	2010	2011	2012	2013	2014
	MU: Percentage				
	70.1	59.7	55.4	54.5	66.4

Source: National Institute of Statistics, 2016

Note: "The school-aged population enrolment rate (specific rate of school enrolment by group age) in education represents the total number of students within an age group, regardless of the education level, as percentage of the total resident population of the same age group." (National Institute of Statistics, 2016)

In order to try to solve the issues related to the negative demographic trend and to the aging population, higher education institutions may expand their entrepreneurial orientation and they may focus their activity also on other categories of 'target' clients. They should broaden their horizons and they should start offering different courses to other types of clients such as elderly people (for example seniors), migrants, etc. In the frame of an increased trend for fostering entrepreneurship among seniors and other disadvantaged groups, such as migrants or ethnic groups - especially as a proper mean for social inclusion,

providing entrepreneurial education to these categories may be a viable option. In the same context, besides business related courses, other types of courses may be offered in different areas like nutrition, health, education, sports, foreign languages, etc., depending on the targeted clients.

***The decline in attractiveness for university education***

In 2015, in Romania there were 567 public and private colleges - that number has increased between 1990 and 2005 (from 186 to 770), and then decreased steadily. In the same year (2015) were registered 99 universities out of which 56 were public and 43 private. Universities face a similar evolution to the one of the faculties: if in 1992 there were only public universities (namely 62), in 1995 started to appear the first private universities (total of universities: 95, out of which 59 public and 36 private), the maximum number being registered in 2000 (total of universities: 126, out of which 59 public and 67 private). After this year, except for 2008, the overall number of universities continues to decline: in case of private universities, from 52 to 43; in case of public universities, their number maintained until 2015, at 56. Thus, there is a paradox: despite the decrease in Romania's population by 14.65% (between 1990 and 2016) and the reduction of approx. 66% of the enrolment rate in education of the population aged between 19 and 23 years old (in 2014), the number of universities increased by 60% and the one of faculties, more than 3 times.

During 2011-2015, the number of students in undergraduate studies decreased by 23.92%, a steeper reduction being registered for private universities - 57.80%, and a smoother one for the public universities - 12.02%. If in 2011, students enrolled in private universities accounted for 26.00% of the total number of students, in 2015 they accounted for no more than 14.43%. Thus, it can be noticed a reduction of their interest in private higher education, and an orientation towards public universities.

Economics is in the top of young high school graduates preferences; approx. 17% of students enrolled in undergraduate degree programs follow studies in the area of economic sciences.

In the context of reducing the number of students enrolled in undergraduate degree programs, a decrease in the graduates of these studies during 2010-2014, can also be observed. In this period, the number of graduates decreased by 54.51% (a reduction of 26.31% in the public universities and of 82.10% in the private universities) (Table no. 2)

**Table no. 2: Graduates of tertiary education**

Level of education	2010	2011	2012	2013	2014 (with diploma)
Tertiary education	186,900	136,671	111,028	95,022	85,028
Public tertiary education	92,444	92,605	81,081	73,305	68,124
Private tertiary education	94,456	44,066	29,947	21,717	16,904

*Source: National Institute of Statistics, 2016*

The same situation is also valid at European level, Romania being below the European average of the population aged between 30 and 34 years old that have completed different study programs of tertiary education. Also, the target for 2020 is below the average level registered by the European Union member states a decade ago.

Romanian universities should appeal again to their entrepreneurial side and should focus more on creativity in attracting new potential 'clients', respectively students. Also, a

stronger cooperation with the business environment may be a plus in attracting young students as, generally, they are thinking at following an university as a 'certain ticket to getting a job'.

#### ***The unemployment among young university graduates***

Due to the increase in unemployment among university graduates, young high school graduates are becoming less interested in following university studies. The analysis of data from the National Institute of Statistics in Romania, outlines that unemployment among college graduates, aged between 25 and 34 years old, recorded between 2011 and 2014 an increase by 56.5%. However, in 2015 it decreased by 24.32%, returning almost on the unemployment rate in 2012. On the other hand, 2016 stands out from the analysed time series; only in its first three quarters it registered an increase in unemployment of graduates, 2.14 times over the previous year.

However, during 2010-2015, in Romania, the unemployment rate among young people aged between 25 and 29 years was below the European average. Also, for example, in 2015, the same unemployment rate was far below the one registered in a series of European Union member states like Greece, Spain, Croatia, Italy, Cyprus, Portugal, and Slovenia.

For overcoming the unemployment related issue, universities should focus more on offering a proper entrepreneurial education to their students. Developing students' entrepreneurial spirit and encouraging them to follow an entrepreneurial career may bring a contribution to the development of entrepreneurship, implicitly to new jobs generation and to decreases in the unemployment rate. On the other hand, a strong collaboration between universities and the business environment may lead to the development of different types of projects - such as traineeship programs - that may help students in getting a job easier after graduation.

#### ***The investment in education***

The investment in education in Romania (expressed as % of the GDP) is at its lowest level in the European Union. As data from the European Commission through the Eurostat database is not so detailed as in the case of other indicators, the education funding in the European Union is analysed only during 2012, 2013, and, in part, 2014 (Eurostat, 2017b). Romania has the lowest investment in education in the European Union: only 2.64% of the GDP in 2012 and 2.70% of the GDP in 2013. On the opposite, Sweden leads the top, both in 2012 and in 2013 - 7.38% of the GDP in 2012, respectively 7.43% of the GDP in 2013 - being closely followed by Finland - 7.12% of the GDP in 2012, respectively 7.16% of the GDP in 2013. Other countries with low investment in education in the European Union are Slovakia (3.05% of the GDP in 2012 and 4.12% in 2013) and Bulgaria (3.68% of the GDP in 2012 and 4.27% in 2013).

If the Romanian government assigns such low shares of the GDP for education, universities may appeal again to their entrepreneurial side and to try to obtain funds and investments from different sources. The business environment may be a valid option. Furthermore, a good strategy may involve the development of a strong connection with alumni that, in various ways, may 'serve' the academic community that contributed to their development.

#### **Conclusions**

Education plays a key role in designing and developing 'healthy' societies. Currently, the academia around the world faces various challenges, many of them quite difficult to overcome. Few examples may include the increased competition from both universities and

organizations that are not part of the education system, but offer different courses, the negative demographic trend, the economic crisis, the massive funding cuts, or the increase in the number of regulations. Different changes occurred over time, somehow, 'pushed' universities to become more flexible and to adapt to different market conditions. They became more oriented towards an entrepreneurial approach and have embraced more the concept of marketization: curricula became richer than ever, students started to be seen as clients, the assessment of students' satisfaction started to be seen as an indicator of the quality of university education, etc. In a way, this damaged the primordial role of universities, namely of raising responsible adults that will leave a mark on the development of their society.

Besides the already emphasised issues, the Romanian academia has been and is still subject to continuous pressure, mainly generated by the increased competition and by the continuous transformations imposed by a number of factors such as the many education reforms, repeated legislative amendments, transfer to universities of administrative activities based on the principle of university autonomy, increased bureaucracy, different systems of assessment, accreditation, certification, etc. Also the negative demographic trend, the decline in attractiveness for university education, the high rate of unemployment among young university graduates, and the poor investment in education are leaving a mark on the development of the Romanian academia. All these factors were analysed in a complex way in the present paper.

During 1989-2016, Romania's population decreased by 14.65%, from 23,151,564 to 19,760,314 people and by 2030 is expected to face a reduction in population nearly by 1.3 million, due to both a negative natural increase and to emigration. In terms of age distribution, the European Union's population faces a progressive process of aging as a result of low fertility rates and of the increase in life expectancy. Romania is confronted with a reduction in the school population ranging between 19 to 23 years old - age range specific to the university studies.

However, despite the decrease in Romania's population by 14.65% (between 1990 and 2016) and the reduction of approx. 66% of the enrolment rate in education of the population aged between 19 and 23 years old (in 2014), the number of universities increased by 60% and the one of faculties, more than 3 times. During 2011-2015, the number of students in undergraduate studies decreased by 23.92%, a steeper reduction being registered for private universities - 57.80%, and a smoother one for the public universities - 12.02%. It can be noticed a reduction of young high school graduates' interest in private higher education, and an orientation towards public universities. Economics is in the top of young high school graduates preferences; approx. 17% of students enrolled in undergraduate degree programs follow studies in the area of economic sciences. In the context of reducing the number of students enrolled in undergraduate degree programs, a decrease in the graduates of these studies during 2010-2014, can also be observed. The same situation is also valid at European level, Romania being below the European average of the population aged between 30 and 34 years old that have completed different study programs of tertiary education.

On the other hand, due to the increase in unemployment among university graduates, young high school graduates are becoming less interested in following university studies. The analysis of data from the National Institute of Statistics in Romania, outlines that unemployment among college graduates, aged between 25 and 34 years old, recorded between 2011 and 2014 an increase by 56.5%, but in 2015 it decreased by 24.32%.



However, during 2010-2015, in Romania, the unemployment rate among young people aged between 25 and 29 was below the European average.

Besides the decrease in the interest of young people in following university studies and the reduction of the number of graduates, Romania academia also faces financial constraints coming from the public authorities. The investment in education in Romania (expressed as % of the GDP) was at its lowest level in the European Union in 2012 and 2013.

This trend can only be harmful to a serious, solid, and prestigious education and students may miss the real education. Policy makers and public authorities, along with universities' top management need to raise awareness on these issues and to strengthen their collaboration. In this context, entrepreneurship - approached from different perspectives - may represent a viable mean for solving the outlined issues.

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## EMPLOYEE IT SATISFACTION LATENT FACTORS EVALUATION USING TECHNOLOGY ACCEPTANCE MODEL IN MANDATORY

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### **Abstract**

Client facing employees are key in business success, especially in mandatory Information Systems environments like financial institutions. Therefore, understanding “how” specific technology serves the purpose is critical in taking the right decisions or change management. This paper evaluates the influences of various Information Systems constructs with Technology Acceptance Model along with confirmation bias, by use of structural equation modelling. The research was done of a financial institution and used a survey instrument with 596 employees with various client facing roles. This study shows not only the relevancy of the perceptual TAM constructs but also importance of other organizational capabilities in a mandatory environment. We explained the “Why” of opinions and “How” behind the job user experience and employee satisfaction using elements from Attribution Theory as confirmation bias. Model hypothesis were validated and model parameters are used for improving the status, as well as evaluating potential impact using structural equation.

### **Keywords**

job user experience, employee satisfaction, technology acceptance model, user experience, banking, employee motivation, structural equation modeling.

### **JEL Classification**

O15, O33, C12, C83, O 32, O31

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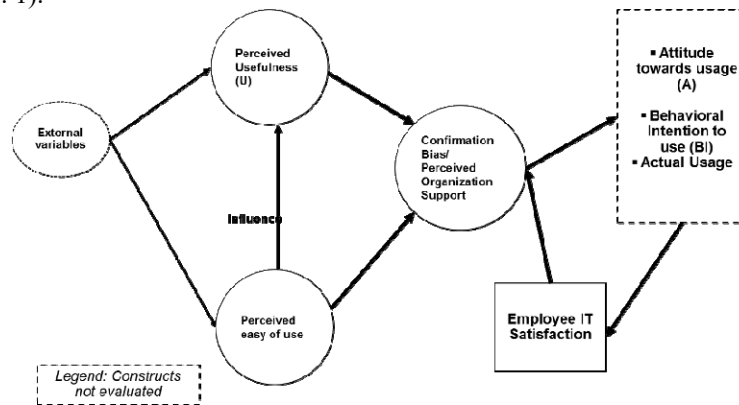
### **Introduction**

Mandatory environments (Venkatesh and Davis, 2000; Hwang, Al-Arabi and Shin, 2015), imposes a specific workplace to employees, with restrictions and specific requirements. Typically banks, through employees or alternate channels (Sarkar, 2009) provides a wide range of services (Abdullah et al., 2014) including mobile services (Singh, Srivastava and Srivastava, 2010; Luarn and Lin, 2005). Thus, employees need to use a series of information systems to provide services to external customers and feels empowered (Schneider and Bowen, 1985; Sowmya and Panchanatham, 2011; Sekhar, Patwardhan and Singh, 2013) or supported (Eisenberger, Cummings, Armeli and Lynch, 1997) – receiving an expected level of organizational support. This paper looks for additional insights from

integrating elements from causal attribution with Information Systems perception for task fulfilment and job satisfaction.

**1. Literature review and methodology**

To evaluate how individuals decides to use or interacts with Information Systems, many studies used Technology Acceptance Model, also mentioned as TAM, to investigate how technology and environmental factors leads to technology adoption and usage. Other earlier theories as Information Diffusion theory or Innovation adoptions were reviewed over time (Rogers, 1995). Literature is abundant in critical reviews (Marangunić and Granić, 2015) that presents various TAM model validation techniques or approaches in multiple empirical studies, as a benefit of its versatility. Criticism was brought to attention also (Lee, Kozar and Larsen, 2003) about model limitations (Schepers and Wetzels, 2007). Original TAM model (Davis, 1986; Davis, Bagozzi and Warshaw, 1989;) originated from two psychology related theories: Theory of Reasoned Actions – TRA and Theory of Perceived Behavior - TPB (Ajzen, 1991; Madden, Ellen and Ajzen, 1992; Marangunić and Granić, 2015). Original model evolved over years (Chuttur, 2009). TAM is based on influence of two main constructs – Perceived Usefulness and Perceived Easy of Use. For the purpose of this paperwe consider the original model (Davis, 1986) enhanced with element introduced by conformation bias reflected as trust in organizational support from Causal Attribution Theory (Kelley, 1973; Puccinelli et al., 2009). TAM constructs evaluate and predicts the behavior by use of perception of specific attributes that fits into categories of perceived utilitarian dimension and accessibility. Davis (1986) evaluates a significant positive relationship from perception constructs towards attitudinal and behavioral intention to use. However, in mandatory, regulated environments as cited earlier the influence over behavior is limited, more reflecting in a series of inner states related to evaluation of perceived value and perceived capabilities. Cognitive dissonance theory (Festinger, 1957; Cooper, 2012) explains the mechanics off attitudinal change as a result of behavior as a way to overcome a cognitive discomfort (Elliot and Devine, 1994), as mediating action (Petty, Wegener and Fabrigar, 1997). Attribution theory (Kelley, 1973) presents the way that individual deals and accept a series of facts and selects information to confirm their already formed beliefs, in order to be in agreement with their inner feelings and a form of motivated reasoning (Kunda, 1990; Oswald and Grosjean, 2004).The model we proposed is synthetized in (Figure no. 1).



**Figure no. 1: The designed model based on the TAM model**

The following hypothesis were created:

*H1: Latent Perceived Usefulness (U) is contributing to the confirmation bias.* In the proposed model, we removed the implication of perception against attitudinal and behavioral intention from TAM. Granting causal attribution theory on how people make causal attribution, originating from social psychology. It is no argue that survey instruments, designed to capture relevant data will call the cognitive processes related to mixture of positive and negative perceptions, thus making reasonable to assume that the Rating measurement has a direct mediating effect of elements of confirmation bias (Kelley, 1973). It is valid to assume this, as we are collecting data that activates concerns and areas well perceived as understood. While theory of cognitive dissonance could contribute on attitudinal and behavioral relationships (Festinger, 1957; Cooper, 2012), we consider for this study only the causal attribution.

*H2: Latent Perceived Easy of Use (E) is contributing to the confirmation bias.* That originates also from initial TAM Model (Davis, Bagozzi and Warshaw, 1989) and the statements for H1 remains valid, while perceived benefits are not the main driver.

*H3: Perceived accessibility E is influencing perceived Utility U.* TAM original hypothesis.

*H4: Confirmation bias reflects non-TAM organizational support.* Confirmation bias construct while dependent on perception constructs is influencing the awarded measurement for the IT satisfaction related to job environment (Wright and Staw, 1999). While theory is very broad, for the paper we consider elements specific to organizational support. We already mentioned the implications of mandatory environments, as well as studies on employee trust and expectation of organizational support. During qualitative research, that was obvious so we included this element related to overall Support – Helpdesk and trust that Organization will act (Judge, Thoresen, Bono and Patton, 2001) based on their opinions (Oswald and Grosjean, 2004). Confirmation dimension was also evaluated in other TAM subsequent models with different approach from expectancy confirmation theory (Bhattacharjee, 2001).

*Methodology:* This study used a target population of 3500 employees out of 6000 total employees. A qualitative exploratory research was conducted, using specific techniques (Weigand, 2006) by conducting semi structured interviews for 30 individuals that supported construction of the conceptual model. That was the base for adapting TAM and confirmation bias constructs. Manual coding and indexing based on interview transcripts was performed. The survey instrument was based on electronic questionnaire using Likert scale with midpoint and 7 points, open-ended questions or categorical choice based responses, with a validated participation of 596 respondents. Quantitative modeling was performed using SPSS Statistics package and SPSS AMOS. The dataset was analyzed using descriptive statistics tests and processed using Structural equation Modeling- SEM (Suhr, 2006; Hooper, Coughlan and Mullen, 2008). SEM is considered a good modeling technique for confirmatory analysis or for measuring influence of latent factors, that cannot be measured directly, also called unobserved variables. The evaluation of result (Bollen and Pearl, 2013) took into account both statistical validity validation but also alignment to the theory and previous research in the field.

## 2. Results

Variables were tested for validity and reliability. Out of 596 valid responses we looked for reliability test using Cronbach 's Alpha index (0.893) that has a good value comparing to 0.7. The number of values was 19, all relevant to the case. Cronbach's Alpha if Item

Deleted Index pointed out that there is no significant value taking variables out of analysis, as no larger value than (0.893) identified, but pointed that variable z32.ActionableInsightValuesMe is important to look for (0.892). Frequency table for all variables gives acceptable data for skewness (between -1.3 and 0.9 values) and kurtosis (-1.4 and 1.5) but being between acceptable [-2/2] range (Trochim and Donnelly, 2006). Because SEM requires validation of no missing data, all case that had missing values were checked for exclusion from analysis. The Mean, Mode and Median gives initial indication on sample responses and suggest that respondents were engaged during response.

Inter-item correlation matrix gave initial evaluation of association between concepts with a maximum value of (0.785) and a minimum of (0.016), a mean of (0.305). Close to dataset maximal correlation pairs was identified between (5.AppFlow and 4.UILayout, value of 0.723), (z6.CrashFreeandz3.AppSpeed, 0.627), (z3.AppSpeedand 2.NetSpeed of0.785) suggesting that while covering close perception, employees are able to distinguish between the main cause of problems, as most of the statements balanced between negative and positive statements. Interesting pairs as (z6.CrashFree and 9.WorkstationHW , BANK-IT-Rating,2.NetSpeed orz3.AppSpeed registered close values between 0.4 and 0.627) indicates still an interesting latent variables influence , related to out tested capabilities, all originating from TAM constructs. Confirmation Bias specific variables as z32.ActionableInsightValuesMe recorded a maximal inter-item correlation of 0.376 withBANK-IT-Rating and 0.234 forz32.ActionableInsightValuesMe). A factor Analysis performed in SPSS Statistics shows that indeed there is grouping in the data that fits the theoretical assumptions, with 3 potential factors out of 5 explaining more than 35% of total Variance in Initial Eigenvalues.

The evaluated SEM restricted model explains and validates initial hypothesis as well as confirms initial assumptions on latent factors. (Figure no. 2)

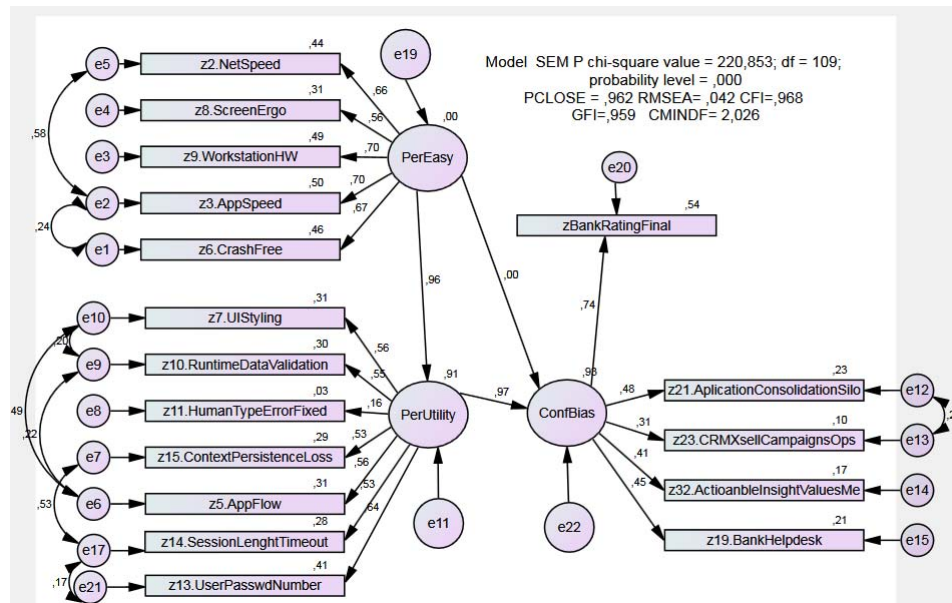


Figure no. 2: Restricted SEM Model, standardized estimates

According to SEM Model evaluations (IBM SPSS Amos, 2012), we looked for indexes as GFI, CFI, CMIN/DF and RMSEA – indices explained below. Model has three unobserved variables (PerEasy, PerUtility, ConfBias) and evaluation of strength of explanation is presented by values on arrow. We considered residual errors for all measurements, and correlation between residual. We tried to avoid correlation explicit between residuals associated to different variables, even if model improvement suggests it – but with relative small gain, by use of Modification Indices in AMOS. This is also a good evaluation of potential model improvements. Model had 109 degrees of freedom (DF) and a good accepted CMIN/DF ratio – we looked for values below 3, while <5 is still acceptable. Model validity was also evaluated against theoretical assumptions, as SEM is used in explaining how overall perceptual processes are reflected in a specific set of measurements. Confirmation Bias factor (ConfBias) included 4 observed variables including Z21 and Z23 as it was reflected during the exploratory research that there is a strong belief that bank will consolidate a series of application and CRM will change fundamentally their way of working. Values of correlations between residuals are represented on the double arrow. Largest values, also evaluated in our initial factor analysis are not surprise ( $e2 \leftrightarrow e5$  0.585) and ( $e7 \leftrightarrow e17$  0.535) teaching that easy of use dimension without utilitarian aspect has limited perceived value. Special consideration was done, modifying model to suggest that utilitarian perception in the end will better reflect in the decision process (forced ConfBias  $\leftarrow$  PerEasy regression weight Estimate to value of 0), so This regression weight was fixed at 0.000, not estimated). Correlation between residuals in Confirmation bias ( $e12 \leftrightarrow e13$ , correlation Estimate 0.204) shows that two initial evaluated separate findings could be associated within residuals and part of casual attribution. Regression weight tables confirmed that p values are significant. Alternate model (Figure no. 2) was evaluated with 108 degrees of freedom, by eliminating the 0 weight between ConfBias  $\leftarrow$  PerEasy, giving the following results that are convergent with the first one- we see slight modifications in weight propagated, but aligned with hypothesis H1, H2, H3, H4, with the following estimates (PerUtility  $\leftarrow$  PerEasy, Estimate 0.941; ConfBias  $\leftarrow$  PerUtility, Estimate 0.638; ConfBias  $\leftarrow$  PerEasy, Estimate 0.329). Model is valid, with no further modification indices signaling other exclusions.

An exploratory initial Model (diagram not included) between (Estimate PerUtility  $\leftarrow$  PerEasy, Estimate 0.929) was evaluated during exploratory analysis with same H3 validation, meaning that when PerEasy goes up by 1 standard deviation, PerUtility goes up by 0.929 in standard deviations, with a CMINDF rate of 2.802 -for the Default model, the discrepancy divided by degrees of freedom is  $67.245 / 24 = 2.802$ . Evaluation of Model Fit Indices followed the general accepted evaluation rules (Bentler and Yuan, 1999) and potential choices of evaluation (Marsh, Hau and Wen, 2004): GFI >0.9 (The GFI (goodness of fit index); CFI >0.9 (comparative fit index); RMSEA <0.1 (root mean square error of approximation); PCCLOSE >0.5 (Under the hypothesis of "close fit" (i.e., that RMSEA is no greater than .05 in the population), the probability of getting a sample RMSEA as large as RMSEA is PCCLOSE). (Figure no. 3)

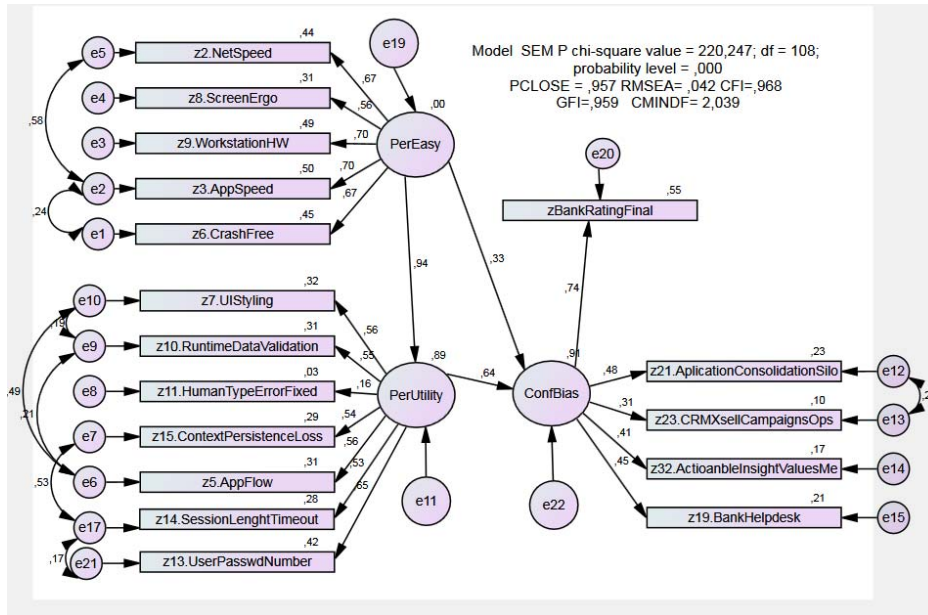


Figure no. 3: Final SEM Model, standardized estimates

**Conclusions**

The current study evaluated general theoretical aspects derived from TAM and Causal attribution theory, trying to explain how employee’s satisfaction and perception is potentially influenced by non-product or technology related functions, but rather cognitive processes derived from psychology research. That approach was confirmed by empirical evidences documented in this study and shows clear validation of hypothesis and the strength of association of the relationships. While model validity was followed, tight alignment with theory was also looked.in mandatory complex environments we can draw the conclusion that organizational support is equally important, as well as features and functions, that becomes less relevant in complex, interconnected environments, that shares or duplicates potentially functions. The qualitative research served as a strong starting point for understanding individual and organizational perspective, as well explaining a series of associations that employees were constantly addressing. The practical applicability of this approach is high due its value in explaining more than measurements related to functionalities but rather to evaluate the change management from this perspective. Future research should focus on other areas as analyzing more opinions for model improvement. Another applicability resides in evaluating the Net Promoter Score for customers, by understanding the perception of Brand and CSR as potential mediator factors over the customer experience (Kim, Hur and Yeo, 2015) or consumer perception driven research. Empirical validation of TAM hypothesis within this paper show the relevancy of this theoretical approach.

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## **IMPLEMENTING INDUSTRIE 4.0 STRATEGIES: BEYOND TECHNICAL INNOVATIONS**

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### **Abstract**

Industrie 4.0 as a concept is becoming increasingly popular in German speaking academic literature, German industrial organizations as well as in German Government. This article provides an overview of what Industrie 4.0 is and suggests a simple framework to look at and analyze its economic implications at the firm's level. While many activities are under way to deal with and solve open technical issues, comparably little focus seems to be given to installing Industrie 4.0 supported processes at the shop floor and ensuring that employees have necessary qualifications to be able to successfully operate the new systems. Finally, strategic implications of the so-called 4<sup>th</sup> industrial revolution are elaborated on. The article closes with remarks on future research opportunities.

**Keywords:** Industrie 4.0, internet of things, innovation, processes, qualification

**JEL Classification:** M10, O3, L2

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### **Introduction**

Industrie 4.0 has been launched in 2011 by the German Government as one of several high-tech initiatives to secure the competitive advantage of Germany as a manufacturing and knowledge based economy. During the Hannover industry fair in 2011 the initiative was introduced to the public (Kagermann et al. 2011). Claiming for nothing less than the 4<sup>th</sup> industrial revolution, the initiative quickly picked up pace. In April 2013 first recommendations how to implement Industrie 4.0 were published by the Communication Promoters Group of the Industry-Science Research Alliance (Kagermann et al. 2013). Since then, a national research platform called 'Plattform Industrie 4.0' has been launched by the German ministry for economic affairs and energy and the German ministry of education and research, and the associations BITKOM, VDMA and ZVEI. The platform provides a forum to join efforts to develop Industrie 4.0 solutions for the German economy. Working groups dealing with issues like standards and norms, research and innovation, IT security, legal framework, and education and training systematically drive the initiative forward. Overarching goal of the initiative is to help Germany to position itself as a major player in the digital industry to come, both globally as well as nationally.

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Initiatives similar to Industrie 4.0 have been launched in other countries like Japan (Industrial Value Chain Initiative IVC and IoT Acceleration Consortium IOTAC), the US (Industrial Internet Consortium, IIC), UK (High Value Manufacturing), and China (Smart Factory 1.0 and Internet Plus both embedded in the overarching Made in China 2025 strategy) (Kagermann et al. 2016). However, most of these, including Industrie 4.0, focus on technical aspects. So far, relatively little research has been conducted regarding the impact of Industrie 4.0 on organizational implications and competitive strategies. This article provides thoughts and recommendations in these directions.

### **Industrie 4.0 – what is it?**

For this paper we adopt the definition of Sucky et al. (Sucky et al. 2016): “Industrie 4.0 is the equivalent of the 4<sup>th</sup> industrial revolution, the next level of organizing and controlling the entire value network beyond the lifecycle of products. This is enabled by connecting Cyber Physical Systems (CPS) in Production and Logistics with the Internet of Things to a supporting infrastructure. This way all involved instances of the value chain are connected to each other, information can be provided in real-time and it is ensured that by autonomous interaction and self-regulation of all instances of the system the value adding process runs better. All these are prerequisites to enable individualized products in highly flexible (mass) production setups.” (original quote translated by authors). Cyber Physical Systems are “physical and engineered systems whose operations are monitored, coordinated, controlled and integrated by a computing and communication core.” (Rajkumar et al. 2010). Generically spoken, the Internet of Things (IoT) “refers to a global, distributed network (or networks) of physical objects that are capable of sensing or acting on their environment, and able to communicate with each other, other machines or computers” (Davies 2015). IoT together with other concepts of Digitalization will not only impact the way products are being developed and produced but also how services will be rendered in the future. Smart services will provide value to customers which, with today’s infrastructure, cannot be offered (Marquardt 2017) while knowledge intensive business services will expand into new industries, e.g. energy network consulting and management (Weber et al. 2016).

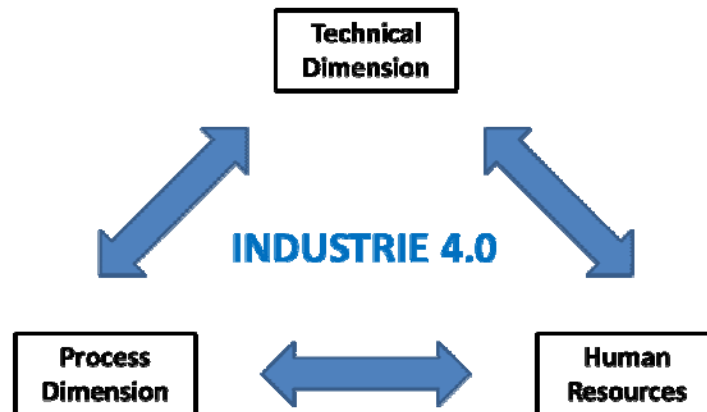
Stakeholders, business alliances as well as research and standardization bodies push the concept of IoT further, either approaching it from the ‘internet’ or from the ‘things’ perspective (Atzori et al. 2010). However, numerous technical, standardization, information security and privacy protection issues need to be resolved to allow for widespread use of IoT in an industrial context (Xu et al. 2014).

In our paper we focus on aspects beyond technical innovations. Therefore, we assume that all technical challenges have been met and that digital entities and physical devices with embedded identification, sensing and/or actuation capabilities can be linked and communicate with each other (Miorandi et al. 2012). Early real-world and test applications demonstrate that smart factories are already possible with today’s technology (Wang et al. 2016).

For our analysis, we use the framework shown in Figure 1. According to this framework, Industrie 4.0 can be described by a technical dimension (largely identical with IoT in an industrial context as discussed above), a process dimension and a human resource dimension. We will discuss the latter ones in more detail in the next two sections of the paper. Finally, we will have a look at strategic implications of Industrie 4.0.

### The Process Dimension of Industrie 4.0

With Industrie 4.0, automation will become possible for increasingly smaller batches of production (Spath et al. 2013). Vertical integration within value chains as well as horizontal integration across industries can be expected to significantly impact and drive domestic and global competition (Kagermann et al. 2016). While from a technology perspective it is important to understand and have appropriate tools to assess the readiness to implement Industrie 4.0 solutions, especially for small and medium enterprises (SMEs) (Leyh et al. 2016) too much of a concentration on the technical implementation carries the risk of missing the vision of Industrie 4.0 and hence the benefits that come with it. Industrie 4.0 is nothing less than a shift in paradigms how to set up and run not only manufacturing systems but complete value chains (Selim & Schumacher 2016).



**Figure no. 1: Industrie 4.0 Framework**

*Source: authors' contribution*

It is widely accepted that Lean Manufacturing is one key element of Industrie 4.0 (Spath et al. 2013; Frank 2014). In fact, much of what Industrie 4.0 stands for can be viewed as implementing Lean Management principles (Womack & Jones 2003) using new technologies. While the Toyota Management System, which served as the blueprint for the Lean Management approach, already considered Product Development as one of the seven key functional areas to be coordinated (Monden & Talbot 2004), Industrie 4.0 has the potential to take things yet one level further by fully integrating all Engineering activities into the value chain (Kagermann et al. 2013).

Since both Industrie 4.0 as well as Lean Manufacturing aim for continuous flow and one-piece-production it is the opinion of the authors that designing plant layouts, processes, workflows, and supporting activities can principally follow the same logic as in a “low-tech” Lean Transformation scenario (Bicheno & Holweg 2009). However, given the advanced technology required to implement Industrie 4.0 and that many projects will take place in a brown-field environment (i.e. within existing production facilities) it may be useful to follow a three step approach by: firstly developing a common understanding of what Industrie 4.0 stands for in a particular business unit, secondly identifying internal and external pre-requisites to successfully implement Industrie 4.0 and pulling together a road map, and lastly setting up and executing specific sub-projects (Selim & Schumacher 2016).

Under Industrie 4.0, raw materials, components and finished products become “intelligent” insofar that, enabled by sensors and actuators, they can send and receive information regarding their history as well as their requirements towards future production steps. Within adequately designed manufacturing layouts this allows for individual and ad-hoc, self-optimized material and production flows. Predictive maintenance supports low levels of machine downtimes, helping to stabilize manufacturing processes (Wegener et al. 2016). Based on experiences from Lean Manufacturing significant improvements in quality, delivery time and working capital can be expected (Womack & Jones 2003).

Industrie 4.0 processes will allow new business models currently not thought of. Personalized products and services at costs close to mass-production will allow new, flexible offers to commercial (B2B) and private customers (B2C) (Spath et al. 2013). Further, supported by full integration of the value chain, information flow from customers to businesses (C2B) will allow manufacturers to tailor their offers much more precisely, even those not personalized (Hüther 2016). Mass data analytics (Big Data) provides tools to extract valuable information from cloud storages to configure product offers which were not available before. Estimates quote improvement potentials to the operating margin for companies fully making use of Big Data analytics of up to 60% (Kambatla et al. 2014).

Broad-scale implementation of Industrie 4.0 technology and processes requires significant investments into infrastructure, both financially as well as in terms of required manpower. Therefore, it is highly likely that the 4<sup>th</sup> industrial revolution will be executed evolutionary (Spath et al. 2013). This causes problems particularly for small and medium-sized enterprises (SMEs) which are the backbone of Germany’s industrial sector. Getting this group integrated into global value networks requires the design and implementation of comprehensive knowledge and technology transfer and best practice sharing (Kagermann et al. 2013). For Germany, the internet platform Industrie 4.0 ([www.plattform-i40.de](http://www.plattform-i40.de)) has been launched by the German ministry for economic affairs and energy and the German ministry of education and research to support such sharing of knowledge.

#### **The Human Resource Dimension of Industrie 4.0**

Smart factories will still need humans to run them (Hirsch-Kreinsen 2013). Direct and indirect production tasks as well as planning and execution will diffuse with Industrie 4.0 technologies and processes being implemented (Spath et al. 2013). Traditional automated manufacturing systems with clear distinction between humans and machines and centralized controls will be replaced by cooperative work-systems consisting of people, machines, robots, and IT-systems. One key aspect in such systems is to develop and provide new approaches for learning to enable required process innovations (Welter et al. 2016). Approaches to structure learning content according to the degree of formalization, specialization and job complexity of specific workplaces have worked well in relatively stable production environments, where main focus was to train people for a particular job on the line. For Industrie 4.0 set-ups, structured and unstructured learning-by-doing or learning-by-observing will have to be complemented by IT supported learning tools (like head mounted displays) who provide on-site, context-sensitive information and allow the user to simulate consequences of possible action alternatives without having to go through a physical and potentially costly trial-and-error process (Mühlbradt 2015).

However, in order to educate or train their staffs for Industrie 4.0, management first has to understand what qualifications are required for employees to fulfill their current and future jobs. Generally speaking, qualification can be viewed as acquiring competences in the four

areas (Hecklau et al. 2016): 1) technical competencies (job-related knowledge and skills), 2) methodological competences (skills and abilities for general problem solving and decision making), 3) social competencies (skills, abilities and attitude to cooperate and communicate with others), and 4) personal competencies (an individual's personal values, beliefs, and motivations).

There is general agreement in the literature that qualification requirements in Industrie 4.0 production systems are highly context specific. However, driven by the high level of automation and the interaction between humans and machines to run complex, IT-controlled production processes, following job elements and corresponding competencies will become more important in Industrie 4.0 scenarios (Ahrens & Spöttl 2015): 1) interaction and collaboration of shop-floor employees with engineers and other experts to design Industrie 4.0 products and supporting software, 2) analysis of work-processes, 3) adaptation of pre-configured software to company-specific requirements, 4) communication into other areas of the organization, e.g. logistics and accounting, 5) software installation and integration into existing networks, 6) physical implementation of Industrie 4.0 systems (hardware) and processes including training of employees, 7) maintenance and optimization of IT-hardware, 8) data management (esp. handling of error messages), and 9) control and optimization of (logistic) processes.

Jobs with no or low qualification requirements (like machine operators) will become less important because they can be substituted by automated processes (Weber 2016). However, also in the future, there will remain manual or physical activities in the value chain that cannot be automated, either for technological or economic reasons (Spath et al. 2013). Jobs with medium qualifications will continue to be required but with different qualification profiles. Their main roles will be to oversee automated processes and get involved in case of problems. This aspect will become important in both initial as well as ongoing vocational training (Pfeiffer et al. 2016). One challenge to be addressed in this context is that in highly automated systems operators are relatively distant from the manufacturing steps which will make it more difficult to build up experience based knowledge to cope with non-routine issues in the production process. This is no new topic and was already raised during the 3<sup>rd</sup> industrial revolution as "ironies of automation" (Bainbridge 1983): operators of highly automated processes lose valuable cognitive expertise, required to solve non-routine issues, e.g. machine breakdowns. Relatively undisputed is the expectation that, driven by technological and system complexity, university educated positions will increase (Weber 2016). Overall, it can be expected that abilities to understand processes and abilities to solve problems in such processes will become more important in smart Industrie 4.0 factories (Hirsch-Kreinsen & Weyer 2014).

One approach to train employees in what are somewhat diffuse and highly context specific Industrie 4.0 skills is to simulate the conversion of low-automated or single-purpose-automated manufacturing environments to smart automation systems in so-called learning factories (Prinz et al. 2016; Blöchl & Schneider 2016). Another vital way may be to take the concept of blended-learning in higher education (Alammary et al. 2014) and apply it within a production context (Brosda et al. 2016). Going in a similar direction is to use augmented reality for initial and ongoing qualifications (Guo 2015).

To summarize, working on the right qualifications of employees who design, run, maintain and improve smart Industrie 4.0 production processes will be key critical for the success of such initiatives. We are only at the beginning to fully understand what this will require from leaders in Manufacturing and Human Resources.

### **Strategic Implications**

While it is frequently mentioned that Industrie 4.0 will allow new and significantly different business models (Spath et al. 2013; Kagermann et al. 2011) only few publications explicitly raise the issue of integrating Industrie 4.0 with corporate strategy (Selim & Schumacher 2016; Hirsch-Kreinsen & Weyer 2014). This is somewhat surprising, given that the competitive landscape is likely to be mixed up significantly.

From a strategy formulation perspective, Porter's concept of sustainable competitive advantage defines three base strategies (Porter 1985): cost leadership, differentiation or focusing on a niche. Industrie 4.0 as a value creation concept has the potential to bring these core strategic positions much closer together, thus eliminating much of the comfort zones many companies make solid profits in.

With the ability to produce very small batches at close-to-mass-production cost large companies will break into niches they had previously decided not to address or weren't able to compete in because of high change over cost in conventional mass production systems. Niche producers are likely to suffer from this change in competitive focus.

By the same token, cost leaders in industries with physical flow production (not so much Chemical, for example) will likely lose a substantial portion of their competitive position. Differentiators will be able to match or come close to a cost leader position without losing their differentiation potential. While some cost leaders may be able to benefit from the possibilities to increase their level of differentiation by including personalized elements in their products, the authors view it more likely that differentiators will use Industrie 4.0 processes and technology to improve both their offer flexibility as well as their cost base. Cost leaders are likely to suffer from this change in competitive focus.

In any event, before starting to execute Industrie 4.0 initiatives, companies should test and, if required, adopt their business strategy in line with new opportunities, like additional services, new products or new markets to be served, as well as (competitive) threats that can be expected to show up in current markets by competitors which vertically or horizontally expand their value chain. From an implementation perspective, Industrie 4.0 strategies are very challenging. This is because strategy implementation has a task-oriented dimension - basically pulling together a plan, provide sufficient resources and monitor execution - as well as a behavioral dimension - making sure that people impacted by the change, accept and support the initiative (Kolks 1990). From a task-oriented perspective, Industrie 4.0 initiatives are complex projects, likely to impact the entire value chain of a company. Planning and managing content and execution of such a project is a challenge in itself.

However, in the behavioral dimension, it is important that people are both willing and able to act in line with their newly defined roles and responsibilities. Otherwise, motivating managers and employees to act as organizationally desired, will be very difficult to achieve (Porter & Lawler 1968).

### **Conclusions**

Industrie 4.0 has the potential to change the way how business is going to be conducted in the future. While its roll-out will take some time and the competitive landscape will not change overnight, the rules of what drives industrial economic success will have to be adapted if not re-written. The authors suggest a simple framework of how to look at and analyze implications of Industrie 4.0. Numerous activities to develop and deploy required technologies are under way. Governments, large corporations, universities and research



organizations drive this process with increasing momentum in many industrialized countries. However, little knowledge is available as of today how companies, especially SMEs, are supposed to approach this topic within the context of their strategic management activities.

While learning factories and knowledge platforms may help to solve the process issue of implementing Industrie 4.0 at the individual enterprise level, the authors recommend to study and develop guidelines which help companies to deal with the strategic dimension of the phenomenon. Even more important may be what kinds of qualification do employees in Industrie 4.0 production systems need to have, how do these compare to what is available in today's workforce, and what needs to be done to close the gap.

This paper gives some first ideas regarding the challenge. More research is required to provide answers that can be executed in real life situations.

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## THE IMPORTANCE OF A WELL DEFINED CORPORATE GOVERNANCE

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### Abstract

Present day discussions of corporate governance are mainly centred on finance related issues, stakeholder management, and leadership. In a broader view the definition of Governance varies nowadays and is used in several meanings as e.g. corporate governance, organizational governance or business governance. The objective of the paper is to identify and discuss the key criteria to ensure a well-defined corporate governance. The methodology used involves interviews with 40 managers and company leaders from global acting medium sized manufacturing and service companies in order to gather information about the key elements of a corporate governance and the issues they are facing on an operating level with their corporate governance. The key elements are applied in a case study in order to understand which the main components to define the corporate governance are. The results show that the principles for corporate governance are the right one, the implementation, monitoring and review is more than important to have a stable and well defines corporate governance in place.

**Keywords:** Corporate governance, Accountability, Stakeholders, Responsibility, Medium sized companies, Ethical behavior

**JEL Classification:** M14

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### Introduction

Globalization in a broader view fundamentally changes the operating conditions especially of global acting multinational companies. Due to the increase of international trade and the foreign direct investment, the influence of transnational corporations is growing and the velocity of circulation of money is accelerating and financial markets are gaining the momentum. (Scherer, et al., 2008) As a result of these changes the corporate governance of multinational companies is getting more complex and has the need to be well defined from the financial business perspective, as of the sustainable perspective. Companies are global acting and facing complexity e.g. in terms of increasing number of stakeholders, different business cultures, diverse laws and regulations in the operating countries.

The concept of governance exists since any kind of organization exists. Of course it was not written down or used in a structured manner, but it exists since companies are operating. (Crowther D., et al. 2011) Each company needs to be successful and an understanding how they run the decision making processes within their organization.

To have a well-defined corporate governance, it is also important to take into account the organizational structure. The governance needs to implement well and supported by the organizational structure as this could be a functional, geographic, product, customer segment, channel or process based organizational structure. For each type of organizational structure the governance should work well. (Lange et al., 2016)

### **1. Theoretical aspects: The principles of corporate governance**

The Principles of Corporate Governance are defined by the OECD. In this chapter I will explain the principles from the theoretical background of each aspect. The definition of corporate governance by ISO FDIS 26000 is the understanding by which the organizations makes decisions and implements the decision making rules, process (e.g. RACI) and committee structures. To ensure that an organization is well performing it need an implemented corporate governance. (Crowther D., et al. 2011)

#### *I. Right and equitable treatment of Stakeholder*

The importance is that the stakeholders feel involved. No-one along the governance process should feel excluded as this could cause problems at the interfaces along the governance process and in addition could cause deep content based discussions and rise corporate culture issues. An organization should also respect the rights of the stakeholders. This can be supported by an open an effective information and communication cultural. Along the process to treat shareholders appropriate, effectiveness is relevant too. Effectiveness is the ratio of the achievement of the planed purpose or milestones. Thus for effectiveness it's necessary that the processes work well along the planed content, interrelations, interfaces, responsibilities and timeframe. The resources must be used as well in a sustainable way that the efficiency continues along the planed timeframe. Furthermore, from a sustainable perspective the stakeholders have an interest in the development of the organization possibly down to an activity level. In some cases stakeholders want to shape the activities, but this depends on the rights and level of influence of the stakeholder. (OECD 2015)

#### *II. Interest and accountability of other Stakeholders*

Organizations needs to recognize that they have legal, social and market driven obligations to stakeholders, e.g. employees, investors, creditors, suppliers, regional communities or network, customers and government bodies. Interest of other stakeholder needs to be reflected or designed as well from the perspective of accountability in the context that actions taken by the organizational stakeholders effects the external environment. (Clarke T., 2007) Therefore needs to be clear responsibilities in place to know who the owner of the task and activity is. Furthermore to know who is the decision maker on that and who is performing this activity. This should be performed also in a sustainable form. Which implies that the responsible person which acts should however not use more resources to perform than can be regenerated. (Aras & Crowther, 2007) According to ISO 26000, accountability is the state of being answerable for decisions and activities to the organizational governing bodies, legal authorities and other stakeholder. To be accountable

means to be able to proof anytime for what you are responsible for. The company is not isolated from the external network and this is also proofed by the accountability to take ownership for specific activities. Taking accountability does also mean to reflect the impact of the activities and if the result is negative to be able and agile to not repeat a negative activity in a broader view. (Jones C., Hesterly W.S. & Borgatti, 1997)

### *III. Role and responsibility of the board*

The board of management needs relevant skills and understanding to review and steer management performance. It also needs effective size on an appropriate level of independence and deep commitment to the organization and decision making process. Participation is a need to get the rule of law and other principles implemented and used. The stakeholders involved should participate and work well within the defined governance structure. For that reason participation is an essential principle. Depending on the size and structure of the organization participation can be either direct or through legitimate intermediate institutions, for example in the case of a national government or parliament. (OECD 2015) Responsiveness follows aligned in the logical structure of Rule of Law and Transparency. That means that the people of the board are aware of their role and responsibility within an end-to-end governance process to get the process implemented and working within the committed timeline and milestones along the process.

### *IV. Integrity and Ethical Behavior*

Integrity as a fundamental requirement for board members and key decision makers. In organizations there should be a code of conduct accessible for any stakeholders, which are designed for their directors and executives. This enables integrity by written consent and agreement and supports an ethical mindset and a responsible decision making. This follows logically the transparency principle. These rules must be enforced impartially without misusing power of relationships. To be clearer, this mean e.g. rights of minorities needs to be respected anyway and without compromise. To secure this an independent party of conflict resolution (might be a role or a committee). (OECD 2015) Not all the regulations in force are needed to define a good governance, this is always to be seen in the context of the specific organization, the sector where the organization is operating and the geographical aspect e.g. country specifics and regulations (e.g. related to religions, power concerns, culture).

### *V. Disclosure and Transparency*

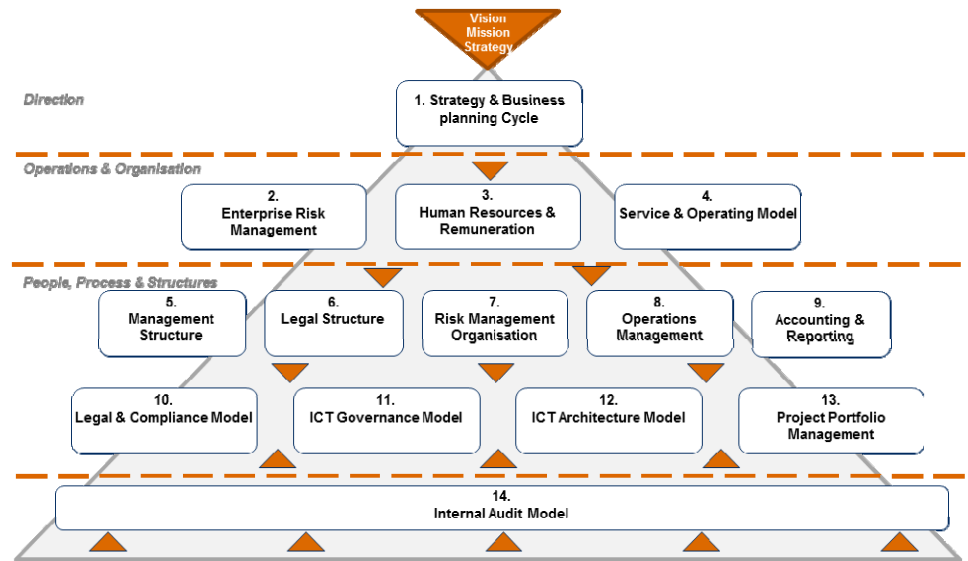
Disclose refers to the access to important information for the defined group of stakeholders which required these information and reports. Transparency is a key principle that all information in the content of the business and roles is accessible, available and updated. Furthermore the decisions which the Stakeholder will take must follow over all rules or so named corporate guidance. This needs to be reflected as open source and needs to be compliant. Transparency on the other hand doesn't mean to reveal proprietary information – this would cause conflict of interest for the organization. (OECD 2015) For example privileged information which is sensitive from a data security, commercial, legal and personal point of view should not be assessable or only assemble to a well-defined focus group.

**2. Research methodology used for assessment of organizational governance structure in medium sized companies**

From October 2016 until January 2017 we have conducted 40 interviews in global acting medium sized manufacturing and service companies with a structured questionnaire on the topic of corporate governance to figure out the what works well and also the concern and issues to get a conclusion what would be necessary to well defined corporate governance in place. Four questions to rate from 1 (excellent) to 5 (low) these questions which reflects on one of the principles. Furthermore there were two open question asked. The interviewees came up with interesting answers, which can used as a trend and should be more evaluated in the future on these outcomes.

Based on the company profile we drew a governance pyramid as an easy understandable example how in a company the corporate governance structure could look alike. In that case it's an example of a multinational service company. All is starting with the Vision, Mission Statement and the Strategy of a company. After that there are typically three layers where you can point out the level of accountability and decision making in an organization. The first layer is about diving Direction: That means key processes, focus of the organization and steering is structured on that layer. The second layer is about operations and organization. On that level is the operating model defined and the overall way of working within the organizational and there interfaces. (De Vries M., et.al. 2011) The third level is about people, processes and structures. After the definition of the operating model it is necessary to define in detail the processes within the model and the structure, the functional model of a company. In the figure there are highlighted some key elements which have only the character as an example. The fundament, let's say the baseline is the internal audit model which is presented as the authority board to prove that the organization is operating along there governance principles.

**3. Results**



**Figure no. 1: Governance model – as a practical example**

Based on the principles of the corporate governance, which were presented in chapter 2 the introduction and methodology we asked the interviewees 6 questions. 4 out of 7 questions we asked the interviewees to rate the answer from 1 to 5. Where 1 means (excellent/ highly agreed) to 5 (bad/low level of agreement).

Question 1: Which are the main points, in terms of the principles which a good corporate governance will address?

Answer to Question 1: Most of the interviewees came out with the conclusion that a good corporate governance will address efficient and effective management, creating sustainable value, ways of achieving the firm’s goals, increasing stakeholder satisfaction, increasing credibility, ensuring efficient risk management.

Question 2: In your company how would you scale the “right and equitable treatment of stakeholder” from 1 to 5.

Answer to Question 2: The outcome is by 3.5. The interpretation of this number means that the treatment of stakeholders is not equitable enough from the opinion of the managers we asked. This could be because of the different conditions and expectations of the stakeholders in terms of the level of involvement.

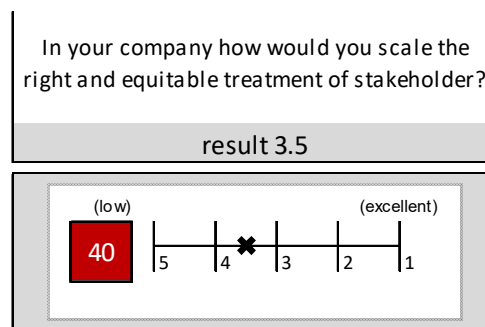


Figure no. 2: Interview results: Outcome of Question 2 – Source: authors

Question 3: Are the interests and accountability of other stakeholders well reflected in your corporate governance?

Answer to Question 3: The outcome of the question is rated to 2. This can be interpreted that the interests and accountability is clear, documented and working well within the corporate. That means the ownership of tasks and activity is defined and interpreted in the right content by the people involved in the governance process.

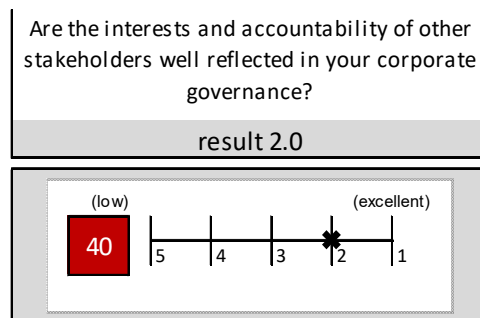


Figure no. 3: Interview results: Outcome of Question 3 – Source: authors



Question 4: Do you have well defined governance in terms of role, hierarchy and responsibility of the board implemented in your organization?

Answer to Question 4: The outcome of question rated by 2.5. This means it is acceptable rated there are some disagreements but also on the other hand more agreements that the hierarchy and responsibility is clear and logically. But again with doubts in terms of definition of the right roles and bringing the right people within the organization into responsible positions.

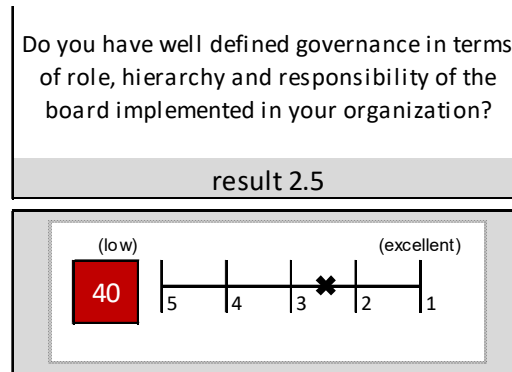


Figure no. 4: Interview results: Outcome of Question 4 – Source: authors

Question 5: Are you convinced that the corporate governance is used from the day to day perspective in an ethical way?

Answer to question 5: The interviewees have a skeptical view on that point. Ethically it is rated only by 4. Because they see a clash of interests in which the ethical way is not sufficient reflected on the governance. That means that it's sustainable and in terms of diversity and respectful approach of minorities and diversity of genders.

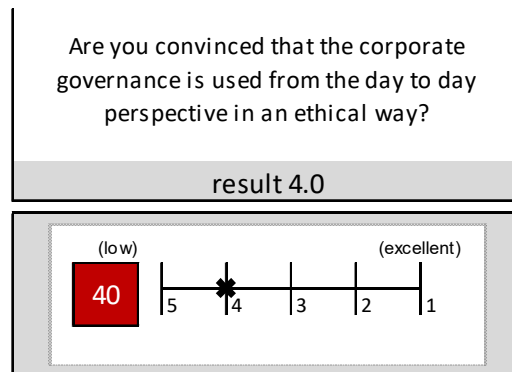


Figure no. 5: Interview results: Outcome of Question 5 – Source: authors

Question 6: Is the level of disclosure of information and transparency appropriate to your expectations on a well-defined corporate governance?

Answer to question 6: This is rated by 2, which is a high good level of agreement. This can be interpreted as the managers have access to the information, its transparent and the know how to use the information which they get from the board of management content and direction wise.

Further open question (no scaling answer): What would be a proper approach to set-up a different than these five principles described in chapter 2?

Answer: One of the main argument is to implement a rolling review and adoption of the governance principles. In addition the managers pointed out that there should be a clear assessment on the corporate governance and defined timeline on that - once in a while - to make sure that the principles are still well implemented, used and interpreted on a proper sustainable way and reflected in the organization. The interviewees did not doubt on the defined principles that these are the right one, but they came out with answer e.g. in terms of more reviews, regulations and higher level of transparency within the processes and measurements for improve of the current corporate governance in place.

To interpret the question on the authors figure 1 – Governance model. We can see 4 different level of hierarchy within this organizational structure. The direction is done by the strategy and business cycle process. The next level is the operations part of the companies let's say in other words the delivery center of the organization. The third level of “people, process and structures” is the support part of the organization. Let's say the third level used the guidance of the second to run the business on a support and structure level of activities. The audit model builds the fundament for this organization. To analyze the outcome of the questionnaire on that figure we can summaries that the roles and responsibilities are clear and implemented. From the ethical perspective this is an issue. Furthermore the manager response on the questionnaire is also that the implementation and review on the corporate governance should be performed on a regular basis. Review and adopt the corporate governance and allow transparency on the changes. In the figures above we can see that when an operations or process department changes or the responsibility changes this need to be structures and monitored in the corporate governance. It's also key to have a good risk management in place which is crucial to be part of the corporate governance (internal audit or risk management).

For further Risk management is correspondingly align with the business strategy, objectives, and key milestones. The key objective is to recognize critical situations in corporate activities at an early stage, to avoid those risks or mitigate them to reduce or minimize the effect of the risks. (Heinemann, et al 2016) It's also important for the process interaction management to have a stable and transparent corporate governance in place. Stability and transparency is important for the different level of processes management until the activity level as dysfunctional interactions between processes can have an important negative impact e.g. on the companies finance and development. (Mateescu, et al. 2016)

### **Conclusions**

A well-defined governance is essential for a good over-all corporate performance. One of the perspective of corporate performance is that of stewardship and thus as the management of an organization is concerned with the leading of the financial resources of the organization, the management of the organization is concerned with the resources of society as well as the resources of the organization.

Again, the conclusion is that the corporate governance needs not only be defined, it needs to be implemented, adopted, reviewed frequently and if necessary after the review there should be changes on the structure aligned with the overall corporate strategy and vision. Future research activities will be focusing more in the corporate governance well connected with the risk management and integrated into all management processes, this will be better linked.

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## MANAGEMENT PRACTICES IN NEW CREATIVE INDUSTRIES

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### **Abstract**

This paper aims to outline the results of a study in small and medium enterprise from creative IT industry. The study aims to examine how decision-making and management practices it changes in the context of organizational change generated by innovation. The results lead to the conclusion that managing the process of change through innovation among employees leads to resistance and high pressure on decision-making and management practices which have an important role in the successful implementation of these changes and generation of results.

**Keywords:** Management; creative industries; innovation; human resource

**JEL Classification:** M10; O3; M12; O15

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### **Introduction**

IT creative industry is one of the youngest and fast growing new media sectors (Cadin and Guerin, 2006). However, the presence of creative industry IT on decision makers' agenda remains scarce, in Romania or elsewhere (Chatfield, 2010). In Romania this industry is populated with a large number of small and medium enterprises and only a few big players (Ceptureanu E.G. et al., 2015a). Support for the sector by governmental policies led to the emergence of new actors on the market, but survival rates of business remains low (Ceptureanu E.G. et al, 2015b). Surviving firms remain vulnerable to hostile takeovers by major players in the market, a trend that also characterizes the high-tech SMEs in general. We tend to agree with Ceptureanu E.G. et al (2017) who consider that volatility of the industry's small businesses, and their reluctance to scale up, remain critical issues for policy makers, in particular in Romania where the availability of high value employment is linked to educational shortages.

During the time, the literature has shifted from efficiency to innovation in order to generate profit and business success (Bilton and Cummings, 2010). Changes in markets and competition between multinational corporations have increased the pressure on SMEs to focus on innovation, innovation capabilities and management (McAdam et al., 2004; Ceptureanu S.I. et al, 2016). Technological and scientific developments and shortening product lifecycles have generated a particular innovation imperative for SMEs (O'Regan et

al., 2005). Recent studies suggest that the SME sector in lack innovation management (O'Regan et al., 2005) or finds innovation management a challenge (Bessant et al., 2005).

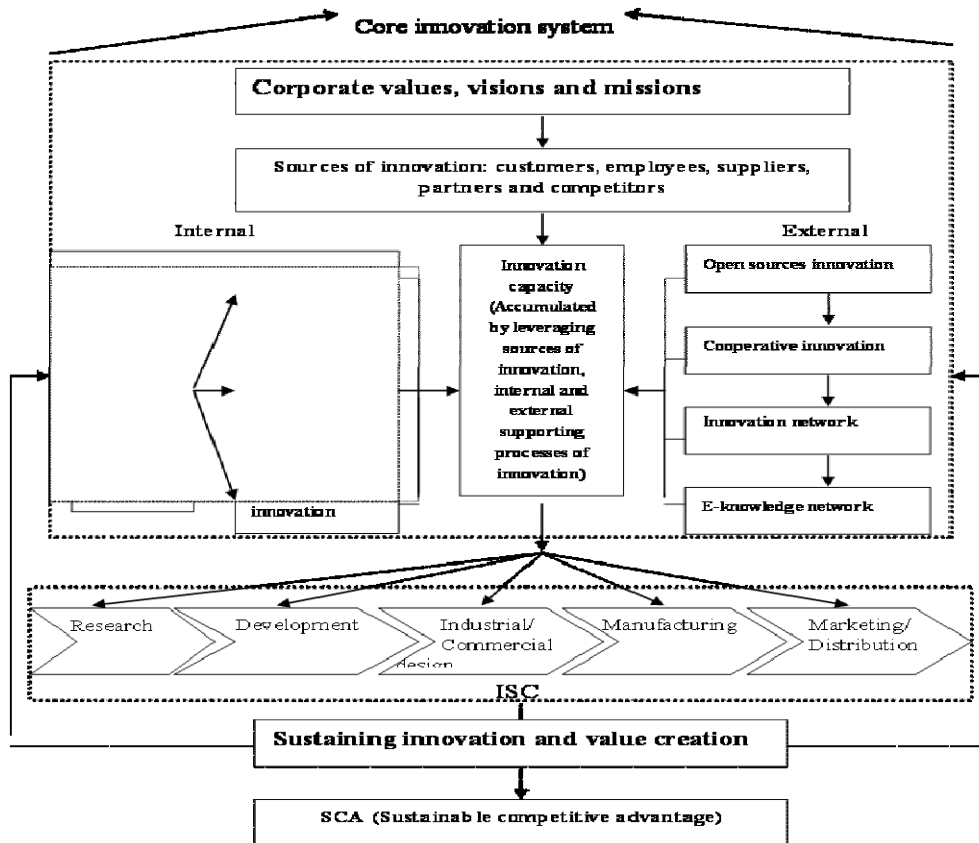
### **Impact of innovation on SMEs**

The literature regarding SME innovation shows a range of specific biases (Edwards et al., 2005), for instance emphasis on determinants of innovation efforts and results (Bessant et al., 2005) and a disposition to provide generalised management guidance (Radu AnaMaria-Catalina et al, 2017). Thus, factors facilitating or impeding innovation have been related to external and internal, structural and resource factors and their possible correlations.

Industry structure and lifecycle stages also impact on innovation and business growth (O'Gorman, 2001). Internal variables include resources such as management capability, expert skills, time, internal funds and knowledge systems (Delahaye, 2005) or organisational variables including structures, cultures and leadership (O'Regan et al., 2005). At the micro level of analysis, owner's orientation towards innovation is identified as determinants (Macpherson et al., 2004). High technology entrepreneurs' reluctance to engage in development has given rise to a dilemma (Chaston, 2008), resulting in inadequate exploitation of innovation and growth opportunities. This has been of concern for some time, but for creative industries businesses there is an added dilemma (Rae, 2002).

Innovation management literature, mostly adopting a functional perspective has remained largely prescriptive and based on first linear conceptualisations of innovation as staged, predictable sets of activities. These can be planned, managed and monitored from idea inception to commercialisation, if supported by effective knowledge and IT systems, and project based management systems. In this respect, Te Fu Chen (2007) develops a model of innovation for high-tech SMEs (especially for creative industries) – figure no. 1.

An important issue regarding innovation is represented by barriers to innovation. Where these are explicitly highlighted as a management task, they tend to be conceptualised as challenges arising at the start of the innovation process and to that extent as challenges that can be eliminated through management intervention. Where barriers are conceptualised in terms of dualisms such as those between artistic, creative or expressive interests of innovators and corporate or commercial interests of entrepreneurs, a negotiation-based brokering approach to management is recommended (Bilton et al, 2010). How precisely these generic approaches are to be realistically transferred to the SME context or to what extent they are applicable or need to be modified remains to be examined (Edwards et al., 2005) as does the question whether SMEs in different industry sectors require different cluster of innovation management routines (Tidd, 2001). Paradoxically, despite the recognition that SMEs seem particularly well suited to generating breakthrough innovation (Delahaye, 2005), and despite consistent efforts of policy makers to support innovation in SMEs, knowledge about how SMEs innovate has remained unclear (O'Regan et al., 2005).



**Figure no 1: An Integrated Model Of Knowledge-Based Innovation For High-Tech SMEs**

*Source: Te Fu Chen (2007)*

### Methodology and findings

In order to form an overall picture on SMEs in Romania, knowing the nature of innovation activities carried out under these has a special significance. The research revealed that innovation efforts in SMEs focused mainly on new products (40.22%), new technologies (22.94%), managerial and marketing approaches (22.37%), upgrading computer system (4.97%), and human resources training (4.97%). Also point out that one in four companies is recorded absence innovative approaches (26.39%). It should also be noted that there is a positive trend over the previous year - decrease by 11.26 pp the share of SMEs indicating no concerns innovation (a reduction of approx. 43% compared to 2015). From a structural perspective, we find the following significant changes: (1) increasing the share options from new technologies (6.49 pp), new products (2.99 pp) and managerial and marketing approaches (2.86 pp) and (2) reduced propensity to invest in upgrading the computer system (-2.62 pp).

Analysing the innovation efforts of SMEs according to age them, we find out that:

- There is a positive correlation between age SMEs and frequency this indicates the informatics system modernization: a rate of 5.67% of firms over 15 years showed this option - 1.73 times high (2.82 pp) compared to the corresponding newly established organizations;
- Start-ups component involves higher rates of SMEs indicated concentration of innovation efforts training of human resources (5.24%) and lower percentages of mentioning the new technologies (19, 13%);
- 5-10 years companies are characterized by high frequencies in among companies to address managerial and new marketing (26.41%) and lowest for entities that have mentioned new products (37%);
- Enterprises 10-15 years recorded higher percentages entities showing new products (42.53%) and technology (31%);
- Businesses for over 15 years recorded lower percentages of organizations indicated managerial and marketing approaches we (16.61%) and training of human resources (4.42%);
- Companies that have shown the absence of innovative approaches are found more frequently among entities of 5-10 years (28.14%) and less frequently among those aged 10-15 years (22.51%).

Considering the territorial affiliation small and medium note the following main elements:

- Companies focused on new technologies are found frequently among entities in South West (35.97%) and less frequently among the Northwest (8.84%);
- SMEs indicated focusing efforts on innovation achieving new products have higher rates for organizations in the South (53.82%) and lowest among those in the North West (16.02%);
- Organizations that have scored new records management and marketing approaches higher percentages among SMEs located in the North West (44.20%) and lower for those in the Southeast (7.22%);
- Businesses that highlight the innovative potential of the computer system modernization recorded higher frequencies of entities in North East (9.62%) and much lower in terms of firms in the Central region (1.90%);
- SMEs mentioned human resources training have higher rates for organizations in the North West (8.84%) and lowest among those in the Center Region (2.53%);
- Companies that have shown the absence of innovative approaches are found more frequently among entities in South West (31.35%) and less frequently among the Southeast (21.65%).

Given the impact of size on the efforts of innovative firms was observed following significant ways:

- There is a positive correlation between the size of SMEs and the frequency with which they show new products, new technologies, modernization and training of human resources information system;
- There is a negative relationship between the size of companies and their propensity to direct its efforts towards new approaches to innovation management and marketing, registering a 13.04% frequency for medium organizations - 1.60 times lower (-7.81 pp) to their relative small entities and 1.78 times lower (-10.17 pp) compared to the micro enterprises;
- The percentage of firms that indicated the absence of innovative approaches is

negatively correlated with the size of SMEs: 28.77% of micro not undertakes innovative actions - a rate of 1.49 times higher (9.46 pp) compared to their relative small entities and 2.84 times high (18.63 pp) compared to the medium organizations.

Analysis of SMEs in Romania by legal form shows following essential elements of the nature and specific innovation activities undertaken by them:

- Joint stock companies recorded higher rates of SMEs indicating new technologies (46.88%), modernization information (18.75%) and training of human resources (9.38%) and lower shares of the mentioning new products (34.38%) and management and new marketing approaches (15.63%);
- LLCs are characterized by high frequencies among organizations and focus efforts on new approaches to innovation management and marketing (22.91%);
- Other enterprises with legal form recorded higher percentages of entities mentioned new products (43.62%) and lower frequencies of companies that scored new technologies (14.09%), upgrading the computer system (3.36%) and human resources training (2.68%);
- Companies that have shown the absence of innovative approaches are found more frequently among entities with different legal form (34.90%) and less frequently among joint stock companies (12.50%).

Examination of the innovation activities of SMEs by industry reveals the following key issues:

- SMEs indicated that focusing efforts on achieving innovation of new products have higher rates for commercial organizations (48.42%) and lowest among those in tourism (23.26%);
- Organizations who scored new records management and marketing approaches higher percentages among SMEs transport activity (47.22%) and lower for those in Manufacturing (17.14%);
- Companies which focus on new technologies mentioned are found more frequently among entities in construction (28.36%) and less frequently among transport (13.89%);
- Organizations modernization highlights the innovative potential of the computer system records the higher frequencies of entities in the industry (7.62%) and much lower in terms of companies working in tourism (2.33%);
- SMEs that have mentioned human resources training higher rates for organizations of transport (8.33%) and lower among those in the trade (2.97%);
- Companies which indicated the absence of innovative approaches are found more frequent among tourism entities (46.51%) and less frequently among the transport (22.22%).

Analysing innovation efforts envisaged by SMEs according to the performances obtained by them in 2016 compared to 2015, highlights the following:

- Organizations who achieved much better performance is characterized by higher rates of SMEs indicating new products (58.82%) and technology (58.82%) and lower percentages of those who mentioned approaches management and marketing we (11.76%) and modernization science (2.94%);
- Companies with better outcomes evidenced by increased frequencies among businesses aimed at training human resources (11.48%);
- Enterprises whose results have stagnated recorded higher percentage of firms mentioning the new management approach and marketing (24.63%);



- Companies who recorded weaker economic performance recorded weights organizations that scored low technology (15.34%) and training of human resources (2.19%);
- Organizations who achieved much poorer results imply percent entities increased focus on modernization information (11.25%) and lower frequencies of companies that scored directing efforts in the area of new product innovation (25%);
- There is a negative correlation between SME performance and frequency that they indicate the absence of innovative approaches recorded is a frequency of 5.88% for companies with more results good - 4.65 times lower (-21.44 pp) than those who stagnated and 7.02 times lower (-35.37 pp) compared to firms performing much weaker.

The distribution of our research results in terms of the intensity of investment in product innovation, process and organizational includes the following elements: 39.26% of SMEs have not allocated resources for innovation, while 60.74% of companies dedicated to innovation at least 1% of total investment, 36.01% - more than 6%, 13.38% - 11%, 6.76% - more than 21%, 2.74% - over 51% and 0.57% of organizations have allocated more than 76% of the total innovation investments (Figure 11.3). If we refer to point at each interval corresponding frequencies recorded on investments innovation, distinguish an inverse relationship between the intensity of the investment and the share of SMEs that fall in that range. Thus, 24.73% of business innovation allocate 1-5% of the total investment, 22.63% - between 6% and 10%, 6.63% - between 11% and 20%, 4.02% - from 21 % and 50%, 2.17% - from 51% to 75% and 0.57% of companies dedicated to innovation than 76% (Figure 11.2). It should also be noted that a slight positive trend over the previous year - decrease by 5.67 pp the share of SMEs that have not allocated resources for innovation. This evolution is doubled by a qualitative transformation that is very explicitly highlighted that the number of SMEs Innovation direct over 76% of the total investment increased 2.66 times those allocated 51-75% - of 1.83 times and 6.10% - 1.35 times (5.85 pp).

Grouping firms by area of activity, highlights the following key elements for the share of resources allocated to innovation in total investments:

- SMEs that have indicated that they have not allocated resources for innovation have higher rates for transport organizations (55.81%) and lowest among those in tourism (33.33%);
- Companies who said they allocate 1-5% of the total investment is more frequently found among commercial entities (27.09%) and less frequently among construction (19.40%);
- Organizations who scored a record level of 6-10% higher percentages among SMEs in tourism activity (41.67%) and lower for the transport (11.63%);
- Companies highlights 11-20% higher frequencies recorded for entities in the industry (9.52%), while no entrepreneurial tourism and transport did not indicate this option;
- SMEs that were targeted for innovation 21-50% own shares higher for trade companies (5.01%), and no manager Tourism has not opted for this option;
- Companies who said they allocate between 51% and 75% are in May frequently among entities of transport (6.98%) and less frequently among the construction (1.49%);
- Organizations who have invested over 76% of the total recorded higher percentages among SMEs working in the construction (2.99%), while no enterprising in industry, transport and tourism did not indicate this option.

### Conclusions

This paper aims to contribute to our understanding of management practices in SMES from creative industries (Yin, 2009). We find out that in terms of innovation efforts of SMEs-age, there is a positive correlation between age SMEs and frequency this indicates the informatics system modernization; start-ups component involves higher rates of SMEs indicated concentration of innovation efforts training of human resources and lower percentages of mentioning the new technologies. In terms of impact of size on the efforts of innovative firm, there is a positive correlation between the size of SMEs and the frequency with which they show new products, new technologies, modernization and training of human resources information system and a negative relationship between the size of companies and their propensity to direct its efforts towards new approaches to innovation management and marketing. Regarding legal form of organization, joint stock companies recorded higher rates of SMEs indicating new technologies, modernization information and training of human resources.

Regarding innovation activities of SMEs by industry, SMEs indicated that focusing efforts on achieving innovation of new products have higher rates for commercial organizations and transport and lowest among those in tourism and manufacturing;

The results suggest that management practices designed to support the development of SMES by innovation are closely related to organizational capabilities. Our paper presents some limitations in order to fulfil academics expectations regarding innovation and innovative SMEs (Patton and Appelbaum, 2003). For instance, we need to expand our sample and to extend the insights into practices of innovation management in the creative industry.

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## LITERATURE REVIEW ON INTEGRATED MANAGEMENT SYSTEMS

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### **Abstract**

This paper aims to present a broad overview of the most important theoretical approaches related to integrated management systems (IMS) identified in the scientific literature. Necessity of IMSs and their applications derived from organizational management, namely in identifying ways to increase organizational efficiency and effectiveness, as a result of integrated approach regarding quality-environment-security issues. We identified a number of differences of interpretation of these concepts and their application. Also, we emphasize the importance of synergy between standards to provide solutions applicable to organizational management.

**Keywords:** Integrated management systems; management; integration; international standards

**JEL Classification:** L15; M10; M11

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### **Introduction**

Organisations must consider the well-being of their employees and the working environment, and the impact that their operations have on their neighbours and the local community. Stakeholders are also concerned about these matters and creating an image that meets customer expectations can help to improve market share. Management standards and systems such as ISO 9001 and ISO 14001 have been developed and introduced to address these needs, but dealing with separate management systems covering quality, environment and safety and other issues, and ensuring that they align with the organisation's strategy has proved difficult. The case for integrated management systems (IMS) is now starting to be made in the literature and an IMS is increasingly seen as part of the organisation's management portfolio.

Necessity for an IMS has also arisen as a result of the decision to implement QMSs, environmental management system and/or an occupational health and safety management system. It is important for researchers to understand the structure and history of the relevant standards. This can only be done through their examination, supplemented by other related literature (Harrington and Mathers, 1997; Sheldon, 1997). Researchers will also find that an understanding of QM is required and to this end, Deming (1982), Lascelles and Peacock (1996) and Ceptureanu EG et al (2017) should prove useful.

This paper presents an analysis of the key literature and provides guidance on relevant reading on the subject. In doing this it gives pointers to those researchers who may be interested in taking the subject of IMSs further.

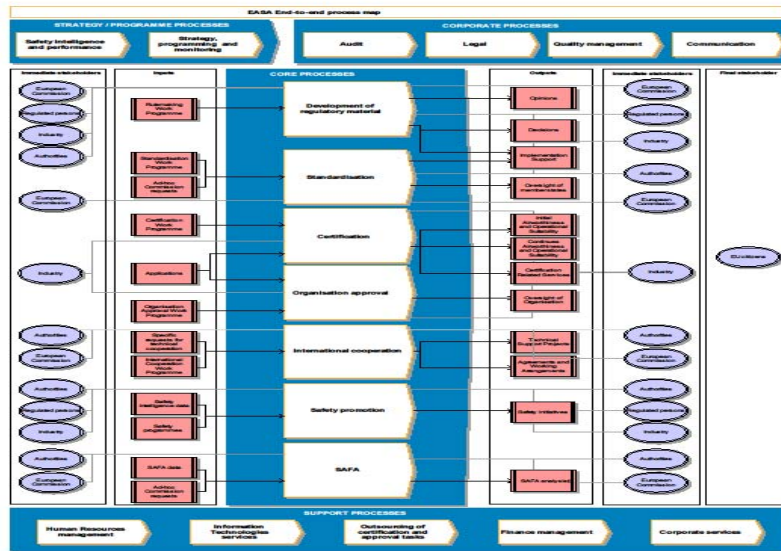
**Integration and cooperation on IMS**

The needs for introduction of the ISO 9000 series (Velury, 1996) and to the integration of standards and performance measurement (Bititci et al., 1997; Karapetrovic and Willborn, 1998a), has led to a number of useful suggestions, some of which are based on Beer’s (1990) concepts. Karapetrovic and Willborn (1998b) believe that their model of a system helps to beat many of the problems caused by a lack of clarity in the quality vocabulary. Karapetrovic and Willborn (1998b) also show how the philosophy can be used to give integrated audit and performance systems.

It is interesting here to see that while the need for a systems view is being advocated, proposed changes to the ISO 9000 series indicate a move from a system-based approach to a process-based one, employing a model that shows the relationship of the main elements of ISO 9001 and ISO 9004.

For instance, ASA has implemented an innovative Business Process Management (BPM) solution to improve its performance. This BPM solution helps us to identify which processes make the biggest impact on our activities, thus allowing us to prioritise and improve our processes, and ultimately to be more efficient and effective in achieving our objectives.

The end-to-end process map provides an overview of the all EASA core, management, and support processes. It describes the Agency processes by organising and managing its activities to achieve the Agency objectives and create value for our stakeholders.



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**Figure no. 1: EASA BPM process chart**

Source: <https://www.easa.europa.eu/internationally-recognised-integrated-management-system>

Struebing (1996) and Stapleton (1997) consider that it is important to see the differences between these systems. In ISO 9001 the system provides a way of ensuring that products conform to specific requirements, but the EMS standard is concerned with the outcome of an organisation's activities and ensuring that it conforms to the environmental objectives and targets. There is no firm link between quality policy and objectives in ISO 9001 and the standard is more concerned with control than performance improvement. MacGregor Associates (1996) also see the differences in scope as important and believe that future revisions to ISO 9001 are unlikely to change this. It is therefore unrealistic to consider integration of ISO 9001 with ISO 14001, but alignment may be possible. If differences in scope are seen as preventing integration, then perhaps the solution is to implement ISO 9001/2 company-wide.

Byrnes (1996) sees the connection between ISO 14001 and ISO 9001 as only a structural one, where documentary control and auditing protocols can be readily applied. He considers that in order to improve organizational and system performance is important to generate a culture change in the organisation.

Cultural differences and the need for change are also addressed by Shillito (1995) and Stapleton (1997). They saw responsibilities for implementation and operation, and professional and institutional pressures, as additional hurdles on the path towards integration.

Organisations should start by writing the ISO 14001 elements into the ISO 9001 clauses based on the linkages given in Annex B of ISO 14001:1996. In advocating this approach they believe that much of what is required is simply good business/management practice, and the inhibiting effect of culture is ignored.

Puri (1996) has developed a set of guidelines for an integrated EMS/TQM system which has three broad components and a framework based on ISO 9001. The three components are: management responsibility; process management; and support systems, and the elements of each component include those of ISO 9001/ISO 14001 plus some of the key elements of TQM. The sub-clause links between ISO 9001 and ISO 14001 are identified and the framework of ISO 9001 is used as the basis for EMS certification. The EMS elements are then incorporated and the result is a set of documentation and procedures that Puri (1996) believes should meet the certification requirements of both standards.

Hoyle (1996) points out, however, that systems manual laid out on the basis of elements is merely responding to the requirements of the standard and the system should be developed to meet the needs of the business, not the auditors. According to Greeno and Willson (1996) is important to integrate issues regarding environment, health and safety into business strategies. Hall (1998) believes that functions which are not integrated are likely to be put on one side when problems arise and the objective should be to achieve a system that employs the plan-do-check-act cycle (Deming, 1982), in a manner that addresses quality, safety and the environment, etc. in activities, such as finance, marketing, operations and personnel. While accepting that the identified linkages allow the integration of QEMS, Tranmer (1996) says that it still ignores the problem of how they are integrated with other management systems and it promotes the identification of each system as a separate issue.

#### **Arguments and problems of integration**

The rapid growth of ISO 9001 and ISO 14001, their harmonisation and the continued importance being placed on them, has led Uzumeri (1997) to compare them with earlier standards and consider their impact on management practice. The traditional approach to

quality tended to stress specification, but TQM requires continuous improvement (optimising), and in the future, managers will have to meet both requirements. The ISO 9000 series of standards, which Uzumeri (1997) describes as meta- standards will also be difficult to remove or change. Once a new requirement is written into a standard it will quickly become part of what stakeholders see as good enough and this could mean that management innovation is driven by those who seek to control what is in the standards rather than by tried and tested theories. This could lead to either the stifling of innovation or rapid growth through a common management structure. Given these possibilities for existing meta- standards, it is reasonable to expect that they would be even more important if and when an IMS standard is introduced.

The danger of reduced flexibility has parallels outside the field of management systems. Crowe (1992) has pointed out that in manufacturing systems, integration has often led to reduced flexibility. Systems that are expected to be flexible turn out to be the opposite with the result that they perform worse over time than separate systems. Researchers will see similarities here with the views mentioned earlier, that off-the-shelf packages for ISO 9001 etc. should be avoided and that systems should meet the needs of the organisation. Given this view, it is surprising that the potential loss of flexibility has not been raised more often in the literature on IMS, particularly in view of the widely accepted importance of flexibility to operations management and the part that the operations function acts in systems management (Slack et al., 1995).

Jonker and Klaver (1998) view the lack of methodology as the main reason why integration is difficult. A road map and a system of methods are needed to overcome this and a framework that focuses on different integration levels is suggested. These require management to decide on its integration policy and whether or not integration is required. A conceptual model is suggested, such as the EFQM and MBNQA. The idea of using these models is not new. Both Bemowski (1996) and Uzumeri (1997) see the models as standards for an holistically approach regarding quality.

Porter and Tanner (1996) have tried to compare and assess the ISO 9000 series, Charter Mark and IIP against the EFQM Model but differences in concept have made this difficult. The conclusion is that even if ISO 14001 and BS 8800 are included in the comparison collectively, the standards still fall short of what the business excellence model offers.

These differences have similarities with Uzumeri's (1997) and Ceptureanu SI (Ceptureanu SI et al, 2016) view that there are two ways of looking at management systems and suggest that integration can be based either solely on the requirements of the standards or on a total quality and continuous improvement approach. In the latter case, standards are still necessary but they are primarily for quality assurance and quality control, and improved business performance is the main aim. With integration through the standards, the objective is limited to reducing audit fees, management fees and administration costs.

As indicated earlier, some studies have treated integration as a secondary issue rather the main area of research. A further problem for researchers is that the case studies often contain insufficient information, which results in a gap between the data given and the conclusions reached. Considerable care is therefore needed when drawing conclusions from these studies (Ceptureanu EG et al, 2015; Radu A-C. et al, 2017).

Generally, the studies fall into two broad areas: those that examine the ways that individual organisations have addressed the introduction of their EMS and OH&SMS, and those that directly address integration. Some studies also address both areas. The preference for using an EMS standard route to EMAS in tis strongly related to whether or not the enterprise was

already certified to the international quality management standard ISO 9000 (Hillary, 1997).

### **Conclusions**

The use of standards and integration are supported by organisational theory and there is a growing interest in the integration of management systems. There are differences however in the interpretation of definitions of integrations and how this should work, and this has led to an urgent need for generally accepted definitions. For those writing on the subject of standards, the current emphasis is on achieving compatibility between the standards in order to bring about alignment, and the proposed common process model for ISO 9001 and 9004 is seen as assisting this. The debate is still in progress however, and while it is a necessary one, it has distracted attention from the view that integration through a total quality approach could offer substantial benefits. If differences in scope are seen as preventing integration, then perhaps the starting point is to implement the ISO 9000 series company-wide.

As with many literature searches, this study has found that the number of references can be reduced to a few that address most that has been written about the topic (Beechner and Koch, 1997; Karapetrovic and Willborn, 1998b; Stapleton, 1997). For further thoughts on systems and the possible future direction of standards, Uzumeri (1997) should be useful and for more practical details of how integration has been implemented, Corcoran (1996) and Wright (1997).

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## INTEGRATING INNOVATION INTO BUSINESS STRATEGY IN THE CONTEXT OF A SERVICE-LED ECONOMY

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### Abstract

The current socio - economic context is marked by a dynamic which force companies to find new ways to maximize profit and thus increase their performance. The search for competitive advantage has led to the recognition of innovation as a vital ingredient for survival and profitability. The context in which innovation is approached in this paper is related to the service – led economy. The presented results of the research highlight the particularities of the service innovation and offers some practical solution for integrating innovation into the business strategy. Service innovation should not be treated as a miraculous solution but it can be a revive way for regional organization giving value and promoting the emerging industries. The purpose of this paper is to open new research direction related to innovation and its implication in organization performance.

### Keywords

Innovation, integrating innnovation, service-led economy, business strategy

### JEL Classification

O30, O35, M21

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### Introduction

There is a great interest for innovation, both in the academic area and among practitioners, especially in today's globalized economy. If until three decades ago, almost every objective of an organization where approach from the economic efficiency point of view, nowadays the intense development of the human activities oblige companies to take into consideration other aspects related to their activity.

Even if in the current economic context, innovation is one of the most used terms, our past studies (Maier, 2017; Maier, 2014; Maier 2013) reveal that it is still not well understood especially due to its complexity and the multitude of specific characteristics of each activity sector. Innovation has been studied from different points of view and in a variety of contexts, like its relation to technology, marketing, social systems, economic development etc. Therefore the literature offers a wide range of approaches for innovation. The context

in which innovation is approached in this paper is related to the service – led economy. The research results presented in this paper highlight the particularities of the service innovation and offers some practical solution for integrating innovation into the business strategy.

### **1. Importance of innovation in the current economy**

Organizations survival and prosperity in a globally increasingly competitive environment is an intense subject addressed in the literature. The more intense competitiveness the more innovative companies are, due to continued momentum to remain on the market to come up with something new and thus to overcome competition. Researchers have tried to find solutions and methods to meet the new requirements imposed by economic globalization. In essence innovation seems to be a simple concept, but the variety of studies regarding innovation, have proven the complexity of innovation, thus the literature offer a variety of definitions for innovation, each researcher trying to capture better and more accurate the process of innovation.

The growing importance of innovation in the current economic context can be observed in the increasing number of scientific paper. A search in the most important scientific database in the world, ISI Web of Knowledge, by the word “innovation”, reveals that there are over 340 000 articles that deals with innovation. An interesting aspect in analyzing the total number of article published, about innovation, is that if we compare the total number of 167 888 articles published before 2010 (without articles published in 2010) with the number of articles published after 2010 (including articles published in 2010) which is 169 195 articles, it can be observed that in the last five years the articles involving innovation have already surpassed the total amount of articles published before 2010 (Maier, 2016).

The major importance of innovation leads to attempt to develop solutions for easier deployment within enterprises (Kasper, 2008). Finding solutions is a difficult process just because of the novelty and hardly predictable nature of innovation. Innovation is by definition creating something new, bringing added value or profit for the enterprise, in the same time innovation requires allocation of resources, both material and human, and the result of the innovative process is difficult to control or predict (Kotelnikov, 2009).

According to the well-known scientist Peter Drucker every organization - not just the business - needs a core competence: innovation. The concept of innovation defines in a synthetic way the introduction of the new. Actions with this purpose belong in human life not from yesterday or today, finding and introducing the new representing the main factors that determined the evolution of mankind throughout its entire existence (Leavy, 2010). Innovation was defined as the creative process by which new products, services or production processes are developed for a business unit (Garcia, 2002; Haider, 2004).

Innovation provides the mechanism for a company to grow faster, better and smarter than its competitors and may allow its direction (Oster, 2010). From the point of view of managers, the main purpose of innovation is to introduce change in the organization to create new opportunities or exploit existing ones (Wicks, 2004; Wu, 2008; Sisay, 2010).

### **2. Innovation in a service-led economy**

For this research we consider innovation in the context of a service-led economy. The importance of the service sector in the global economy is becoming more and more evident. According to (European Commission, 2012) the services and the services sector are having a more important impact on the economic growth having over two third of the workplace

and of the added value in E.U. In the same time the service industry cannot replace the manufacturing industry or solve the competitive problems.

The research objective of this paper is focused on the importance of innovation and its possibility to play a fundamental part in the business strategy of any organization. Some particularities for the service industry were taken into consideration without regarding the service sector as more important than the manufacturing sector or the technological innovation more important than the service innovation. In our vision all of them are vital for the global economy.

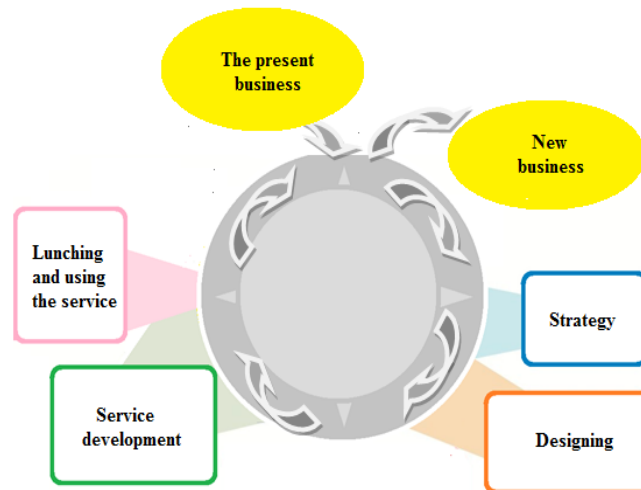
Innovation in services is an innovation process that has as main objective the customer satisfaction through better services which meet the client requirements and in this way he will want to pay for them. The end point of the innovation process is represented by using the service but in the same time it is the beginning of a new start for the innovation process.

The importance of innovation in services is first related to the fact that a better service can bring more earnings for the organization thus it has the power to influence the general economy being a growth factor. Another effect of the service innovation is that it influence the other type of innovation, is well known that one of the most used excuse not to innovate for organization is the lack of money. Its impact on small companies is more important because it can create a grow point for the organization.

The volume of information related to the service innovation in literature is much smaller than the one for product innovation. But several definition for service innovation can be found. At the European level exist a guide for service innovation. According to this guide (European Commission, 2012) the service innovation “comprises new or significantly improved service concepts and offerings as such, irrespective of whether they are introduced by service companies or manufacturing companies, as well as innovation in the service process, service infrastructure, customer processing, business models, commercialization (sales, marketing, delivery), service productivity and hybrid forms of innovation serving several user groups in different ways simultaneously”.

The guide offer another interesting concept relating to the service innovation “the transformative power of service innovation” which according to the same guide (European Commission, 2012) is “the process when services “disrupt traditional channels to market, business processes and models, to enhance significantly customer experience in a way which impacts upon the value chain as a whole”. This particularities of service innovation is once more another proof that innovation is not an easy process, it has a lot of unknowns and it is very hard to consider that a way is better than another one.

Bu still there are some aspects that if they are known can have a positive impact on the innovation success. Related to our research approach, in order to have a successful service innovation a series of activities must properly be adapted and applied. The steps of a good model of service innovation (fig. no. 1) can be: strategy formulation, designing, service development and the final step lunching and using the service.



**Figure no. 1: Model of service innovation**

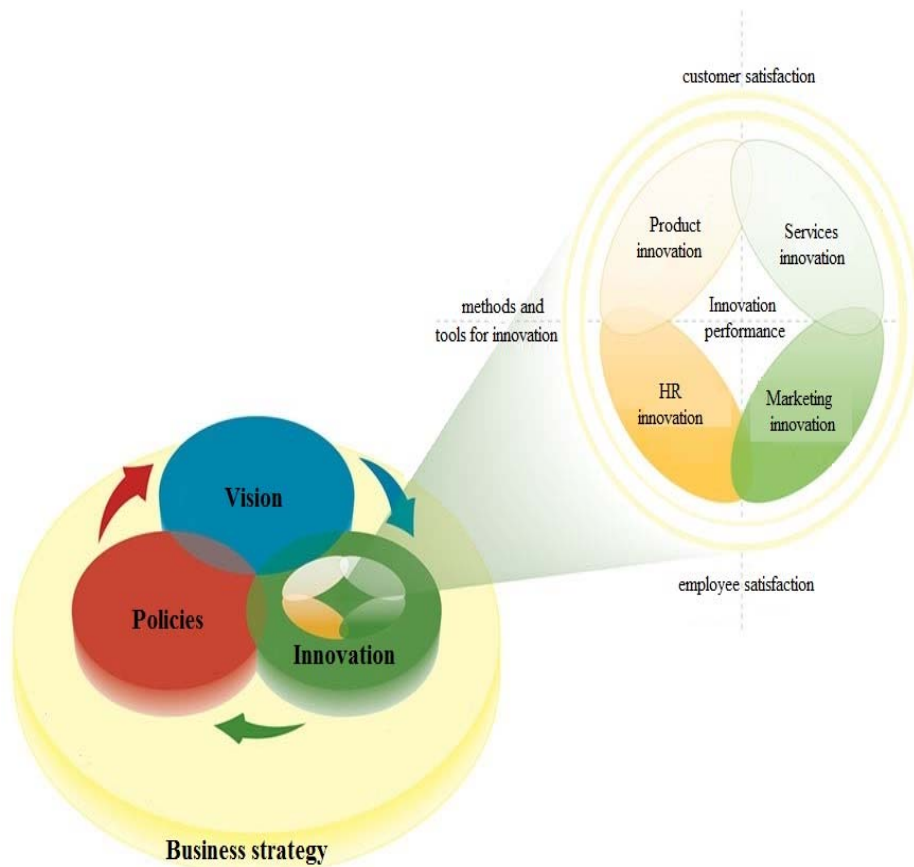
As it can be seen in figure 1, the main role of the innovation is to create something new, some new business that can bring added value for the organization. In case of service innovation the starting point for the service innovation process is the current business, then it is important to establish the strategy and the policy of the organization. After a clear strategy is implemented in the organization the design process of innovation can start, in this phase it is important to generate good ideas that can be transformed into innovations. The next two steps are related to developing the service and launching it to the market or the effective use of the innovation. The model is presented as a circular flow, this implies that after the innovation is used the innovation process starts once more from the beginning.

### 3. Integrating innovation in the business strategy

In the current harsh economic context is more and more evident that innovation is one of the best way to create a competitive advantage on the market. Being the best solution does not mean that it is the easiest one, but the first step is to include innovation in the organization business strategy.

There are numerous information in the literature related to the business strategy. According to (Wikibooks, 2014) business strategy is considered “the art, science, and craft of formulating, implementing and evaluating cross-functional decisions that will enable an organization to achieve its long-term objectives”. If we think about strategy in general it is just a coherent policy or behavior aimed at achieving a specific target or objective. A good strategy in an organization has the main advantage of clarifying its objectives and help it to focus and priorities the activities around them (Business Queensland, 2016). An organization must regularly define its strategy and specify how it is supported in the organization, what functions are involve.

All this are really good in theory but usually in practice the business strategy for organization are not well formulated. As we have seen in the previous chapters integrating innovation into the business strategy is not a priority for many organization. Our research purpose in this paper was to offer a possibility of integrating innovation into business strategy and we have materialized our research in the model presented in Fig. no 2.



**Figure no. 2: Model of integrating innovation into business strategy of an organization**

In the above figure we have tried to offer a detailed image of what aspects related to innovation must be taken into consideration if we want to integrate it with the vision and policy of the organization in order to have a successful business strategy. Even if the context of the research is related to the service-led economy, we did not limit the model just for service innovation, because almost all the aspects related to the innovation are the same for other innovation types. We will highlight the important points for the service innovation.

The model has three important aspects related to innovation: methods and tools for innovation, customer satisfaction, employee satisfaction. In the same time the customer satisfaction and the employee satisfaction can be the connecting point with the other parts of the business strategy, because the final scope of the organization activity is to respond to the customer needs and it can do this with the help of the employees.

Consider the context of our research we need to highlight the particularities of service innovation in the proposed model of integrating innovation in the business strategy. A first particularity is that for the service innovation the customer satisfaction is the most important part and it can make the difference between a good or bad innovation. Unlike the other innovation types the service innovation success is due to the willingness of the customer

to pay for that service. Another important particularity for service innovation is that there are some services that involves the implication of the employees in the offered service and in this situation the employee satisfaction is becoming very important for the success of the innovation.

A successful integration of innovation in the business strategy necessary implies development of an environment or a culture in the organization which will foster innovation. In the same time if innovation is not on the agenda of the top management it cannot be an effective innovation integration. The top manager must use the innovation performance metrics and in this way they can include the innovation in their normal pattern of business. The effect of considering innovation as an important point on their agenda will create an environment where employees are comfortable and challenged to participate in the innovation process.

### **Conclusions**

The purpose of this paper was to highlight the importance of innovation, to show the particularities of the service innovation and to offer a model that will help managers to integrate innovation in their business strategy. The importance and the need for innovation result from its contribution to enhancing the productivity, competitiveness, economic performance and social objectives. Companies need radical changes not only for products or services, but also for their business strategies.

There are several conclusions that can be drawn after analyzing the results of the research presented in this paper. One of the conclusion is that when dealing with innovation in services it involves a change of mentality and acceptance that innovation is not always a result of a research and development activities and that a research department can be in some situation inefficient in developing new strategy to enter the market. In the same time a strategy of focusing just on the service innovation is not a good solution because innovation can appear also in other areas such as processing field.

We cannot consider innovation in service as a miraculous solution but it has the potential to be a mechanism of reviving the regional economic structures, promoting emerging industries and also giving value to the existing ones. Introducing innovation in business strategy and making better use of service innovation is not a simple task it involve a vision and a new strategy but it an effort worth caring it out considering the potential reward for organizations.

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## **FAST FOOD RESTAURANTS: THE NEW SOCIAL ARENA OF URBAN YOUNG PEOPLE**

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### **Abstract**

Fast food restaurants are very popular alternatives for nowadays Romanian young urban population, addressing the needs of a busy, information society but, in the same time, changing the traditional lifestyle. Fast food expansion is due to several important factors, such as the modern commerce development- with its explosion of hypermarkets and malls providing fast food alternatives to their customers, the aggressive marketing policies, lower prices and fast serving times. As such, the current paper analyzes the behavior of young Romanian urban population in respect to their fast food eating habits, with special emphasis on both online and face-to face socialization issues. The results indicate the fact that, the very specific of fast food restaurants enhances the online and face-to-face socialization. It reveals that the fast pace of living determines students and urban young working people to move an important part of their social and business life inside fast food restaurants, not taking into consideration the poor nutritional value of fast food products.

**Keywords:** Fast food, consumer behavior, social media, nutritional value

**JEL Classification:** I10, I12, L82, M21, Q18

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### **Introduction**

Fast food eating was a phenomenon practically unknown in Romania until the beginning of 1990 years. It gradually spread along the last decades, modifying the consuming habits of Romanian people.

The eating “fashion” is always influenced by the very essence of the people, as well as by the complex social-economical-technological context they live. Importing fast food from the Western countries is linked to visible diet changes, to dramatic modifications in the people regular working, travelling and living paces (Voinea, 2011).

The information society requires that its members are always connected to the latest news and know-how; it permanently keeps them busy and preoccupied for staying informed. Large pieces of time are dedicated to activities that previously were not required by society: mobile communication, fast learning and acquiring of information, as well as rapid

rendering needed information to others; extensive networks of friends, acquaintances that transmit information through social media, messenger and email applications. Processing this huge amount of data that surrounds people, requires time. Therefore, time is taken away from other activities, like eating, face-to face socializing, visiting friends etc. These transformations in the overall lifestyle of urban population are very visible now, as for hundreds of years, the working, eating and socializing patterns have remained quite unchanged (Pamfilie, Bobe, Cristescu, Toma, 2016). Daily eating was a matter of home cooking or, in restaurants, of a-la carte serving for the higher class; socializing meant by no means reading information in newspapers; working didn't involve staying always connected to the live information that is provided nowadays by internet and mobile networks.

Fast food restaurants are the reflection of the frantic society we live in. They address the need of people with lower incomes to eat cheaper food outside their homes, in restaurants. They also address the need of crowded with tasks urban working people for the least time-consuming eating breaks. They replace home cooking for people too busy or too tired to spend time shopping for ingredients and preparing meals throughout the day. Nevertheless, numerous studies and debates taking place in media – especially in online media, state that on the long run, the regular consume of fast food is susceptible to inducing health damages due to a lack of needed nutrients and to an increased input of non-benefic additives (Powel,2009).

As such, the current paper aims to analyze the behavior of young urban people in what concerns fast food eating, taking into consideration that they the category most connected to online information (Lenhart et al, 2010), and also that they are the most active and dynamic segment of population in terms of working and studying.

### **1. The particularities of fast food phenomenon in Romania**

Our research through the fast food offers available for Romanian consumers has shown that these are products found also in Western fast food restaurants such as burgers, hot dogs, sandwiches, pizza, fish & chips, French fries. However, there in the Romanian market there are also Asian fast food products such as noodles and soups, as well as the Oriental ones like shawarma, kebab, falafel etc. Soft drinks are most of the times part of fast food menus and the desserts such as pancakes, muffins, doughnuts and ice-cream complete the image of Romanian fast food assortment variety.

According to research, the main ingredients used for preparing fast food ( sugar, salt, saturated fats, flavor and taste enhancers, preservatives, synthetic colorants etc.), when excessively consumed, lead to serious health problems like arterial hypertension, cardiovascular and digestive problems, high cholesterol, diabetes, obesity as well as an alteration of the cerebral activity (Kenny, 2013). These highly processed aliments also have a low content of the fibers required for a proper digestion and low vitamins content. Specialists in public health policies debated about introducing additional taxes on fast food, hoping that an increase of prices will diminish the consume among population( Holt, 2010). Nevertheless, taxes alone are not sufficient (Cotti and Tefft, 2013), as these have to be supported by massive campaigns for informing the population about the risks of long term fast food eating.

Due to the numerous campaigns and messages for a healthier lifestyle distributed throughout media, consumers become more aware about their nutritional needs. As such, many of the fast food restaurants include “healthy” dishes, such as salads, fruit smoothies,

tea, boiled vegetables etc. Also, the main international fast food chains adapt to the cultural particularities of the market, by introducing from time to time limited edition dishes consisting of national traditional food, such as “mici”, “sarmale” etc. By promoting this safe and tested for generation Romanian food within their restaurants, they try to improve their image in what concerns the negative nutritional issues of fast food eating. Also, some of the fast food restaurants introduce on their websites applications for calculating the nutritional values of their products (McDonald’s, 2017), trying to meet the expectations of a more and more informed consumer.

## **2. The social profile of the Fast food consumer**

Despite the mentioned risks of regularly consuming fast food, restaurants offering such products are still popular, as the Romanian fast food market has been growing along the years. Employers often have their lunches or breakfasts in fast foods, while young adults and teenagers are found to visit fast food restaurants at all times of the day; families with children usually eat in fast food restaurants mostly during evenings and weekends (Euromonitor, 2016)

Many young people who work in the urban areas are very busy and, due to over-crowded working schedules, do not have enough time for eating in slow-food restaurants. Therefore, fast food is an appropriate choice, as these products can be consumed while travelling by bus, car, underground, or even at the workplace, while performing job tasks (DailyBusiness, 2015). Also, young employed people, students and teenagers generally have lower incomes than more mature and experienced population (Institutul National de Statistica, 2016), because they are at the beginning of their career or they are still financially supported by their family. Therefore the cheaper prices of fast foods - as compared to those of classic slow-food restaurants or to eco-food eating, may be another reason for attracting the category of low budget population (Meghisan and Meghisan, 2012). The non-formal manner of serving fast food (eating without fork and knife, but with fingers or biting directly from the product) offers a casual relaxed atmosphere.

Taking into consideration the fact that adolescence is a transitory stage of life when adult individual character starts being built, it is natural that teenagers manifest a strong sense of independence in all of their living: values, beliefs, schedules and tasks, socializing, travelling, clothing, eating preferences etc. Having their own experiences and trials are very important, therefore, left to their own choices, teenagers are more likely to willingly disregard the risks of habitually eating fast food. Research indicates the fact that adolescents living with only one parent or having parents with very busy working programs are more prone to excessively eating fast food because they are left alone, unsupervised, for longer periods of time. Also, the parents try to replace their absence by behaving more indulgently with their children, granting them money and liberty for buying IT&C gadgets and clothes or for eating fast food at their own choice (Voinea, 2011). As research suggests that students spend more time for online socialization, than for face to face socialization (Maiorescu et al, 2015), the advertisements created for fast food restaurants target this segment of young adults or teenagers having fun – most of the time in connection with social media, mobile phones, tablets or computers and internet.

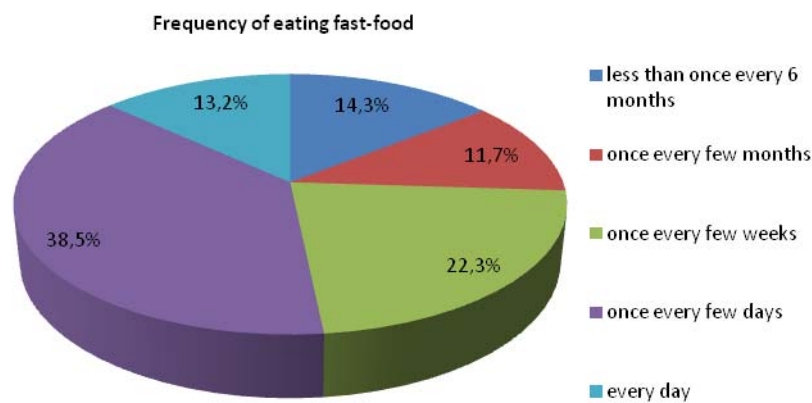
## **3. Research methodology and analysis of results**

The research, deployed in November 2016 was focused on finding information about the following issues:

- The frequency of young people going into fast food restaurants
- The behavior of young people when in a fast food restaurants in relation with their eating, socializing and working activities
- The motivation of young people for choosing fast food
- The influence of internet and social media upon young people fast food nutrition beliefs and behavior

Taking into consideration that young people are the most active segment in using internet and social media (Lenhart et al, 2010), the most appropriate way of distributing the questionnaires of research was considered to be online. Hence, 300 young people of both genders living, working and studying in urban area were asked to fill in the survey online and 273 valid answered questionnaires were retrieved. The distribution of genders consists in 59,3% feminine and 40,6% masculine respondents with ages between 18 – 35 years old. Data was gathered and analyzed with statistical software Minitab and Microsoft Excel. Taking into consideration the sample size of 273 respondents, for a confidence level of 95%, the resulting margin of error is approximately 6%.

In respect to our first objective – finding out the frequency of fast food eating, it can be remarked that more than one third of respondents (38.5%) state that they eat fast food products once every few days (see figure no.1).



**Figure no. 1: The frequency of eating fast food among young people**

Adding the segment of respondents that daily eat fast food (13.2%), we can see that about half of the young respondents eat fast food very often.

Because eating with regularity fast food leads to health problems on the long term, we wanted to find out if respondents have information about the nutritional values of the products they consume.

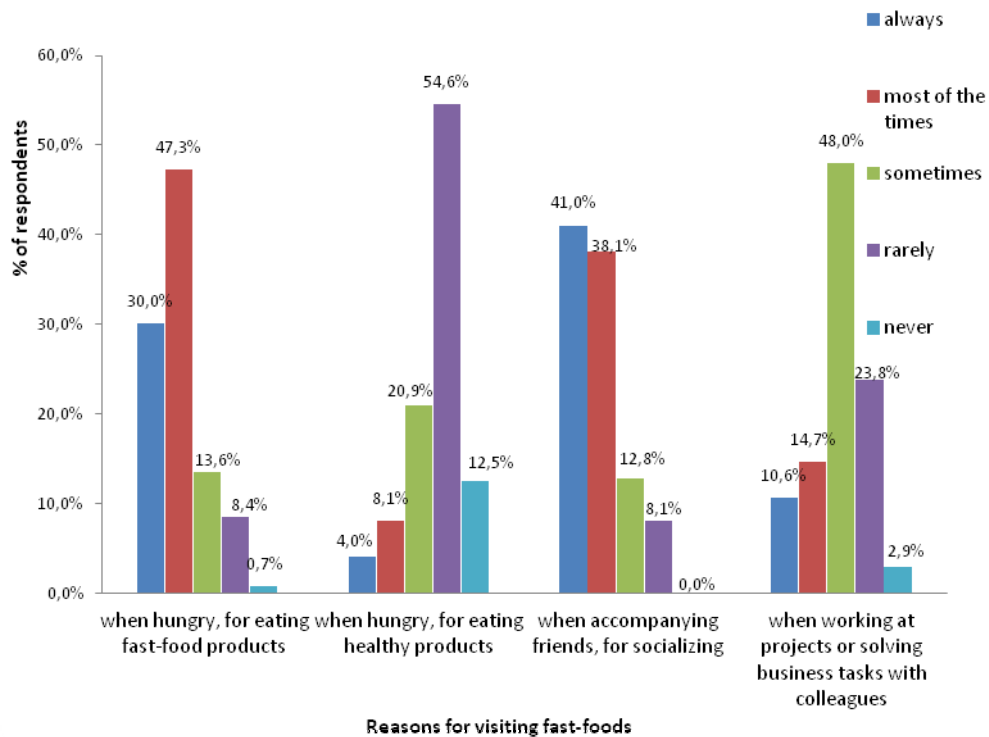
For finding out the level of information respondents have about the nutritional values of the fast food products, respondents were asked whether they know or get informed beforehand about the nutritional values of the food they are to buy. About two thirds of the respondents (70%) stated that they never check the nutritional information when going into a fast food, and 24% that they check it occasionally. Only 6% of the questioned young people stated that they always check the nutritional information of fast food products before eating them.

Pearson Chi-Square results have indicated no association between “Gender” and “Checking for nutritional information about fast food”.

The lack of interest about the nutritional values of fast food is also visible in figure no.2, where the most frequent reason for visiting fast food is eating when hungry fast food products. Eating healthy products inside fast food is rarely a choice for more than half of the respondents.

Also, it can be seen in figure no.2 that visiting fast foods is a matter of socializing: 79% of respondents indicate “socializing with friends” as reason that convince them to go in such a restaurant every time or, at least most of the times. This indicates a social habit of having meals together with friends inside fast foods, since 68% of respondents say that they eat with friends in slow food - a-la carte restaurants occasionally (once every few months or even more seldom).

Almost half of the respondents stated that from time to time they choose fast food as the place for solving work or school project related tasks with colleagues.



**Figure no. 2: Respondents’ reasons for visiting fast food restaurants**

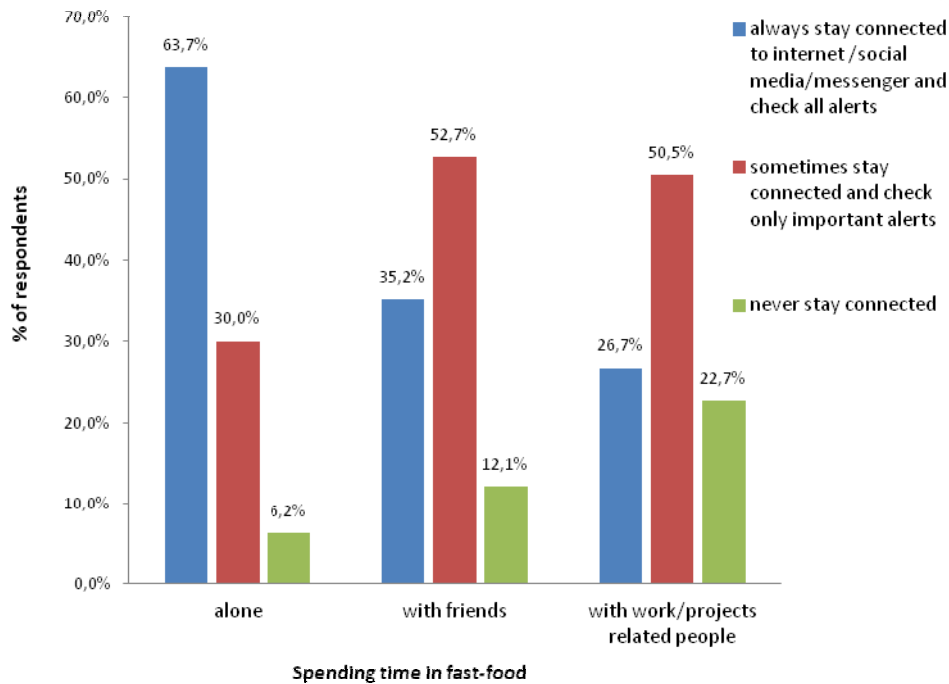
The social behavior of nowadays young generation is linked with mobile technologies and applications; therefore we wanted to know if eating in fast food – which, according to the results, is largely the result of socialization needs, rules out online socialization or the use mobile smart devices. In respect to this issue, when asked about their using Smart devices such as mobile phones, tablets, Smart watches, laptops etc. in fast foods, about two thirds

(63%) of respondents stated that they usually use them and 21 % that they use them from time to time.

Social media applications such as Facebook, Instagram (82%), social messaging applications such as Whatsapp, Viber, SMS (74%) and office/school related applications such as email or documents viewer/editors (61%) are the most accessed by respondents when they are in fast foods. About a third of the respondents (32%) state that they play games when they are in a fast food.

The Pearson Chi Square test calculated between “Gender” and “Use of Smart devices in Fast food” indicated no association between these variables.

Although we would have expected to see a connection between “Games” and “Gender”, as the masculine segment of population is more prone to digital gaming, the results do not confirm this hypothesis. For 1 degree of freedom, the calculated Pearson Chi-Square is 0,083 with a p-value of 0.774, the cutting off being at 0.05.



**Figure no. 3: Respondents’ behavior about using internet/social media/ SMS-messenger while visiting fast food, depending on the company they have there**

The use of mobile Smart technologies for socialization or for information while in fast food is at its highest while eating alone (see figure no.3). It can be noticed that, even while being with friends one third of the respondents state that they are always connected and check all alerts coming from social media/ messenger/ internet linked applications.

The highest percentage of respondents saying that they don’t stay connected in fast food is for situations when they are discussing work or school projects issues with others. Still, this percentage is low (only 22.7%), meaning that even in the more “formal” context like discussing business or school problems.

### Conclusions

Romanian young urban people, despite the fact that they are informed and connected to Internet and social media applications still go in fast food restaurants and frequently consume the over processed food lacking in nutrients food, with potential associated long term health issues.

Fast food restaurants provide menus at low prices, fast standard serving and a casual atmosphere. Therefore, their motivation in choosing fast foods strongly revolves around the need for socializing with friends; however, going in fast foods is driven almost in the same degree by the need to eat.

Our research has shown that, regardless of their company inside fast food restaurants (alone, with friends or with business/study partners) young urban people are most of the time connected to internet, social media and messaging applications, ready to instantly check all updates and news they receive on their Smart mobile devices.

It turns out that, unlike traditional slow-food restaurants, fast foods attract in a higher extent young urban people for face to face socialization. While present in fast foods alone or in the company of others, online socialization and information seldom cease.

The young urban individual regards fast foods as being more than mere places to eat. Fast food is a social arena, where various needs such as seeing friends, discussing professional issues and staying updated with the latest news from the social media can be met simultaneously.

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## DISRUPTIVE INNOVATIONS, THEIR CHARACTERISTICS AND IMPLICATIONS ON ECONOMY AND PEOPLE

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### Abstract

The world is subject to constant changes and innovation cycles decrease in time as technology advances. The last centuries originated a lot from innovations, starting with the 1<sup>st</sup> industrial revolution in 1780 down to the present 4<sup>th</sup> industrial revolution or the so called digital transformation. All main evolutionary changes were shaped by visions and innovations and they influenced the economy and the population as well.

The freshest buzzword related to this hotly debated topic is “disruption”. Nowadays the innovations must be disruptive, the business models and strategies are clustered as disruptive or non-disruptive as well as the competition and markets have to have disruptive components. But what does disruption in that context mean, is it good or bad to have disruptive innovations, and is it a new or an old reoccurring phenomenon?

Based on those thoughts and because of the topicality and controversy of this topic the authors have decided to analyze the meaning and significant characteristics of “disruptive innovations” and to have a short historical examination.

The obtained results showed that “disruptive innovation” is: something breathtaking improved or new which disturbs an existing environment or even destroys and reshapes it and is nothing preventable or to fear.

### Keywords

Disruptive innovation, creative destruction, industrial revolution, sustainable innovation, technologies, competition.

### JEL Classification

D4, F1, M1, O3, Z1

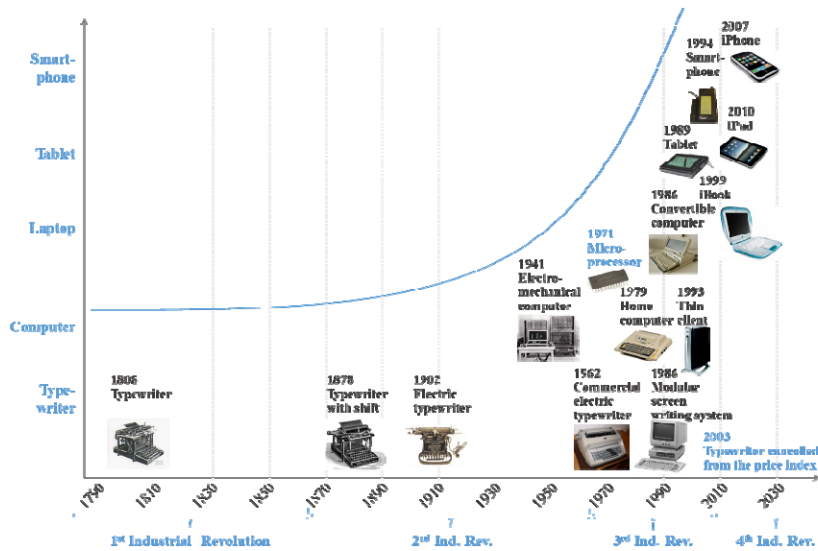
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### Introduction

While tracking the newscasts and reading the daily headlines, the attentive observer may be inclined to say in style of Karl Marx: “a new specter is haunting the world – the specter of disruption” (Marx and Engels, 1928). In numberless publications and news the word “disruption” seems to be ubiquitous. For this reason it was no wonder that the FAZ (Frankfurter Allgemeine Zeitung) had nominated “disruption” to be the business word of the

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year 2015 based on the frequency in printed publications (Meck and Weiguny, 2015). Likewise consulting the Thomson Reuters Web of science shows that the amount of publications with “disruptive innovation” has almost tripled within the past ten years and the citation has even doubled only between 2014 and 2016 towards 830 per year (Thomson Reuters, 2017). All this demonstrates an undoubtedly interest in the topic. What “disruption” really means, whether it is good or bad to have “disruptive innovations”, and whether it is a new or an old reoccurring phenomenon is further analyzed below. It is inevitable to recognize that everyone from politics, education or economy are using the term “disruption” to describe new trends, methodologies and technologies, and that it is controversial and provokes discussions in many publications and news panels (Horx, 2016; Maier et al., 2016; Moazed and Johnson, 2016; Meck and Weiguny, 2015). On the other hand, it is clear to everyone, that the world is subject to constant changes and the innovation cycles decrease in time as scientific and technology advances. Some of the innovations from the last decades had a small impact (e.g. the tea bag) and some of them had the power to change a whole ecosystem (e.g. the microprocessor). Equally it is beyond controversy that all major evolutionary changes were shaped by visions and innovations and they influenced the economy, environment and the population as well. In figure no. 1, the authors have combined, as an example, the main evolutionary steps from the construction of the first typewriter towards the first iPhone to demonstrate the shortening of the development cycles and the different incubation times innovations had before they become mainstream.



**Figure no 1: Historical evolution steps from typewriter to the iPhone**  
 Source: Authors design

For instance, 70 years passed by from the development of the first typewriter to the next evolutionary step, the invention of the typewriter with the shift function between small and big letters. Today, a life cycle of this length is hardly believable, where every year a new iPhone is presented to the market. Likewise, the incubation time of about 60 years from the

first electric typewriter to the first commercial sold electric typewriter exemplifies how much time an innovation cycle might take from the prototype to mass-production. A further interesting example is the development of the tablet, here the first attempts at the beginning of the nineties were not successful, the mobile internet was at that stage not efficient enough and the operation with the pen was cumbersome.

Based on the first findings and because of the topicality and the controversy discussion, the authors decided to analyze the meaning and significant characteristics of “disruptive innovations” by having a short historical examination. The objective is, to gain a common understanding about the acceptance of the terms “disruption” and “disruptive innovations”. Secondly their implications on economy and people based on selected historical examples shall be elaborated. Thirdly, the authors prove the periodical appearance of the terms and thereby define a basis for future researches.

**Literature Review**

For this study a systematic literature review was conducted between December 2016 and March 2017. The focus was set on publications from the recent years with the subjects: “disruption”, “disruptive innovations and relations to economy, people and industrial evolutions and revolutions. The area of research was therefore clustered in three main parts, the derivation of definition and characteristics, evaluation of the history and analysis of the presence.

**1. Definition and Characteristics of “Disruption” and “Disruptive Innovations”**

Due to the exhaustless amount of newer publications and articles about “disruption” and “disruptive innovations” which aimed presenting the suitable and latest definition of disruption and the historical derivation, the authors decided to summarize the main cogent findings.

In a couple of publications, the history of disruption is seen in the analogy of the phoenix, the faith of reincarnation and in the god Shiva (the creator and destroyer) (Weis, 2014). Again, in other publications famed names are listed from philosophical, sociological and economical field, like Karl Marx with his book “The Communist Manifesto”, Josef Alois Schumpeter with his theory of the "creative destruction", Friedrich Nietzsche with his book “Thus Spoke Zarathustra” up to the “disruption messiahs” of the 20<sup>th</sup> century, Clayton M. Christensen with his book “The Innovator's Dilemma” (Denning, 2016; Kiehne et al.,2016; Meck and Weiguny, 2015; Weis, 2014). To approach the meaning of “disruptive innovation” the authors firstly elected a linguistic leveling based on synonyms for each single word in a first step (cf. table no. 1).

**Table no 1: Synonyms for disruption and innovation**

<i>Disruption</i>	<i>Innovation</i>
<i><u>Related to continuity or regularity:</u> discontinuity, interruption, stoppage</i>	<i>Improvement, modernization, relaunch, novelty,</i>
<i><u>Related to upsetting and break:</u> disordering, disorganization, obstruction, confusion</i>	<i>unconventionality, variation, change and development</i>

Source: Authors compilation based on Harper, 2016; LoveToKnow,2016 and Oxford, 2016.

Based on this compilation “disruption” is associated with an destroying or crushing attribute and commonly used and envisioned by examples where companies lost their market dominance and ceased to exist. On the other hand, “innovation” is associated with something breathtaking, improved or new. Bringing those theories together, “disruptive innovation” is: **something breathtaking improved or new which disturbs an existing environment or even destroys and reshapes it.**

To sum up, disruptive innovations can be seen as the trigger of an evolutionary process eliminating the weak, pricy and obsolete solutions and replace them with modern, favorable and more convenient solutions. From the customer perspective, disruptive innovations are almost always positive and value adding and from company perspective they are sometimes existential, when the companies do not discern the signals and bask in their yesterday’s success.

## 2. Short historical Examination of Disruptive Innovations

In the analyzed publications, a lot of examples for disruptive innovations are listed and their disruptive impact is explained: Kodak and the digital photography, Amazon and eBooks, Apple and iTunes, Netflix and movie streaming, Airbnb and hotel business and Uber and taxi market (Christensen et al., 2015; Diamandis, 2015; Horton, 2014). The questions arise, if all the many times named innovations truly were disruptive innovations, if the identified characteristics apply to them and what were their implications on economy and people?

The authors decided, not to simply recap the often quoted examples and instead used a selected list of main historical innovations to verify if they meet the conditions to be a disruptive innovation or not.

**Table no 2: Selected historical innovations and their disruptive characteristics**

<i>Time</i>	<i>Innovation</i>	<i>Disruptive characteristics at market start compared to the disrupted solution</i>
1788	<i>Power weaving loom</i>	+ <i>New technology, faster &amp; cheaper production, higher flexibility &amp; diversity</i> - <i>More expensive compared to the Hand loom (2<sup>nd</sup> cent. AD)</i>
1913	<i>Belt production of the Ford Model T</i>	+ <i>New production process, faster &amp; cheaper production, wider reach, higher standardization, mass market</i> + <i>Less expensive compared to the old fashioned Electric car (1839) &amp; manual produced Automobile (1886)</i>
1941	<i>Computer</i>	+ <i>New technology &amp; functionalities, new way of working, higher reusability &amp; duplication</i> - <i>More expensive compared to the Typewriter (1808)</i>
1969	<i>Internet</i>	+ <i>New technology &amp; functionalities, new way of collaboration</i> - <i>More expensive compared to the Telephone (1860) &amp; Media</i>
1971	<i>Email</i>	+ <i>New technology, faster delivery, higher parallelism</i> + <i>Less expensive compared to private Post (1520) &amp; Telegram(1844)</i>
1973	<i>Mobile</i>	+ <i>New technology &amp; functionalities, mobility, new market</i> - <i>More expensive compared to Telephone (1860)</i>

	<i>phone</i>	
1995	<i>MP3 player</i>	+ <i>New technology, higher capacity, smaller size, new platform</i> - <i>More expensive compared to Walkman (1979) &amp; Discman (1984)</i>
2007	<i>Apple iPhone</i>	+ <i>New technology &amp; functionalities, higher mobility, smaller size</i> - <i>More expensive compared to the Laptop (1996) &amp; iPod classic (2001)</i>

Source: Authors compilation based on Diamandis, 2015; Horton, 2014; Allis, 2013

As it is distinguishable from the examples in the table, disruptive innovations appear almost alongside with technical innovations and new or different functionalities. Likewise in the beginning of their lifecycle the new solutions show sometimes higher expenditure or have a different quality compared to similar established solutions. Therefore the added value of those new solutions need to be overwhelming, it must fulfill the basic needs and they are required to touch the spirit of the age. Besides, a great many times, disrupted solutions continue to exist in parallel for a certain period but sooner or later they will disappear if they have no unique power and remaining demands. Sometimes, such products survive in the underground and through lovers they can later experience a kind of renaissance when they become modern or the environment has changed as for example the vinyl and the electric car.

Around 1910 the manufacturing of electric cars was stopped after the mass production came up and the automobile with combustion engine conquered the market. Since the end of the 1990s, the automobiles with electric motors experienced an increasing attention due to the dwindling natural resources, zero-emission mobility and the quest for the drive of the future. If one believes the prediction, there will be a reversed repression within the upcoming years if the problems with the charging rate, the power stations, the cell density of the batteries and with that the recoverable distance will be improved. The Apple iPhone instead, is a good sample to show that disruptive innovation can come from one and the same company based on parallel development of solutions with a high rate of similarity in their functionalities they offer. The classic iPod functionality was reused and extended within the iPhone and therefore after some years Apple decided in 2010 to stop the production because the market had changed towards a demand for iPhones combining more functionalities within one device. Further attributes identified based on those examples are the emergence of new markets, platforms and processes, as for example the innovations of internet, mobile phone and mass production and the importance of smaller size and higher mobility like with MP3 player and mobile phone. In a nutshell, the carved-out characteristics of disruptive innovations can be proved by those innovation examples and they can be classified as disruptive innovations because they pushed the previous used solution either out of the market or in a niche market after their teething troubles were eliminated, they performed certain sustaining innovation steps and got mainstream and their prices got fair.

### 3. Disruptive Innovations and their Implications on the Economy and People

As mentioned in the beginning of this paper, real disruptive innovations will always have an impact on the economy and the people and with their penetration of the market they have the power to initiate a restructuring process. In the following chapter, the authors

analyzed those implications from disruptive innovations on the economy and people. Therefore, the examples from the previous chapter were reused and the changes, they forced in the economy and for the people at that time, were summarized (cf. table no. 3). The aim was to identify a pattern and to demonstrate that disruptive innovations are strongly linked to reiterating industrial and technological evolutions and revolutions.

**Table no 3: Selected historical innovations and their implications on economy and people**

Time	Innovation	Implications on	
		Economy	People
1788	Power weaving loom	<ul style="list-style-type: none"> <li>→ <b>1784 beginning of the 1<sup>st</sup> industrial revolution</b></li> <li>→ Mechanization &amp; rationalization of work</li> <li>→ Change from home to factory work</li> <li>→ Labor wage</li> <li>→ Increased productivity</li> <li>→ New logistics &amp; transportation</li> </ul>	<ul style="list-style-type: none"> <li>→ Unemployment &amp; immiseration</li> <li>→ Changed profile of qualification &amp; job types</li> <li>→ Emergence of technical schools &amp; restructured society</li> <li>→ Exploitation of labor &amp; child labor</li> <li>→ Organized labor &amp; union</li> </ul>
1913	Belt production of the Ford Model T	<ul style="list-style-type: none"> <li>→ <b>1870 beginning of the 2<sup>nd</sup> industrial revolution</b></li> <li>→ Assembly line production</li> <li>→ Standardization &amp; automation</li> <li>→ Supplier industry</li> <li>→ Mass production</li> <li>→ Productivity improvements</li> <li>→ Forced to economic growth</li> <li>→ Globalization</li> </ul>	<ul style="list-style-type: none"> <li>→ Changed profile of qualification &amp; job types</li> <li>→ Mass consumer society</li> <li>→ Lower-priced goods</li> <li>→ Growing prosperity</li> <li>→ Motorization &amp; mobility</li> <li>→ Growing standard of living based on electricity</li> <li>→ Social legislation</li> </ul>
1941	Computer	<ul style="list-style-type: none"> <li>→ Automation of production</li> <li>→ New industries</li> <li>→ Electronic data processing</li> <li>→ Restructuring workflows</li> <li>→ Increasing complexity of work</li> </ul>	<ul style="list-style-type: none"> <li>→ Changed profile of qualification &amp; job types &amp; way of working</li> <li>→ Specialization &amp; monotony</li> <li>→ Increase material wealth</li> </ul>
1969	Internet	<ul style="list-style-type: none"> <li>→ <b>1970 beginning of the 3<sup>rd</sup> industrial revolution</b></li> <li>→ New industries &amp; markets &amp; platforms</li> <li>→ New ways of communication &amp; collaboration</li> <li>→ Reduced direct customer contact</li> <li>→ Beginnings of digitalization</li> <li>→ Higher accessibility</li> </ul>	<ul style="list-style-type: none"> <li>→ Changed profile of qualification &amp; job types</li> <li>→ Easier access &amp; exchange from information &amp; messages</li> <li>→ Alienation &amp; Social networking</li> <li>→ New consumption pattern</li> <li>→ Different ways of collaboration</li> <li>→ Higher mobility &amp; speed</li> </ul>
1971	Email		
1973	Mobile phone		
1995	MP3 player		
2007	Apple iPhone	<ul style="list-style-type: none"> <li>→ <b>2010 beginning of the 4<sup>th</sup> industrial revolution</b></li> <li>→ Growing interconnectedness</li> </ul>	<ul style="list-style-type: none"> <li>→ Social platforms</li> <li>→ Change of consumption behavior</li> </ul>

	<ul style="list-style-type: none"> <li>→ <i>Virtualization</i></li> <li>→ <i>New markets &amp; platforms</i></li> <li>→ <i>Highly flexible production</i></li> </ul>	<ul style="list-style-type: none"> <li>→ <i>Decreasing privacy &amp; increasing public sharing</i></li> <li>→ <i>Instant contact &amp; action</i></li> </ul>
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Source: Authors compilation based on Marquardt, 2017; Paeger, 2016; Wolter et al., 2015 and Rammert, 2002

First of all, it can be stated that the selected disruptive innovations always occurred within the era of an industrial revolution. Each of those revolutions came along with a massive modernization or substitution of existing industries and technologies, changed their mode of operation and the related processes and caused thereby a circulating effect on economy, environment and society (Perez, 2009). It can be concluded that disruptive attributes of innovations are undoubtedly provoked and influenced by the industrial evolution of the past and will presumably follow these patterns in the future as well. The most common implications on the economy and the people can be summarized with the depicted general points in figure no. 2. Additionally, the authors related them to each other to show up some mutual interactions as for example an improvement of productivity, standardization and automation have a direct influence on unemployment.

Going back to the presence and the “disruptive innovations hype” it should be much easier to identify what truly is a disruptive innovation by applying the characteristics and the implications they should have on the economy and the people. From the authors’ point of view, some of the modern so-called “disruptive innovations” do not reveal the identified characteristics of being revolutionary and will force enormous economic and social upheavals.

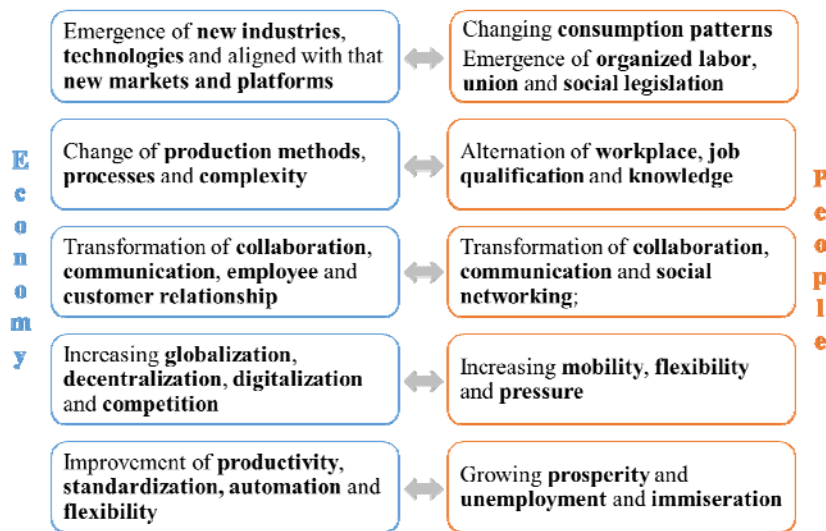


Figure no 2: The common implications of disruptive innovations on economy and people

Source: Authors design



## Conclusions

Based on the analysis of the referenced data sources, the following definition of a “disruptive innovation” is elucidated: a disruptive innovation is something revolutionary improved or new disturbing an existing environment or even destroys and reshapes it, it can emerge from outside by entrants or inside of an incumbent and it will always have a powerful effect on economy, environment and society. The term “disruptive innovation” is according to the authors’ findings solely an inflationary used word for innovations that describe activators of a natural revolutionary process. The fact is, it cannot be stopped as much as the three industrial revolutions before and it is nothing to worry about, it is just a question of early detection, active management and utilization. For straightforward, flexible and visionary companies that are willing to take risks and uncertainty, disruptive innovations offer a lot of possibilities and the vanguards and leaders on the market have already shown what can be achieved when disruptive innovations were active.

The authors emanate that this study will increase the understanding about the often misused term “disruptive innovation”, the history behind it and to demystify the actual hype about it. As it was apropos formulated by the Greek philosopher Heraclitus of Ephesus more than 2.500 years ago: “Nothing is permanent except change” (Hainsch, 2014).

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## RESEARCH ON USING FMEA AS A RISK ASSESSMENT METHOD IN ORDER TO REDUCE RISK HANDLING COSTS

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### **Abstract**

This article proposes the extension of the Failure Mode and Effects Analysis (FMEA) model as more reliable and efficient way of assessing risks. The control mechanisms that quantify and analyze the consequences of risk materialization and its probability of appearance are usually considered by managers using subjective data. How can we measure if the probability of appearance of one risk is high or medium?

The objective of this paper is finding new ways of introducing FMEA's detection as a third parameter in the risk assessment matrix and establishing weather the evaluation is more efficient or not. The methodology includes interviews with managers and specialists that handle risk management processes in their organizations and that share an opinion on extending the risk matrix and improving the whole risk assessment process in order to cut risk handling costs.

**Keywords:** Risk assessment, risk management, FMEA, control mechanisms, process efficiency

**JEL Classification:** G31

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### **Introduction**

Using the Failure modes and effects analysis (FMEA) model can be a methods to increase the effectiveness of any risk assessment process in organizations by ensuring the accuracy of the controlling processes and systems. Introducing detection as a third attribute in the risk assessment matrix can decrease the materialization of risks and therefore, reduce costs with risk handling. While consequence and probability of appearance are mostly assessed using subjective data, evaluating the control mechanisms that determine these parameters should lead to a more pragmatic risk assessment process.

Carbone T. and Tippett D. (2015) mention that by adding the detection value to the risk quantification process, another measure beyond the typical risk score is made available to the project team. The benefits of the new method include an increased focus on the most imminent risks, prioritizing risk contingency planning, improved team participation in the risk management process, and development of improved risk controls.

The main research questions are:

- What is the role of detection in the risk assessment process?
- Is detection applicable to any risk matrix?
- Which are the main control mechanisms that should be evaluated during the risk management process?
- How can risk handling costs be reduced as a result of the risk matrix extension?

The objective of the paper is to illustrate and evaluate a risk matrix model applicable to any organizational process or area of activity using three attributes: probability of appearance, consequence and FMEA’s detection. The main advantages and conclusions related to the new model are the result of qualitative research during interviews with specialists from 23 different companies and four different areas of business: FMCG, construction, pharmaceuticals and agriculture.

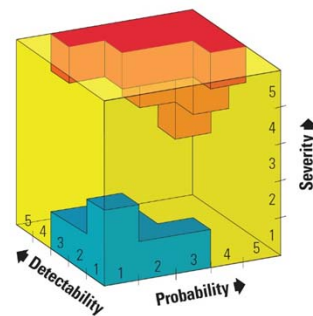
**Theoretical Aspects**

Risk management should be part of any decision making process and has a key role in achieving the organizational objectives (Mateescu (Bejinariu) et al., 2015). Based on today's uncertain market conditions, demands of globalization and increasing external threats, Jereb, Ivanuša and Rosi, (2013) concluded that in order to assure continuity of operations in any organization certain measures have to be taken. The role of risk management is to detect uncertainties and their nature - the uncertainties of not achieving or not accomplishing something, uncertainties about the enhancement of opportunities, about achieving and exceeding targets and performance, etc. and to determine how they can be handled. According to Grigore and Drăgan (2015), in an innovation-oriented or knowledge-based economy, the function of opportunity recognition and taking the risk of realizing it becomes more prominent. Risk management is also a key process in development and operationalization of a model of innovation management system as a part of an integrated quality-environment-safety system (Maier, et al., 2017).

Risk analysis can be either qualitative or quantitative or a combination of both. The qualitative risk evaluation methods use the judgment and opinions of knowledgeable experts to categorize the risks, while quantitative tools are based on probabilistic and/or statistical models that calculate risk over time (Dinmohammadi et al., 2016). Quantitative risk assessment methods are more reliable and robust than the qualitative ones, however, quantitative risk evaluation requires more indexed data, which makes it difficult to apply. Qualitative data relies on subjective evaluation and control mechanisms, creating a gap in the risk assessment process.

One of the methods that involves the evaluation of

these control mechanisms is FMEA (U. S. Dep. of Def., 1949). According to Chang K., Chang Y. and Lai P. (2014), FMEA has been used to identify the critical risk events and predict a system failure to avoid or reduce the potential failure modes and their effect on operations. The risk of failure is evaluated using the risk priority number (RPN) that is the mathematical product of three parameters: severity



**Figure no 1: Tridimensional risk chart with high-risk zone in red and low-risk zone in blue**

Source: Youssef N. F., Hyman W. A., 2010, *Risk Analysis: Beyond Probability and Severity, Medical Device and Diagnostic Industry*

(SS), occurrence (OO), and detection (DD) (see Figure no. 1). Traditionally, FMEA is used in the engineering and medical fields, being defined as a reliability analysis based on historical failure data and focuses on problems that have occurred (Schneider H., 2012). According to ArunKumar and Dillibabu (2016), FMEA is one of the first systematic techniques for failure analysis. An FMEA is often the first step of a system reliability study. It involves reviewing as many components, assemblies, and subsystems as possible to identify failure modes, and their causes and effects. Indexing past errors and negative events leads to creating a registry of the main risks that have materialized and therefore, identifying the main causes for these negative events. Managers use risk handling plans (see Table no. 1) in order to determine which actions are to be taken for each of the analyzed risks. Preventing these negative events can be managed by listing all historical causes, therefore minimizing the chances of risk materialization and related effects (see Figure no. 2).



Figure no. 2: From cause to effect – Example

While all the risk management processes are in place and the risk handling actions have been taken, managers and specialists have to determine what went wrong: Why couldn't these risks be prevented? Were they identified too late or were they just skipped? Is the risk assessment process flawed? How can they control the risk evaluation process?

**The Extended Risk Assessment Process**

Before introducing the probability of detecting risks as a third attribute in the risk evaluation process, a standard risk matrix will determine risk levels (see Table no. 1) using probability of occurrence and consequence on a 0 to 25 scale using the NASA matrix (NASA 2011).

Table no. 1: Risk levels and risk handling plan

Risk levels	Risk type	Risk handling actions	Responsible
1-2	No risk	-	-
3-9	Acceptable risk	Can be indirectly influenced by actions taken in order to minimize tolerable or unacceptable risks	Process specialist
10-12	Tolerable risk	If it cannot be influenced, control mechanisms will be set up in order to not transform into an unacceptable risk.	Process specialist
13-20	Unacceptable risk	If it cannot be influenced, control mechanisms have to be set up.	Process manager
20-25	Maximum risk	All process activities have to be stopped until the associated risk becomes acceptable.	Process manager

The probability of detecting risks using the default attributes varies depending on the control mechanisms that determine the values for each attribute. How do one know if the probability of occurrence for one risk is high or medium? Who and what determines the gravity of the consequences? By evaluating the control mechanisms, detection rates the likelihood that the problem will be identified before the risk materializes. Introducing detection recalibrates the risk matrix scale using the already identified risk levels (1-25) and probability of detection on a 1 to 5 scale (see Figure no. 3).

Maximum	25	RISK LEVEL	25	50	75	100	125
Unacceptable	20		20	40	60	80	100
Tolerable	12		12	24	24	48	60
Acceptable	9		9	18	18	36	45
No risk	2		2	4	4	8	10
		0	PROBABILITY OF DETECTION				
			1	2	3	4	5
			Very high	High	Moderate (medium)	Low	Very low

Figure no. 3: Risk matrix using 3 attributes

**Methodology and results**

In order to determine the advantages and disadvantages of the extended risk assessment matrix for all industries, 8 interviews were conducted and 93 questionnaires were sent by email between November 2016 and March 2017. The analyzed data is based on the answers of 74 specialists and department managers from 23 companies. Given the fact FMEA is mainly used in Engineering and Medicine, the versatility of the extended risk matrix was researched by discussing the topic with employees from companies that handled FMCG, constructions, pharmaceuticals and agriculture. The questionnaire included seven questions related to the risk assessment process within each of the interviewees’ organizations in order to test the following hypotheses:

1. *Detection as a third attribute in the risk evaluation matrix can be used in any area of business;*
2. *Using a historical risks registry and determining the main causes for the most common and dangerous risks, companies can reduce the probability of these risks to reoccur by either eliminating the causes or increasing the probability of detection;*
3. *By increasing the probability of detecting risks, there will be less risks to be introduced in the risk handling plan - therefore costs will be reduced.*

Question no. 1 *Have you ever consider using FMEA or detection within the risk evaluation process?*

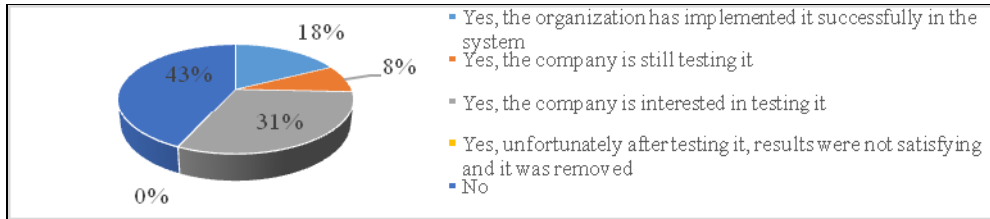


Figure no. 4: Results for Question no. 1

*Results:* The first question intended to determine the level of awareness about FMEA and more precise detection. 43% of the organizations are using FMEA in order to increase the efficiency of the risk matrix. Almost 40% of the companies are interested in the extended risk assessment process or are already testing it.

Question no. 2 Which are the highest threats when assessing risks?

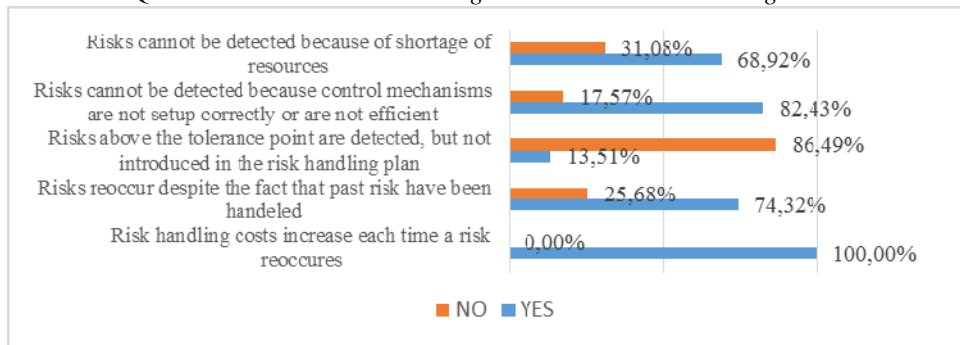


Figure no. 5: Results for Question no. 2

*Results:* Almost 70% of the respondents say that there is no separate budget for the risk evaluation process and the limited resources can lead to risks not being detected on time or at all. Another cause for risks not being detected is the inefficiency of the control mechanisms according to almost 83% of the managers and specialists. Almost 90% of the employees answer that risks are usually registered in the risk handling plan, while almost 75% respond that risks do reoccur despite the fact that actions were taken in order to prevent them in the past. All the managers and specialists agree that the reoccurrence of risk is an important threat for the organizations and implies big costs with risk handling.

Question no. 3 Do you think the extended risk matrix should be used in your area of business?

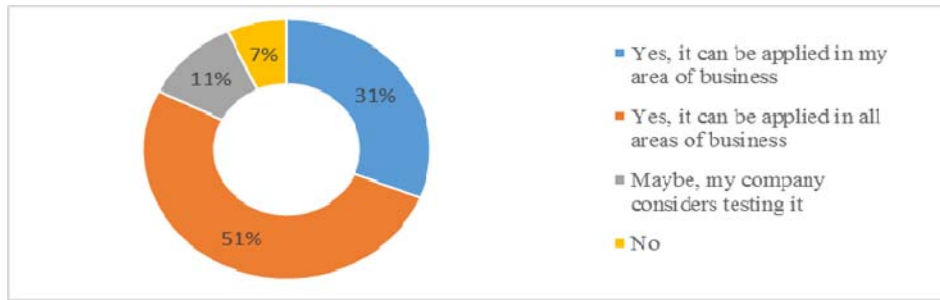


Figure no. 6: Results for Question no. 3

*Results:* More than half of the respondents consider that the extended risk assessment process can be applied to all domains and areas of business. 31% of the managers and specialists consider that the change can be made for their organization, but cannot have a saying considering all other companies.

Question no. 4 Which are the main advantages of using detection as a third attribute in the risk evaluation process?

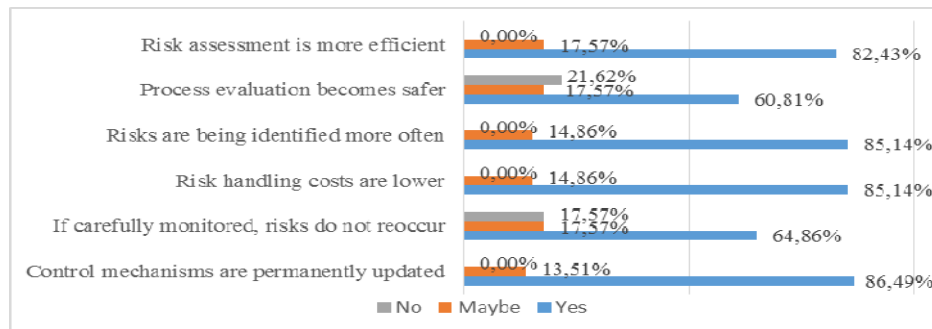


Figure no. 7: Results for Question no. 4

*Results:* Almost 83% of the managers and specialists agree that introducing detection transforms the risk evaluation process into a more efficient one. Also, it is safer to evaluate processes according to almost 61% of the respondents. 85,14% of the interviewees agree that risks are being identified more often and that risk handling costs are lower. Almost 65% of the employees say that careful monitoring usually prevents the reoccurrence of risks and almost 87% consider updated control mechanisms as a real advantage for their company.

Processes are part of the infrastructure of every company and are an essential component in the analysis of corporate performance when it comes to business sustainability (Mateescu (Bejinariu), Buchmüller and Just, 2016). Approximately 60% of the respondents considered that there is a tight bond between a correct and efficient risk assessment process and process evaluation.



Question no. 5 Are risk handling costs reduced by introducing detection in the risk assessment process?

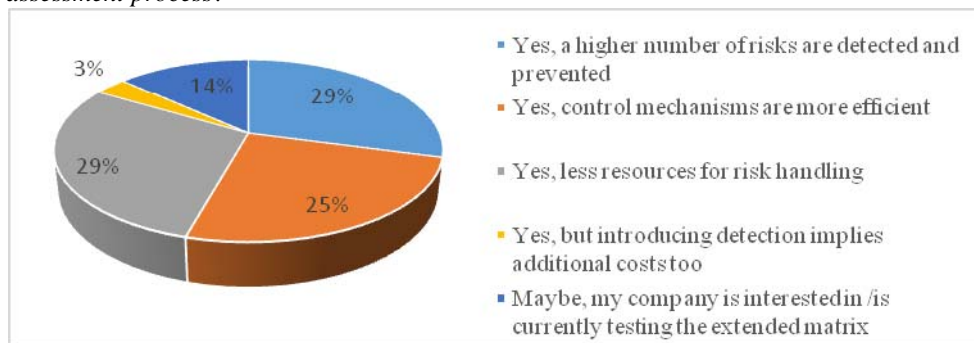


Figure no. 8: Results for Question no. 5

Results: Almost 30% of the respondents answer that more risks are prevented and a lower number of risks need to be handled. Also, control mechanisms are more efficient according to 25% of the managers and specialists. Only 3% of the interviewees mention that introducing detection implies additional costs as well.

Question no. 6 How does your department handle preventing the reoccurrence of risks that have materialized in the past?

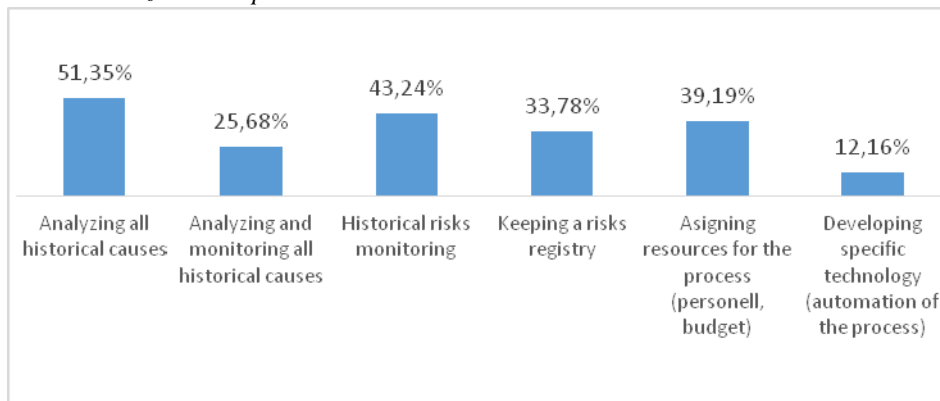


Figure no. 9: Results for Question no. 6

Results: More than half of the managers and specialists answer that their organization prevents risks from reoccurring by analyzing historical causes, but only 25,68% also monitor the identified causes. Almost 45% of the respondents monitor historical risks, while only 33,78% keep these risks in a risks registry. Only 39,19% of the companies have assigned special resources for the process and 12,16% are investing in new automation technology.

### Conclusions

The FMEA-based risk matrix has not been used in all industries because the method mainly relates to technological errors and bases its premises on historical malfunctions. These

errors can be considered the effects of risks that have materialized in the past, that have not been detected on time or at all and that have an unknown cause. Analyzing the effect determines the risk and the cause, therefore the reoccurrence of these negative events can be prevented by analyzing and monitoring the initial cause. Another method of minimizing the materialization of risks is to evaluate the probability of detection by checking on the mechanisms that determine or estimate the probability of occurrence and consequence of the presumed negative event.

Almost half of the companies have already started using the extended risk assessment process and agree that it adds value for the organization. Other companies are still testing it or are interested in extending their risk management process by using FMEA-based elements. More than half of the respondents consider that this method can be used in all areas of business and another 31% say that it can be applied to their industry.

One of the barriers in implementing the new model is budget – most of the organizations have not allocated a budget for the process and have not assigned roles for this process only. When it comes to control mechanisms or risk detection resources, these are not evaluated or monitored in most of the companies, therefore there is a risk in not being able to detect risks correctly and/or on time. Another risk that related to the risk management process is the reoccurrence of risks that have been identified in the past. Despite the fact that managers and specialists agree that risk handling costs increase significantly if risk reoccur and/or even materialize, less than half of the companies monitor historical risks and only a quarter monitor the historical causes for these risks.

Most of the specialists agree that the identification of risks is easier and safer by introducing detection as a third attribute in the risk matrix, leading to a higher number of risks that can be prevented and less negative events to be handled. Another advantage of the extended model is that control mechanisms are being constantly updated, therefore there is no risk that over time these mechanisms do not detect new or more complex risks.

The extended risk matrix is considered as more efficient, applicable to most of the areas of business and saves considerable costs with risk handling costs. The advantages of evaluating the mechanisms that analyze risks are indisputable given the fact that most of the risk identification processes are based on qualitative data rather than quantitative. The proposed extension of the risk assessment process aims to improve the risk management process regarding quality, control and overall profitability of the organization. This paper may bring a contribution to further research on risk management and control mechanisms efficiency.

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## QUANTITATIVE ASPECTS OF ROMANIA'S EXPORTS BY DESTINATION AND THE CATEGORY OF EXPORTED GOODS

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### Abstract

This paper aims at studying the statistical connections regarding the distribution of Romanian exports by destination country and the categories of exported goods.

Using the statistical method of the "factor analysis of correspondences", we included in our analysis two non-numerical variables, i.e. the countries where the goods are exported (from our country) and the categories of exported goods. Thus, we achieved statistical indicators calculated for line-points and column-points, and the graphical representation of these points in the system of factorial axes.

**Keywords:** Factor analysis of correspondences, exported goods, destination country.

**JEL Classification:** I20, C10, C38

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### Introduction

The statistical research on Romania's export value in EU countries, also by the categories of exported goods, according to the Combined Nomenclature, is based on the hypothesis that there are differences or similarities in terms of the export value between the exported goods and the country where these goods are exported.

Our study has the following objectives:

- identifying the structure of the export value by the country where the goods are exported and, at the same time, presenting the differences/ similarities in this respect, among the 27 countries where the goods are exported from Romania;
- identifying the structure of the export value by types of exported goods and the differences/ similarities between the 19 categories of exported goods;
- identifying the profile of the export value specific to each country where the goods are exported, by the categories of exported goods;
- identifying the profile of the export specific to each category of goods, by destination country.

The exports from Romania include free circulation goods, against payment or free of charge, leaving Romania's statistical territory, bound for another EU Member State.

The goods subject to international exchanges are classified according to the Combined Nomenclature (CN), which underpins the Community customs tariff. We focused our

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research on EU member states because Romania's exports are carried out especially with European countries, representing 85.6% of the total export, of which the intra-Community trade with the 27 EU countries represents a share of 73.6% at export.

### **1. Methodology**

The "factor analysis of correspondences" (FAC) is a descriptive method of data multivariate analysis that describes the connections between two nonnumeric (categorical) variables: the countries where our country is exporting goods and the categories of exported goods. The method highlights a factorial axis system that, based on a large data table, concentrates the initial information in a graphical form that can be readily interpreted. The graphical representation is carried out in a small Euclidean space (Spircu, 2005).

The axes are arranged downward, depending on their importance in explaining the total variance of the obtained point cloud (Pintilescu, 2007). The initial information contained in the table is concentrated in a system of factorial axes where there are projected the points represented by the categories of recorded variables. It aims at finding those unrelated orthogonal axes whereon the line point cloud and the column point cloud, respectively, will be projected. This aim is achieved by calculating the eigenvalues of the inertia matrix and the coordinates of the eigenvectors associated to each eigenvalue (Kachigan, 1982).

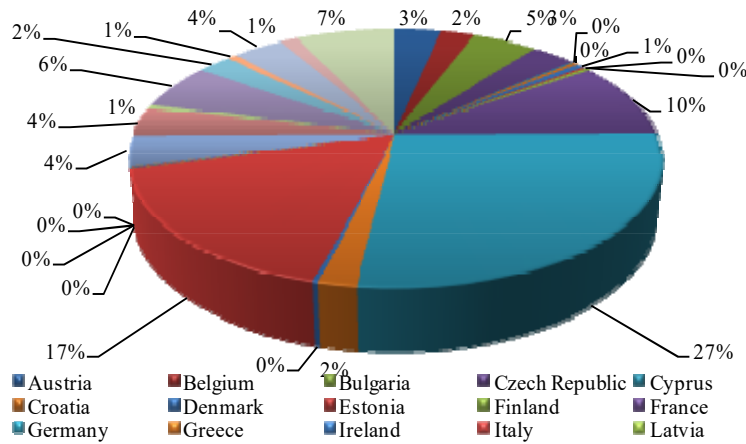
### **2. Data and results**

The data used in the analysis are representative for the calendar year 2014 (which represents our reference period), the latest statistical data being processed, with finality, provided by the National Institute of Statistics of Romania (INS).

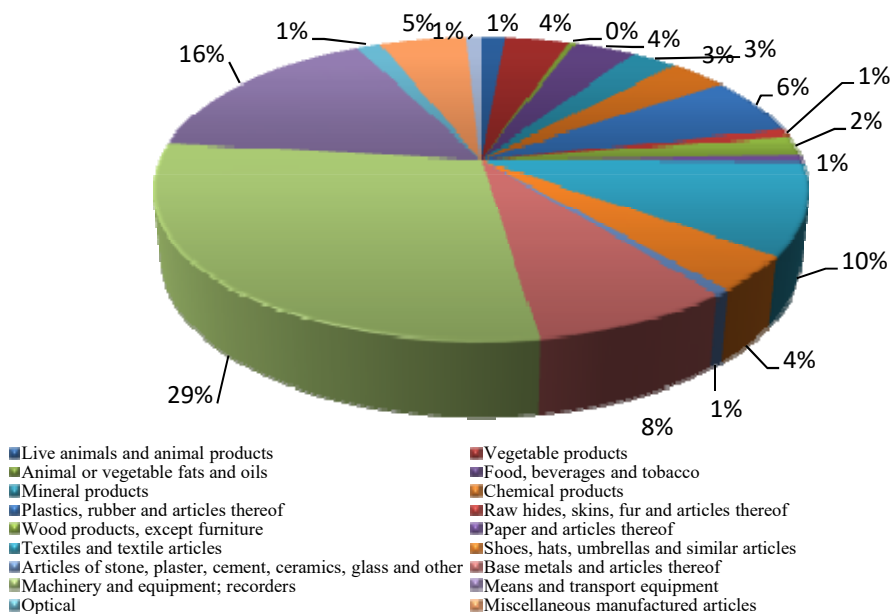
The data processing, the examination of the indicators' significance and the graphical representations were performed by means of the SPSS statistical software (Field, 2009).

After processing the data, we obtained the statistical indicators calculated for the line-points and the column-points, as well as the graphical representation of these points in the system of factorial axes. According to data contained in a correlation table of our country's exports, by destination country (where the goods are exported) and by the categories of exported goods, we can present their distribution by two representative graphs.

The values shown in the graph reveal that the top 10 destination countries for Romanian exports were: Germany (10,099 million Euros) with a share of 27% from total Romanian exports, Italy (6,242 million Euros) with a share of 17% from total Romanian exports, France (3,550 million Euros) with a share of 10%, Hungary (2,672 million Euros) with a share of 7%, UK (2,153 million Euros) with a share of 6%, Bulgaria (1,782 million Euros) with a share of 5%, Spain (1,393 million Euros) with a share of 4%, Netherlands (1,357 million Euros) with a share of 4%, Poland (1,316 million Euros) with a share of 4%, Austria (1,245 million Euros) with a share of 3%, the cumulative share of these countries being 87% of total exports among EU Member States.



**Figure no. 1: The share of exports by the country where the goods are exported**  
 Source: Data provided by the National Institute of Statistics



**Figure no. 2: The share of exports by categories of exported goods**  
 Source: Data provided by the National Institute of Statistics

Structurally, the distribution of exports per goods is as follows: the goods category “Vehicles, apparatus and electric equipment; recorders”, amounting to 10,915 million Euros and representing a share of 29% from total exports, dominates Romania’s portfolio for the export to EU countries. This category is followed by the categories "Transport

means and equipment", amounting to 5,858 million Euros and representing a share 16%; "Textiles and textile articles" amounting to 3,562 million Euros and representing a share of 10%; "Base metals and articles thereof" amounting to 3,146 million Euros and representing a share of 8%; "Plastics, rubber and articles thereof", amounting to 2,308 million Euros and representing a share of 6%; "Miscellaneous manufactured articles", amounting to 1,923 million Euros and representing a share of 5% etc.

In order to apply the factor analysis of correspondences, it is necessary to test the hypothesis of the independence of variables. This test is based on the value calculated for  $\chi^2$  statistics and it requires the formulation of the following statistical hypotheses:

- The null hypothesis,  $H_0$ : the hypothesis of independent variables (there is no connection between statistical variables);
- The alternative hypothesis,  $H_1$ : the hypothesis of dependent variables (there are connections between statistical variables) (Dimitrios, Stephen, 2011).

**Table no. 1: The calculated value of  $\chi^2$  statistics, the eigenvalues and the inertia explained by each factorial axis (Summary output)**

**Summary**

Dimension	Singular Value	Inertia	Chi Square	Sig.	Proportion of Inertia		Confidence Standard Deviation	Singular Value Correlation 2
					Accounted for	Cumulative		
1	.448	.201			.374	.374	.000	.009
2	.387	.150			.280	.654	.000	
3	.256	.066			.122	.776		
4	.176	.031			.058	.834		
5	.142	.020			.037	.871		
6	.133	.018			.033	.904		
7	.112	.013			.024	.927		
8	.097	.009			.017	.945		
9	.090	.008			.015	.960		
10	.086	.007			.014	.974		
11	.070	.005			.009	.983		
12	.057	.003			.006	.989		
13	.049	.002			.005	.993		
14	.037	.001			.003	.996		
15	.037	.001			.003	.999		
16	.020	.000			.001	.999		
17	.015	.000			.000	1.000		
18	.010	.000			.000	1.000		
Total		.536	20006559.284	.000 <sup>a</sup>	1.000	1.000		

a. 468 degrees of freedom

Source: SPSS processing, based on data from the National Institute of Statistics

- The calculated value of test statistics, shown in Table no. 1, column Chi Square, is  $\chi^2=20006559.284$ , higher than the tabulated value  $\chi^2_{0.05;468}$  (for the risk of 0.05 and  $v=468$  degrees of freedom) or  $\text{Sig.} = 0.000 < 0.05$ , which shows that  $H_0$  hypothesis is rejected. Thus, with a probability of 95%, we can guarantee that, in terms of Romania's "export" value, there are connections between the variables considered, i.e. between the country where the goods are exported and the categories of exported goods. These connections will be described by the results achieved subsequent to the application of the factor

analysis of correspondences, for line-profiles and column-profiles, respectively.

- The highest eigenvalue (column *Inertia*) shows the variance of the first factorial axis and the sum of eigenvalues measures the total inertia of the point cloud.
- For the output shown in Table no. 1, the highest eigenvalue (column *Inertia*) is 0.201. The sum of eigenvalues is 0.536 (total variance). The inertia (variance) explained by each factorial axis is shown in the column *Proportion of Inertia*. The first factorial axis explains 37.4% of the total variance. The choice of the number of factorial axes is made, in FAC, according to Benzécri's criterion (Benzecri, 1992): we will choose those factorial axes that explain at least 70% of the total variance. In this situation, we will need 3 factorial axes that explain together 77.6% of the total variance.

For each category of variables, we will calculate the coordinates on factorial axes, the contributions of points to the inertia of an axis and the contributions of axes to the inertia of a point (no table 2) (Everitt, Dunn, 2001).

The coordinates of line-points on factorial axes show their position in the space represented by the axes. Considering the distribution "country where the goods are exported" and "categories of exported goods" (Table no. 2), the output *Overview Row Points* is as follows:

**Table no 2. The results regarding LINE-points (the country where the goods are exported)**

**Overview Row Points<sup>a</sup>**

Country	Mass	Score in Dimension		Inertia	Contribution				
		1	2		Of Point to Inertia of Dimension		Of Dimension to Inertia of Point		
					1	2	1	2	Total
Austria	.033	-.147	-.510	.021	.002	.022	.016	.163	.178
Belgium	.024	-.183	.248	.004	.002	.004	.080	.127	.207
Bulgaria	.048	<b>1.965</b>	<b>.133</b>	.088	<b>.412</b>	.002	.936	.004	.940
Czech Republic	.032	-.184	.600	.008	.002	.029	.057	.521	.578
Cyprus	.002	.804	-1.097	.006	.002	.005	.078	.125	.203
Croatia	.004	.992	-.330	.009	.008	.001	.182	.017	.199
Denmark	.006	.057	-.209	.003	.000	.001	.003	.031	.034
Estonia	.002	1.121	-.065	.010	.005	.000	.114	.000	.114
Finland	.004	-.405	.743	.003	.001	.005	.100	.292	.392
France	.095	-.385	.237	.016	.031	.014	.387	.126	.513
Germany	.271	<b>-.418</b>	<b>.519</b>	.057	<b>.106</b>	<b>.188</b>	.374	.497	.871
Greece	.020	<b>2.287</b>	<b>.103</b>	.051	<b>.231</b>	.001	.913	.002	.915
Ireland	.003	-.272	.069	.002	.000	.000	.041	.002	.044
Italy	.167	<b>-1.152</b>	<b>-1.267</b>	.108	.009	<b>.693</b>	.016	.963	.979
Latvia	.001	-.029	-.717	.001	.000	.001	.000	.161	.161
Lithuania	.001	.539	-.513	.002	.001	.001	.072	.056	.129
Luxembourg	.000	-.002	-.889	.001	.000	.001	.000	.113	.113
Malta	.001	2.523	.405	.003	.010	.000	.663	.015	.678
Netherlands	.036	-.076	.062	.020	.000	.000	.005	.003	.007
Poland	.035	-.027	.207	.009	.000	.004	.001	.066	.067
Portugal	.005	.086	-.059	.018	.000	.000	.001	.000	.001
UK	.058	-.401	-.029	.017	.021	.000	.243	.001	.244
Slovakia	.025	.205	.096	.006	.002	.001	.073	.014	.087
Slovenia	.007	.037	.403	.002	.000	.003	.002	.184	.186



Spain	.037	-.031	-.117	.016	.000	.001	.001	.012	.013
Sweden	.013	-.292	.205	.013	.002	.001	.037	.016	.052
Hungary	.072	<b>.973</b>	<b>.338</b>	.041	<b>.151</b>	.021	.733	.077	.809
Active Total	1.000			.536	1.000	1.000			

a. Symmetrical normalization

Source: SPSS processing, based on data from the National Institute of Statistics

By analyzing the values of the coordinates of the points on the factorial axes in Table 2, we highlighted the countries among which there are the greatest differences in terms of exported goods, namely between Bulgaria and Germany, Germany and Greece, Italy and Bulgaria and so on. These points will be situated at the ends of the graph and in different quadrants. Regarding the structure of exported goods, we notice similarities between Austria, Italy, UK, Spain, and between France, Germany, Finland, and Sweden.

**Table no 3: The results regarding LINE-points (categories of exported goods) Overview Column Points<sup>a</sup>**

Categories of exported goods	Mass	Score in Dimension		Inertia	Contribution				
		1	2		Of Point to Inertia of Dimension		Of Dimension to Inertia of Point		
					1	2	1	2	Total
		1	2		1	2	Total		
Live animals and animal products	.015	1.555	-.138	.026	<b>.078</b>	.001	.611	.004	.615
Vegetable products	.038	.359	-.298	.059	.011	.009	.038	.023	.060
Animal or vegetable fats and oils	.004	1.577	.016	.007	.021	.000	.605	.000	.605
Food, beverages and tobacco	.036	.602	-1.253	.031	.029	<b>.146</b>	.188	.705	.892
Mineral products	.027	<b>2.916</b>	<b>.548</b>	.112	<b>.515</b>	.021	.920	.028	.948
Chemical products	.034	<b>.808</b>	<b>.282</b>	.020	.049	.007	.503	.053	.556
Plastics, rubber and items thereof	.062	.161	.199	.007	.004	.006	.104	.138	.242
Rawhides, tanned hides, fur and items thereof	.008	-.299	-1.940	.014	.002	.076	.023	.836	.859
Wood products, except furniture	.021	.205	-.542	.013	.002	.016	.032	.195	.227
Paper and items thereof	.007	<b>1.237</b>	<b>.272</b>	.007	.025	.001	.693	.029	.722
Textiles and textile items	.095	-.417	-.790	.045	.037	<b>.154</b>	.167	.518	.685
Shoes, hats, umbrellas and similar items	.038	-.236	-1.892	.065	.005	<b>.347</b>	.015	.806	.820
Articles of stone, plaster, cement, ceramics, glass and other	.006	.710	.149	.003	.007	.000	.450	.017	.467
Base metals and articles thereof	.084	.500	.017	.019	.047	.000	.491	.001	.491
Machinery, apparatuses and electric equipment; recorders	.293	-.308	.421	.043	<b>.062</b>	<b>.134</b>	.292	.473	.765
Transport means and equipment	.157	-.502	.391	.033	<b>.088</b>	.062	.537	.281	.818
Optical instruments and apparatuses	.014	-.175	.374	.006	.001	.005	.031	.121	.152
Miscellaneous goods and products	.052	-.373	.134	.012	.016	.002	.275	.031	.306
Other products unmentioned elsewhere	.008	.124	-.717	.016	.000	.011	.004	.104	.108
Active Total	1.000			.536	1.000	1.000			

a. Symmetrical normalization

Source: SPSS processing, based on data from the National Institute of Statistics

By analyzing the values of the coordinates of the points on factorial axes, we highlighted the goods among which there are the greatest differences and similarities, respectively, in terms of the country where the goods are exported.

It is noteworthy that the greatest differences are recorded between the categories "Live animals and animal products", "Rawhides, tanned hides, fur and articles thereof" and so on. Similarities, rapprochements were highlighted between the categories "Rawhides, tanned hides, fur and articles thereof", "Textiles and textile items", "Shoes, hats, umbrellas and similar items" and between the categories "Mineral products", "Chemical products", "Paper and items thereof".

**Conclusions**

The graphical representation, which is actually a review of the previous results, allows viewing the position of the variables in the system of the factorial axes, identifying the direction and the intensity of the relationships between variables. The graphs highlight easier the position of variables in the system of factorial axes and identify the direction and the intensity of the connections between the analyzed variables.

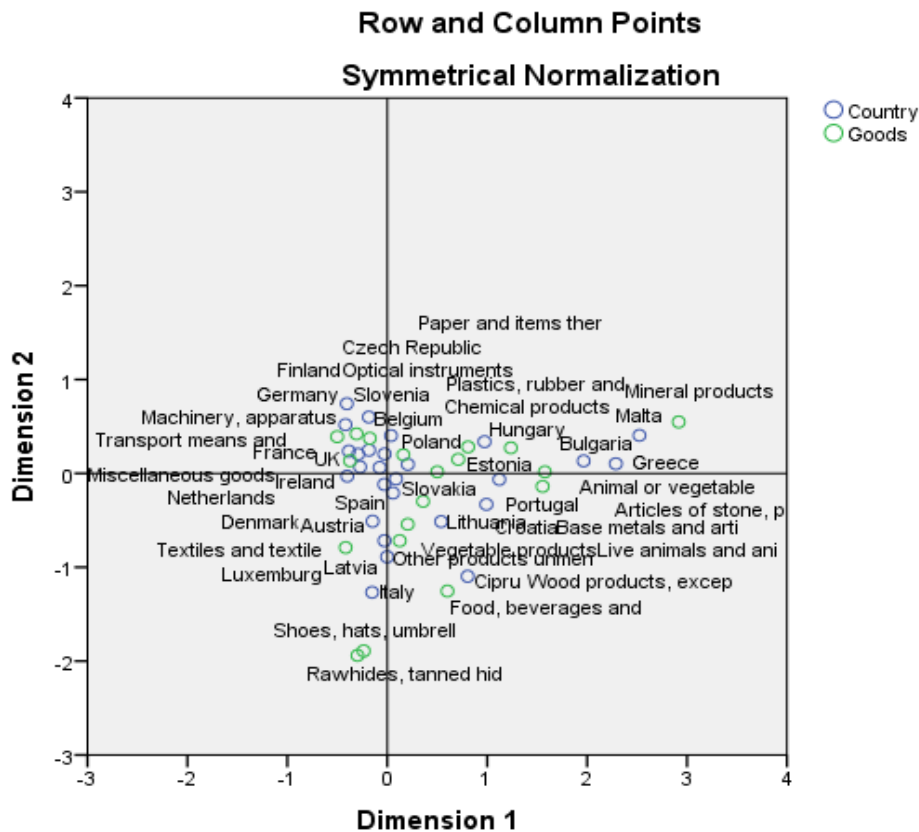


Figure no. 3: The graphical representation of the variables' position in the system of factorial axes using option Column Principal Normalization

We believe that using the FAC method in our study provided us the opportunity to formulate the following statements:

- With a probability of 95%, we found that, in terms of Romania's export value, there are connections between the variables considered, namely between the country where the goods are exported and the category of exported goods;
- We could identify the countries among which there are the greatest differences, in terms of the category of required goods;
- By analyzing the values of the coordinates of the points on factorial axes, we have identified the categories of goods among which there are the greatest differences at country level;
- We noticed that, by grouping the countries with a similar distribution (a similar structure), we achieved, in fact, a segmentation of the export market; this allowed us to identify the main segments of countries with similar structures, through which similar or identical promotion strategies can be devised for each segment.

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## **FACTORIAL CORRESPONDENCES IN THE TOURISM SERVICES PROVIDED TO THE POPULATION IN ROMANIA**

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### **Abstract**

In the recent years, the tourism industry has shaped an increasingly important role in our country's economy, undergoing a significant modernization and diversification process of the tourist services provided to the population.

This paper aims at revealing and analyzing the service types or the tourism accommodation structures prevailing on the tourism market, in terms of data statistical analysis. Assuming that the primary purpose of any business is to maximize profits, we analyzed, across time, the tourism service providers' orientation towards those activity types that they considered opportune in order to attract a large number of clients. Our data analysis enabled us to establish a hierarchy of preferences in terms of tourism offers and to observe several similarities between tourism activity types.

The conclusions of our study showed that, in our country, the predominant services from the tourism sector are represented by the restaurant segment, in contrast with the other elements of the tourist accommodation structure, which may indicate the need for a coherent strategy applied in tourism nationwide, possibly in modernizing the infrastructure and the other services on the tourism market.

### **Keywords**

Factor analysis of correspondences, tourism services, tourism accommodation structures

### **JEL Classification**

I20, L83, C10, C38

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### **Introduction**

The tourism potential of a country undergoes different influences, both in terms of demographic resources, history or stage of civilization, and also in terms of policies, coherence of the strategies applied on the market or the general economic framework.

The reciprocal relationship between tourism and economic development is strongly proven across Europe, which has enshrined its global leadership position in terms of tourist traffic and which has become, in this way, a model of regional economic integration.

According to the statistics at European level, Romania still plays a modest role in the hierarchy of tourist destinations, although its demographic, natural and anthropogenic

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potential could create the prerequisites for a significant tourism potential.

According to the statistical data provided at the level of our country and derived from the analysis of the tourism offer, based on the study of the websites in the field, this study has identified as relevant for the analytical processing the following manifestation forms of tourism services and accommodation structures nationwide: Hotels and other similar accommodation facilities (hostels, motels); Accommodation facilities for holiday and short-term periods; Caravan parks, campgrounds and camps; Other accommodation services (apartments, family business); Restaurants; Catering for events and other services; Bars and beverage serving activities; Activities of travel agencies and tour operators; Activities of travel agencies and tour operators.

The literature has not indicated so far a universally valid model of a successful tourism strategy. The tourism industry of each country progresses according to its natural resources, applied strategies, culture and traditions, which undergo many local influences. (Woods, 1996)

### **1. Methodology**

The "factor analysis of correspondences" (FAC) is a descriptive method of data multivariate analysis, to be applied in particular for data presented in the form of contingency tables.

Data on two variables respectively "year" and "tourism services provided to population, per activities" are projected by points concentrated in a factorial axes system. So, the line point cloud and the column point cloud, respectively, will be projected on unrelated orthogonal axes (Spircu, 2005). To find these axes, we calculated the eigenvalues of the inertia matrix and the coordinates of the eigenvectors associated to each eigenvalue (Pintilescu, 2007).

To assign a sense of distance between the line-points and the column-points, the relative frequencies are used, thereby to give "profiles" of the lines and respectively of the columns, through the usual transformations of descriptive statistics (Kachigan, 1982).

### **2. Data and results**

In order to perform the factor analysis of correspondences method, in terms of the indicator "Tourism services provided to population by activities", by service category and years, we included two nonnumeric variables in our analysis, i.e. "service category" and "years". Subsequent to data processing by the "factor analysis of correspondences", we obtained the statistical indicators calculated for the line-points and the column-points and the graphical representation of these points in the system of factorial axes.

Graph no 1 shows the distribution of the value of the tourism services provided to population by activity type, the statistical series data being processed, provided by the National Institute of Statistics of Romania (NIS), for 2008-2015 timeframe.

In order to obtain a conclusive result, I used the data on the average euro exchange rate set by the National Bank of Romania (NBR).

The data processing, the examination of the indicators' significance and the graphical representations were performed by means of the SPSS statistical software (Field, 2009).

The analysis of the global sector for tourist services highlights the lack of training of the organizational framework and the lack of an adequate strategy for absorbing and developing in an increased pace the tourist flows.

**Table no 1: Table line profile (output-up Row Profiles)  
Row Profiles**

Year	Tourism services provided to population, per activities									
	Hotels and other similar accommodation facilities	Accommodation facilities for holiday and short-term periods	Caravan parks, campgrounds and camps	Other accommodation services	Restaurants	Catering for events and other services	Bars and beverage serving activities	Activities of travel agencies and tour operators	Other reservation services and tourism assistance	Active Margin
2008	.213	.027	.003	.015	.323	.062	.142	.212	.003	1.000
2009	.202	.014	.002	.034	.364	.048	.141	.189	.005	1.000
2010	.205	.012	.004	.039	.353	.058	.130	.196	.004	1.000
2011	.215	.015	.003	.040	.350	.053	.116	.208	.000	1.000
2012	.178	.014	.001	.058	.350	.046	.123	.218	.013	1.000
2013	.183	.012	.001	.019	.406	.046	.117	.208	.007	1.000
2014	.173	.013	.001	.020	.426	.042	.114	.203	.008	1.000
2015	.188	.014	.001	.018	.420	.046	.106	.200	.007	1.000
Mass	.194	.015	.002	.029	.377	.050	.123	.205	.006	

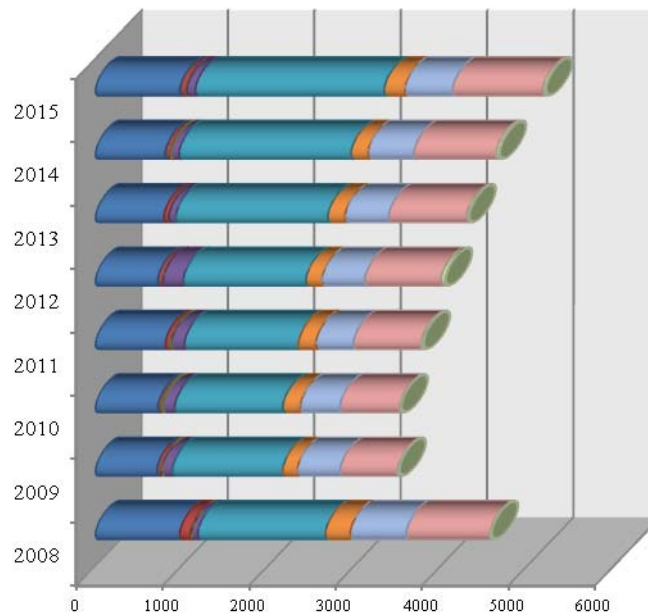
Source: SPSS processing, based on data from the National Institute of Statistics

**Table no 2: Table Column Profiles (output-up Column Profiles)  
Column Profiles**

Year	Tourism services provided to population, per activities									
	Hotels and other similar accommodation facilities	Accommodation facilities for holiday and short-term periods	Caravan parks, campgrounds and camps	Other accommodation services	Restaurants	Catering for events and other services	Bars and beverage serving activities	Activities of travel agencies and tour operators	Other reservation services and tourism assistance	Mass
2008	.150	.243	.179	.069	.117	.169	.158	.141	.068	.136
2009	.109	.098	.118	.123	.101	.101	.120	.096	.090	.104
2010	.111	.084	.188	.140	.099	.122	.111	.101	.066	.105
2011	.124	.107	.183	.154	.104	.118	.106	.114	.000	.112
2012	.111	.110	.082	.238	.112	.110	.120	.128	.262	.120
2013	.121	.100	.093	.083	.139	.119	.122	.131	.153	.128
2014	.124	.117	.063	.096	.157	.117	.129	.138	.188	.139
2015	.150	.141	.093	.097	.172	.144	.133	.151	.173	.155
Active Margin	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	

Source: SPSS processing, based on data from the National Institute of Statistics

**Figure no. 1: The correlation table for the value of the tourism services provided to population per years, by activity type (million Euros)**



	2008	2009	2010	2011	2012	2013	2014	2015
Hotels and other similar accommodation facilities	976,81	710,33	723,72	810,5	721,7	791,79	809,23	978,65
Accommodation facilities for holiday and short-term periods	125,7	50,62	43,21	55,59	56,64	51,64	60,64	73,14
Caravan parks, campgrounds and camps	11,97	7,93	12,57	12,27	5,52	6,25	4,21	6,23
Other accommodation services	68,24	121,07	138,29	151,42	233,98	81,81	94,16	95,61
Restaurants	1478,26	1276,99	1248,39	1320,37	1417,08	1756,03	1988,32	2185,67
Catering for events and other services	283,87	169,16	203,69	198,09	184,25	199,14	196,44	241,78
Bars and beverage serving activities	650,34	495,2	459,3	437,24	496,39	505,14	531,81	550,53
Activities of travel agencies and tour operators	970,97	663,23	693,18	782,93	880,48	899,75	950,64	1042,59
Other reservation services and tourism assistance	13,5	17,82	13,09	24,16	51,99	30,35	37,3	34,35

Source: Processing based on data from the National Institute of Statistics

After 2008, the total value of services has decreased by 23% in 2009, followed by a return only in 2014 the amount reached like in 2008.

The increase by 11 percent the year 2015 than in 2014 proves that this sector increasingly needs a new tourism policy model that influences their competitive position in the current competitive conditions.

In order to apply the factor analysis of correspondences, it is necessary to test the hypothesis of the independence between the variables studied, i.e. service category and

years. This hypothesis is tested based on the calculated statistics  $\chi^2$  and it requires formulation of the following statistical hypotheses:

- the null hypothesis,  $H_0$ : the hypothesis of the variables' independence (there is no connection between activity types and years);
- the alternative hypothesis,  $H_1$ : the hypothesis of the variables' dependence (there are connections between activity types and years) (Dimitrios, Stephen, 2016).

The very high calculated value of the test statistics presented in Table no 3, Column Chi Square, and  $\chi^2$  and sig = 0.000 < 0.05 indicates that the hypothesis  $H_0$  is rejected. Thus, with a probability of 95%, we can ensure that, in terms of the tourism services provided to the population, there is a connection between the variables considered, namely between the activity type and year.

The connections between these variables will be described by the results achieved by the factor analysis of correspondences for the line-profiles and the column-profiles, respectively.

**Table no 3: The calculated value of  $\chi^2$  statistics, the eigenvalues and the inertia explained by each factorial axis (Summary output)**  
Summary

Dimension	Singular Value	Inertia	Chi Square	Sig.	Proportion of Inertia		Confidence Singular Value	
					Accounted for	Cumulative	Standard Deviation	Correlation 2
1	.092	.008			.466	.466	.005	.112
2	.084	.007			.388	.853	.006	
3	.042	.002			.099	.952		
4	.024	.001			.033	.985		
5	.012	.000			.008	.993		
6	.010	.000			.005	.999		
7	.005	.000			.001	1.000		
Total		.018	606.131	.000 <sup>a</sup>	1.000	1.000		

a. 56 degrees of freedom

Source: SPSS processing, based on data from the National Institute of Statistics

In the factorial analysis, the main objective is to find the axis that highlights the greatest differences between statistical units, by the variables recorded. The first factorial axis is the one with the maximum value obtained for the inertia (spreading) of the point cloud explained by this axis. Basically, on this axis, there are grouped the units with the highest spreading. Each factorial axis is ranked in the descending order of the dispersions of the individuals' projections on these axes.

The eigenvalues represent the variance explained by each factorial axis, and the eigenvectors associated to these values define the factorial axes.

The greatest eigenvalue (column inertia) shows the variance of the first factorial axis, and the sum of the eigenvalues measure total inertia of the point cloud.

The inertia (variance) explained by each factorial axis is shown in the column *Proportion of Inertia*. The first factorial axis explains 46.6% of the total variance and the second factorial



axis explains 38.8%. We chose the number of the factorial axes in the FAC in accordance with Benzecri's criterion, i.e. we chose those factorial axes that explain at least 70% of the total variance. (Benzecri, 1992)

In this situation, we needed two factorial axes (85.3%).

**Table no 4: The FAC results in terms of the variable "years"  
Overview Row Points<sup>a</sup>**

Year	Mass	Score in Dimension		Inertia	Contribution				
		1	2		Of Point to Inertia of Dimension		Of Dimension to Inertia of Point		
					1	2	1	2	Total
2008	.136	-.133	.592	.005	.026	.570	.048	.857	.904
2009	.104	-.159	.021	.001	.029	.001	.389	.006	.395
2010	.105	-.274	.017	.001	.086	.000	.681	.002	.683
2011	.112	-.290	.073	.002	.103	.007	.498	.029	.526
2012	.120	-.401	-.515	.005	.211	.382	.363	.546	.909
2013	.128	.290	-.038	.001	.118	.002	.927	.015	.942
2014	.139	.375	-.145	.002	.214	.035	.863	.117	.979
2015	.155	.355	-.036	.002	.213	.002	.933	.009	.942
Active Total	1.000			.018	1.000	1.000			

a. Symmetrical normalization

Source: SPSS processing, based on data from the National Institute of Statistics

By analyzing the values of the contributions of points on factorial axes, as shown in Table no 4 (column Contribution of Point to Inertia of Dimension), we highlighted the years among which there are differences in terms of service value per years, namely between 2012 and 2015, between 2008 and 2014, and between 2008 and 2015. These points will be located in different quadrants (see Figure no 1). Similarities in terms of service value per years are registered between the following years: 2014 and 2015, 2008.

The contribution of a point to the inertia explained for a factorial axis (Column *Contribution of Point to Inertia of Dimension*) shows the contribution of the category (year) to the dispersion of the factorial axis. The points with high contributions on a factorial axis (those with a contribution greater than  $1/m=1/8=0,125$ ) are those points that contribute to the formation of the respective axis (column *Contribution of Point to Inertia of Dimension*, Table no 4). These are called points that explain the formation of the respective axis, being the ones that exercise the greatest influence in shaping the profile (structure) of the activity type per years. (Everitt, Dunn, 2001)

By analyzing the values of the point coordinates on the factorial axes, we highlighted the activity types among which there are the greatest differences or similarities.

Table no 5 reveals that the greatest differences are the registered between the following activity types: "Other accommodation services" and "Restaurants"; "Accommodation facilities for holidays and short-term periods" and "Restaurants"; "Other reservation

services and tourism assistance" and "Accommodation facilities for holidays and short-term periods". Moreover, "Other reservation services and tourism assistance" distances itself clearly from all the other analyzed categories, being located at the chart's extremity (see Figure no 1).

Also, by analyzing the results obtained and presented in Table no5, we can appreciate that "Accommodation facilities for holidays and short-term periods" and "Other accommodation services" contribute to the second factorial axis (the second group in terms of scattering), by 13.9% and 37%, respectively (column Contribution of Point to Inertia of Dimension 2). By analyzing the coordinates of these points (columns Score in Dimension 1 and 2), we revealed that there are differences per years in terms of activity types between these categories.

**Table no 5: The FAC results in terms of the variable "activity type"**  
**Overview Column Points<sup>a</sup>**

Tourism services provided to population, per activities	Mass	Score in Dimension		Inertia	Contribution				
		1	2		Of Point to Inertia of Dimension		Of Dimension to Inertia of Point		
					1	2	1	2	Total
Hotels and other similar accommodation facilities	.194	-.143	.200	.001	.043	.093	.307	.546	.854
Accommodation facilities for holiday and short-term periods	.015	<b>-.249</b>	<b>.870</b>	.002	.010	<b>.139</b>	.056	.627	.684
Caravan parks, campgrounds and camps	.002	-1.055	.792	.000	.024	.015	.478	.246	.724
<b>Other accommodation services</b>	.029	<b>-1.232</b>	<b>-1.028</b>	.007	<b>.485</b>	<b>.370</b>	.607	.386	.992
<b>Restaurants</b>	.377	<b>.291</b>	<b>-.138</b>	.004	<b>.347</b>	.086	.804	.165	.969
Catering for events and other services	.050	-.226	.354	.001	.028	.075	.277	.620	.897
Bars and beverage serving activities	.123	-.201	.181	.001	.054	.048	.355	.265	.620
Activities of travel agencies and tour operators	.205	-.028	-.011	.000	.002	.000	.044	.007	.051
Other reservation services and tourism assistance	.006	.325	-1.569	.002	.007	.174	.027	.582	.609
Total assets	1.000			.018	1.000	1.000			

a. Symmetrical normalization

Source: SPSS processing, based on data from the National Institute of Statistics

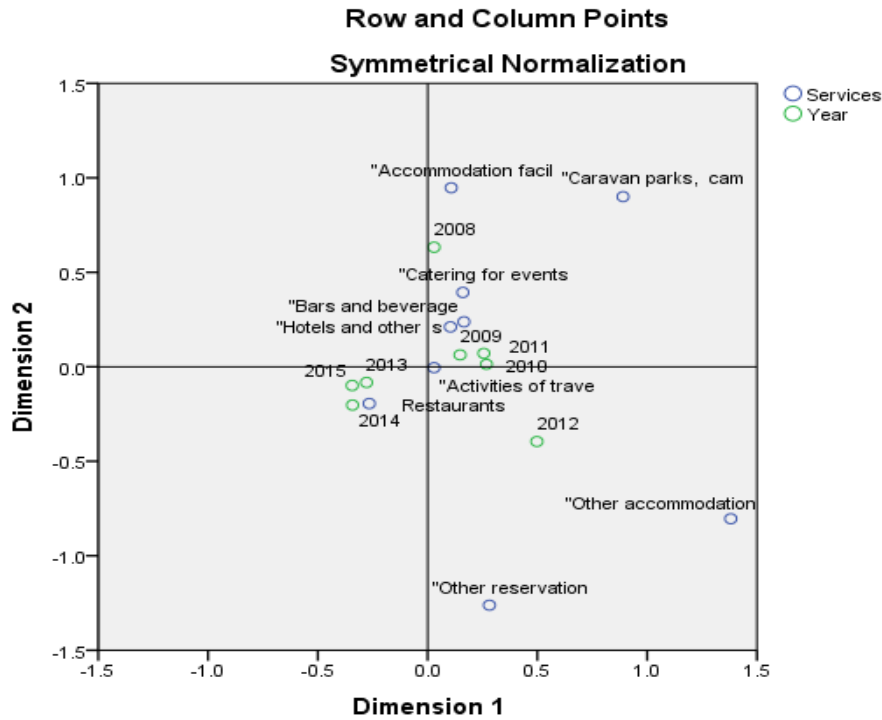
**Conclusion**

The FAC method allows us to state (with a probability of 95%) that, in terms of the value of the tourism services provided to population, there are connections between the variables considered, namely between activity types and years.

The diagram below summarizes synthetically, in a very suggestive manner, the previous conclusions that allowed us:

- to determine the importance paid to each activity type, every year, separately;
- to hierarchize the types of the tourism activities provided to population, every year, identifying a number of similarities and differences between different categories;
- to note the similarities or differences between activity types, at the level of each year.

The conclusions of our study showed that, in our country, the predominant services from the tourism sector are represented by the restaurant segment, in contrast with the other elements of the tourist accommodation structure, which may indicate the need for a coherent strategy applied in tourism nationwide, possibly in modernizing the infrastructure and the other services on the tourism market.



**Figure no. 2: The graphical representation of the variables' position in the system of factorial axes using option Column Principal Normalization**

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## ISSUES RELATED TO THE REAL SALARY INCOME INDEX IN PUBLIC AND PRIVATE SECTORS

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### **Abstract**

"Real salary income" is a statistical indicator widely used for measuring the employed population's power to buy or use goods or services, based on the average net monthly salary income.

The purpose of this paper is to analyze "the real salary income" depending on the ownership of the employer. The public and the private forms of enterprises are mostly observed in order to facilitate the assessment of potential disparities related to the purchasing power of the employees in both sectors. By analyzing the statistical data and information, the study observes both the level and the evolution of employment in terms of the legal form of labor organization. The paper is focused on a practical approach on the income formation and evolution that provides valuable insights on the differences in consumption trends in the public and the private sectors.

The interpretation of the index progression shows that in Romania, over time, there has been persisting an atypical relationship of superiority of the salary income in the public sector compared to the one in the private sector, although the engine of economic functioning finds its sustainability in the activity of private entities.

**Keywords:** real salary income, public property, private property, consumer trends

**JEL Classification:** C10, J30, J31, M50

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### **Introduction**

The research conducted by the Organization of Economic Cooperation and Development (OECD) shows that Romania is the country with the greatest number of companies where the state holds the majority of participating interests, from the entire European Union. In addition, they reveal that Romanian public entities have a significant impact on domestic economy, given the large number of public enterprises (1,525 on 6/30/2014), the significant share in the Gross Domestic Product (11.4% of the GDP in 2013) and the large number of employees (7.5% of the country's active population) (Dochia et.al., 2014).

Moreover, according to European statistics, Romania is the second country, after Slovenia, with the largest number of employees who earn less than 105% of the minimum salary per economy. (Eurostat, 2017).

Taking into consideration the hereby statistical data, the paper focuses on the comparative analysis of the average salary income in the public sector and the average salary income in the private sector. The evolution of the indicators reveal different patterns and indicate disparate proportions of the purchasing power of the two categories of employees, given the same local market conditions.

### **1. General and specific concepts for the calculation of the real salary income index**

The real salary income index indicates the purchasing power of the achieved salary income and it is calculate based on the ratio between "the average net nominal salary income index" and "the general index of consumer prices". The result of the two variables expresses, as a percentage, the value of the goods and services that can be purchased from the net average salary income in terms of market prices, in a timeframe that can be compared to other periods.

The average net salary income is the mathematical expression of the average gross salary income minus the amount of taxes, contributions to the state social insurance, health insurance and unemployment fund. The mathematical expression of this indicator is represented by the ratio between the net amounts paid by employers to their employees during the reference period (in this case, the calendar year) and the average number of employees.

The average number of employees is determined by a simple arithmetic mean calculated based on the daily numbers of employees in the respective month. The average number of employees includes the persons who were paid during the reference period, and the employees who are not full-time employees and who are included in the calculation proportionally to the working time stipulated in the employment contract. The average number of employees indicator does not include the employed persons on leave without pay, on strike, detached to work abroad and those whose employment contract or relationship was suspended (Institutul Național de Statistică, 2017).

The annual index of consumer prices used in providing statistical data at the level of our country is an economic indicator that aims at measuring the overall evolution of the prices for the purchased goods and of the tariffs for the services used by the population in a current time horizon, compared to a previous period. In the literature, this indicator is recognized as a Laspeyres-type index with a fixed base, which, in calculations, uses the goods representative of the population's consumption basket (considered as food items, non-food items and services) and the price levels in the current and reference periods.

### **2. The methodology used for the analysis of the real salary income index in the public and private subdivisions**

The information processed in this paper is based on the latest data provided by the National Institute of Statistics of Romania (NIS), the National Bank of Romania, European Union Council Regulation no. 530/1999 concerning the structural statistics on the salary income and the labor costs, as well as the research studies published in the field.

For a better understanding of the hypothesis of this study, the research methodology is illustrated with a series of graphs and tables.

In order to meet our objective, the statistical information have been processed in order to identify the connection or differentiation between the evolution of employment levels in the public and private sectors, the premises of the evolutionary trend of the real salary, granting the investigation of consumer trends.

The paper appoints the period between the years 2010 and 2015 as the reference for the accrued data.

### 3. Research results

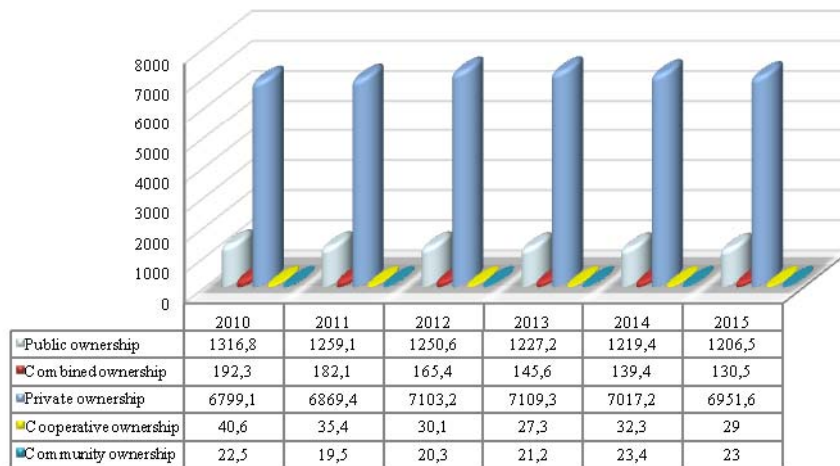
In Romania, civilian employment is calculated based on statistical methodologies and it includes the total number of people who normally pursue economic or social activities producing income in cash, in kind or of any other nature, based on the labor contract or independently. Thus, according to the workforce balance, the civilian employed population is determined by the following mathematical formulas:

$$POCvl = S + P + Lcp + Lfn \quad (1)$$

where:

- POCvl - civilian employed population
- S - employees or people who work under an individual labor contract, in an economic or social entity, in exchange for a salary or a salary assimilated income, in cash or in kind;
- P - employers or persons who work in their own entity, with one or more employees;
- Lcp - self-employed persons or persons who work in their own entity, with their own equipment or based on their professional training, without hiring employees, but with the possibility of seeking the help of unpaid family members;
- Lfn - unpaid family workers or people who work in a family economic entity headed by a family member, wherefore s/he does not earn salary income or payment in kind.

Between 2010-2015, the civilian employed population categorized by national economy activities and by forms of property are presented as follows:



**Figure no. 1 : The civilian employed population cathegorised by national economy activities and by forms of property**

Source: National Institute of Statistics

The graphical analysis of the structure of the employed civilian population reveals that, nationwide, the population's activity takes place mainly in private sector entities, followed by the public sector and the mixed one. The activities within cooperative or community ownership entities (these are particular forms of ownership described as a form of ownership in the local regulations) represent a very low presence in the national economy. In structural terms, the civilian employed population is represented mainly by people working in private ownership entities, the share of the persons employed in this sector being about 83% over the analyzed period. The next sector of significant importance in terms of workforce analysis is represented by the public property, where the share of the employed persons is around 14% in the reference time horizon, in relation to the total number of civilian employed persons. The activity conducted in cooperative or community ownership forms is underrepresented nationally, each recording a percentage of up to 1% of the total civilian employed population during 2010-2015.

By processing the statistical information, we found out that the employment level of the civilian population had a fluctuating evolution, with a decreasing trend throughout the analyzed period: if in 2010 the civilian employed population totaled 8,371.3 thousand persons, in 2012 it reached the maximum level of the period, i.e. the number of employed persons was 8,569.6 thousand, and in 2015 the indicator decreased to 8,340.6 thousand persons. The statistically calculated civilian employed population in 2015 was by 0.37% lower than in 2013.

The downward trend in the employed civilian population showed a steady downward evolution in the entities where the state had a majority or full participation, amid the repeated restructuring of the public sector. The evolution of the employment in the private sector experienced an upward trajectory until 2013, followed by a decrease in the number of the employed persons during 2014-2015.

The employment degree in the cooperative sector was characterized by a steady decline, while in the common ownership sector it showed a fluctuating trend, with a slight increase towards the end of the analyzed period. A common feature of cooperative or common ownership entities was represented by the fact that the number of active persons is insignificant compared to other forms of legal organization.

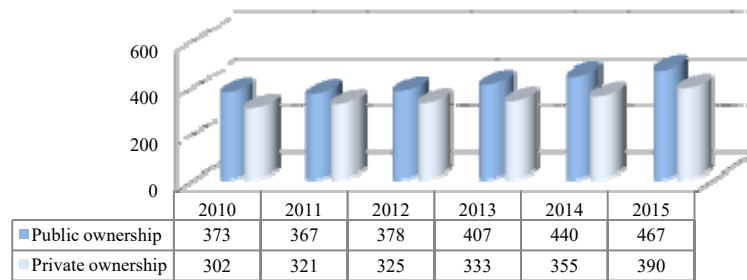
The statistical survey of the real salary income was focused on two main ownership forms, harmonized with the nomenclature of the national ownership forms:

- Public property - including entirely state-owned businesses, autonomous administrations, majority state-owned businesses and public entities of national and local interest;
- Private property - including private entities with majoritarily or entirely privately owned domestic or foreign capital, cooperative property (consumer cooperatives, handicraft, credit cooperatives and unprocessed agricultural associations) and common ownership entities (companies belonging to communities and to political organizations and institutions) (Agenția Națională de Administrare Fiscală, 2017).

The statistical research is based on a survey conducted by the National Institute of Statistics (NIS) over about 27,300 active entities with legal status, whose main activity is included in the divisions of the classification of economic activities in Romania (CAEN Rev. 2), harmonized with the European classification in the field (NACE Rev. 2). The investigation has exhaustively researched the economic entities with 50 or more employees, while the entities from the size class 1- 49 employees were investigated selectively, based sampling methods.



Starting from 2010 until 2015, the average net nominal monthly salary income is graphically represented as follows, taking into account the property forms:



**Figure no. 2: The evolution of the average net nominal monthly salary income (expressed in Euros)**

*Source: The graphically analyzed indicators were established by personal calculation, based on the information published on the website of the National Institute of Statistics, Romania*

The analysis of the data summarized in the chart reveals that, in 2010-2015, the average net nominal monthly salary income from the public sector was higher than the one achieved in the private sector, as follows: in 2010, the indicator measured in public entities, respectively 373 Euros, was by 23.51% higher than its correspondent from the private sector (i.e. 302 Euros). In 2015, the value of the average salary income from the public sector, i.e. 467 Euros, surpassed the similar indicator calculated in the private sector (i.e. 390 Euros), with a percentage of 19.74%.

The growth rate of the average net nominal monthly salary income in public units, in the reference period, experienced a more pronounced trajectory in 2014 compared to 2013, when the increase was represented by 8.11%. Afterwards, the salary increase trend continued at a slower pace, so that, in 2015, the salary indicator was by 6.14% higher than in 2014.

Similarly, in the private sector, the average net nominal monthly salary income experienced an upward trajectory, the growth rate being lower in 2014 compared to 2013 (the increase rate was 6.61%), while, in 2015, the wage increases measured a percentage of 9.86%.

In conclusion, during the analyzed time horizon, represented by the period 2010-2015, the average net nominal monthly salary income from public property entities was higher than its correspondent from private entities, with a percentage of over 19%. The situation can be classified as atypical, given that the national GDP is formed at a rate of over 70% by the private sector (Anghelache et.al., 2014).

The salary growth rate in the reference period was slower in public entities (the absolute percentage increase was about 25% in 2015, compared to 2010) compared to privately owned entities (the absolute percentage increase totaled about 29% in 2015 compared to 2010). At the same time, the net average salary income in the private sector recorded a slight decrease in 2011, then followed an increasing trend until the end of 2015. In the private sector, the net average salary income showed a sustained growth trend.

The studies focused on the establishment of causal relationships regarding the increase in salary income show that the rise in the average salary income was due mostly to the increase in the gross minimum salary per economy (INCSMPS, 2016) and in the income

from social assistance, but it was also triggered by the low inflation level. According to the statistical surveys conducted by the National Bank of Romania, the increase in the minimum salary directly affected at least 22% of staff from the private sector (RNB, 2015). The general consumer price index is a barometer for measuring consumer prices, known in the literature as the Laspeyres index, which is calculated according to the following mathematical formula:

$$L_{1/0} = \frac{\sum q_0 P_1}{\sum q_0 P_0} \tag{2}$$

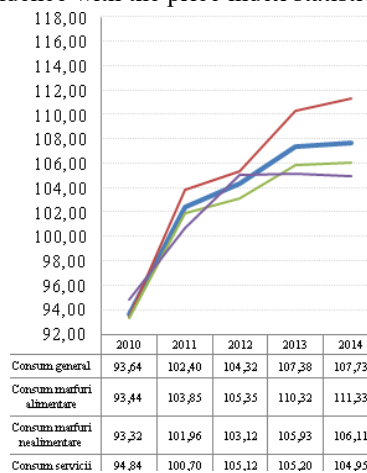
Where:

- L - Laspeyres index in the current period compared to the reference period
- p<sub>0</sub> - the price of a product / service in the base period (reference)
- p<sub>1</sub> - the product price in the current period
- q<sub>0</sub> - the quantity of sold products/ services in the base period

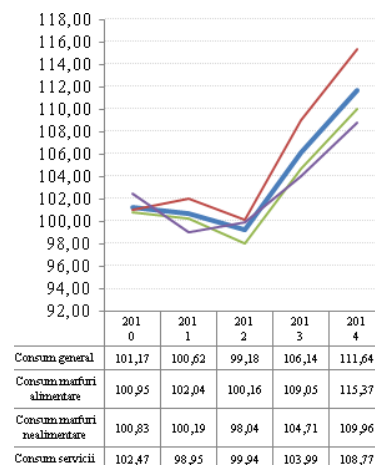
In order to achieve the objective of this work, namely to analyze the evolution of the real salary income index in the surveyed sectors (i.e. public and private), we calculated by ourselves the indices of the average net nominal monthly salary income and the consumer price indices, using the statistical data provided by the National Institute of Statistics.

We calculated the indices for each year, based on the consecutiveness criteria of the previous years, taken as reference.

The real salary income index for public and private property entities was calculated by the authors of this study by dividing the net nominal monthly salary index to the general consumer price index for the period under review. Moreover, the analysis was focused on the consumer trends of on food items, non-food items and service consumption, in correspondence with the price index statistically determined for each variable.



**Figure no. 3: The evolution of the real salary income index in the public ownership system, influenced by consumer factors**



**Figure no. 4: The evolution of the real salary income index in the private ownership system, influenced by consumer factors**

Source: The graphically represented indicators were calculated by the authors' own processing of the data supplied by the National Institute of Statistics, for 2010-2015

Adapting and processing the statistical data on the real salary income index with consideration of a successive annual temporal reference are based on the premise that it is necessary to analyze the uncertainty and sensitivity that might influence the statistics (Vaida-Muntean et.al., 2014).

According to the results obtained in this work with regard to the average net nominal monthly salary income, it is noteworthy that it recorded a higher level of achievement in public property entities, compared to those of private property. As a result, a higher salary income in the public sector indicates a higher living standard of the active persons from this sector, compared to those from the private environment.

In terms of the consumption trends of the real salary income, the obtained indicators reveal that the staff employed both in the public sector and in the private one show the tendency to allot the majority of their funds to the food necessary to subsistence. A smaller share (compared to food) in the consumption basket is represented by the allotment for non-food items or services.

### **Conclusions**

The results of this analysis complete the statistics and the studies conducted on the large number of Romanian employees remunerated with minimum salaries. In the recent years, in Romania, there has been persisting a phenomenon detached from the ideology of economic normality, namely that the staff employed in the public sector is paid more than their peers from the private sector. This antagonistic situation stems from the fact that the private sector has the most significant contribution to the Romanian gross domestic product and, therefore, a better remuneration in this sector could or should constitute the prerequisites for an increase in labor productivity, decreased unemployment levels, better professional training, envisioning a contribution to sustainable economic growth.

The calculation of the real salary income index, according to public/ private property forms of the entities where it operates, show that, in certain periods, the indicator calculated for the public sector was lower than the one from the private sector, although the average net nominal salary income from the public sector was higher than the one from the private sector. This situation demonstrates that the evolution of the real salary income index is influenced by factors other than the indicators based on which the calculations were made, such as the pace of the increase/ decrease in the average net salary income in each sector separately. Thus, the criteria and the factors that influence the salary income growth in the two major areas of activity in Romania could be developed in order to find those equitable solutions in the decision making process related to establishment of remuneration on the labor market.

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## THE STATE OF DIFFERENT TYPES OF RENEWABLE ENERGY SOURCES IN POLAND

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### **Abstract**

Poland's economy relies on energy derived from fossil fuels, which are subject to depletion and whose extraction and use have been linked to adverse environmental impacts. It is therefore vital to take notice of renewable energy sources (RES), which include wind, solar, hydro, wave & tidal, geothermal, biomass, biogas, and liquid biofuel energy. Poland's geography allows the use of wind, solar, hydro and biomass energy. Natural gas is viewed as a "bridge" in a transition towards RES-based energy generation, and especially such non-conventional sources as shale gas, whose prospecting is currently under way in Poland. This article discusses the state of various types of renewable energy sources in Poland.

**Keywords:** renewable energy, biogas, wind energy, photovoltaics, shale gas

**JEL Classification:** O1, O13, O33, Q42, Q47

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### **Introduction**

Poland's energy policy is largely influenced by the requirements imposed by the European Union. Much of EU legislation has been transposed into the Polish national law in conformity with Poland's obligations as a member state. The country is struggling to cope with a number of other challenges that are specific for the energy industry. Expected to comply with EU regulations and adjust to changing economic conditions, the energy sector requires modifications which include energy demand and the development of the overall fuel and energy generation and transportation infrastructure. One should also emphasize the need to diversify energy sources to ensure that Poland becomes more independent of out-of-country supplies of natural gas and oil.

Rather than an option for boosting the world's economy, green energy has become a necessity. Changes in the energy generation system irreversibly affect the types of fuels that are being acquired. As a member state of the European community, Poland is obliged to adopt such changes. As coal deposits in the ground run out, its extraction becomes increasingly less profitable. According to the 2016 data from the International Energy

Agency (IEA), many Polish power plants have grown obsolete and are harming the environment. More than 62% of the country's coal-fired power plants have been operated for more than three decades [IEA 2017]. In 2013, Poland imported PLN 76 billion worth of fuel, of which fuel from Russia accounted for ca. 60 billion. In 2014, fuel imports fell to PLN 54 billion, due mainly to global declines in crude oil, gas and coal prices [CSO, 2016a]. It is therefore essential to diversify energy sources by promoting the growth of the local domestic market to ensure the largest possible independence of conventional fuel imports in an uncertain global economic and political circumstances.

In 2004, having ratified the Kyoto Protocol and as a member of the European Community, Poland committed to increasing the share of renewables in its energy mix. By 2020, Poland's share of renewables and green energy consumption is expected to rise to at least 15% of its gross final energy consumption\*. In addition to the gross final consumption of energy from renewables in overall power generation (25%), other targets apply such as the share of the gross final consumption of energy from renewable sources in the overall energy consumption in transportation (21%) as well as the heating and cooling sectors (54%) [Ministry of Environment, 2010]. Should Poland fall short of the targets laid down in Directive 2009/28/EC, it will be forced to either transfer statistical green energy from other EU member states which have produced excess renewable energy or face sanctions and monetary penalties for violating its EU obligations.

The gross consumption of renewable energy between Poland's accession to the European Union and 2015 rose by the annual average of 5% [CSO, 2016b]. Notably, the fastest growth in such consumption was observed between 2007 and 2008. The trend leveled off between 2008 and 2013 and subsequently declined in 2014. These tendencies reflect trends in politics and a change of the government's views on renewable energy sources. The big question is whether Poland will succeed in attaining the 15% RES share target by 2020, as required under Directive 2009/28/EC. If the current pace of growth is maintained, achieving the target may become problematic. While data trends since 2005 suggest the objective is achievable, an extrapolation of the trend seen in the last three years (2013 – 2015) shows that Poland will fall short at a 12.5% share. One major problem is the transportation fuel sector which has lately shown declines due to the need to withdraw first generation fuels from market while experiencing problems in its transition to second generation fuels [Schnell, 2016]. In 2015, the share of renewable energy sources in transportation amounted to 6.33% [CSO, 2016a], i.e. a half of the desired 14% share of RES in transportation by 2020. RES energy comes from sustainable natural processes that produce renewable non-fossil sources of energy. Such sources include wind, solar, hydro, marine wave, tidal & sea current, geothermal, biomass, biogas and liquid biofuel energy. Poland's geography makes the country suitable for harnessing wind, solar, hydro and biomass energy sources.

The aim of this article is to outline the current state of a range of renewable energy sources as well as shale gas in Poland.

### **Biogas production**

The current regulations on biogas plants were adopted by amendments to the Renewable Energy Sources Act which took effect on July 1, 2016. The law created excellent

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\* The ratio of the gross final consumption of energy from renewable sources to the gross consumption of energy from all sources, expressed as a percentage (%).

opportunities for the development of biogas plants. First and foremost, biogas plants have been classified as “stable RES” and therefore ones eligible for support, which has been provided for the related installations [Act, 2015]. The new laws not only encourage new investors to build biogas plants but also support existing facilities. Support will be extended especially to agricultural biogas plants which were brought to the brink of bankruptcy by the protracted delay in the adoption of the new Act and due to continuous declines in the value of green certificates.

As for new RES projects, an auction system has been envisioned with separate auction categories for each source, including agricultural biogas plants.

Poland’s biogas production relies on three types of installations: agricultural biogas plants, biogas generation installations in waste-water-treatment plants and biogas installations in landfills. The type that is missing is biogas plants that produce biogas for municipal use, as for instance in Sweden where biodegradable municipal waste delivered to municipal biogas plants is used to produce biogas which then fuels city buses and/or public buildings [Hung and Solli, 2012].

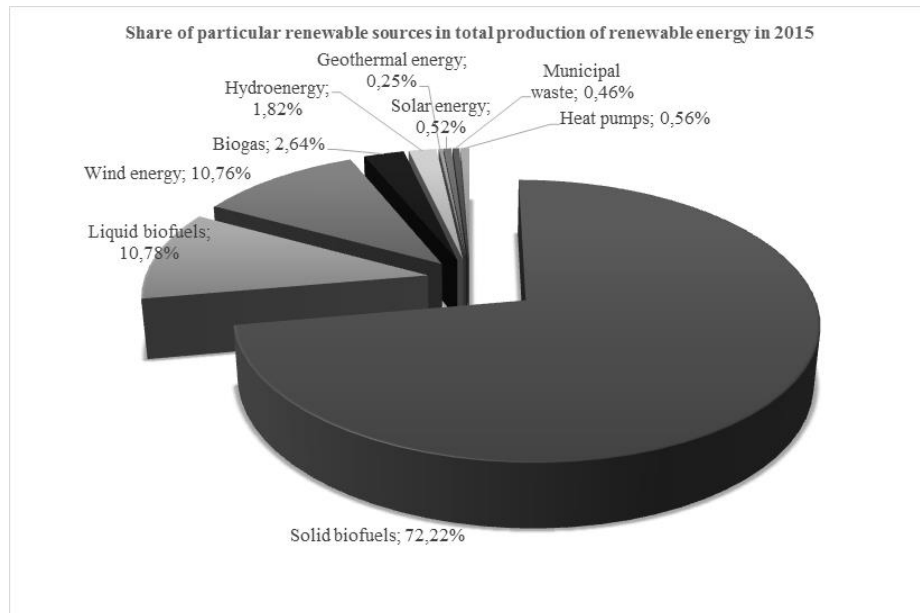
The current condition, potential and perspectives of biogas facilities in Poland have been described by Igliński, Buczkowski and Cichosz [2015]. The technical potential for biogas generation in Poland using various substrates is to produce 82 million cubic meters of biogas from municipal waste, 20 million cubic meters from sewage sludge, 1603 million cubic meters from animal droppings, 551 million cubic meters from maize and 254 million cubic meters of biogas from grass. This brings the total energy obtainable from biogas to 39.44 PJ. Once tapped, the biogas potential would help meet 7.5% of energy demand. The external cost of Poland’s biogas energy sector is considerably lower than those of coal. In addition, biogas enjoys more support from local communities and methane fermentation resources are widely available all across the country.

The potential for producing biogas from agricultural waste in rural plants in Poland has been described by Muradin and Foltynowicz [2015]. According to the Energy Regulatory Authority (data as of December 31, 2016), Poland was home to 301 biogas facilities with the combined installed capacity of 233.967 MW. 107 of these operated within waste-water-treatment plants (66.11 MW), 97 in landfills (62.92 MW), and 95 as agricultural biogas plants (103.234 MW) [Energy Regulatory Authority, 2017].

An overview of the three most recent reporting years (2013 – 2015) shows a slight increase in biogas production in waste-water-treatment plants and landfills and a substantial rise in agricultural biogas production [CSO, 2015]. Changes are also observed in the proportions of the individual biogas types used to produce energy. The share of agricultural biogas has been noted to rise from 31% in 2013 to 45% two years later.

Although relatively slow, increases in biogas-based energy production are nevertheless steady. The overall production includes biogas from waste-water-treatment plants, landfills and farms. In 2015, the total electricity produced with the use of biogas amounted to 906 GWh. A breakdown of energy production by renewable energy source in Poland in 2015 is provided in Graph no. 1. The biggest growth was seen in agricultural biogas. This is due to a limited number of biogas production and use installations that can be established in waste-water-treatment plants and landfills. Their potential overall output depends on their number and capacities. On the contrary, the available agricultural biogas potential is harnessed only partially with considerable room for growth still remaining.

**Graph no. 1: Share of particular sources in total production of renewable energy in 2015**



Source: CSO (Chief Statistical Office), 2016, *Renewable Energy in 2015*. Department of Statistical Publishing, Warsaw.

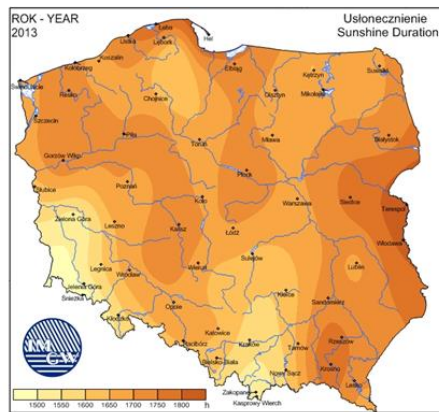
### Wind energy

In deciding to invest in wind farms, it is critical to define the kind of wind energy generation: will it be a small autonomous power plant with a capacity of up to dozens of kW (connected to isolated grids within households or manufacturing companies) a wind farm with a capacity of hundreds of kW to several MW (connected to the national grid). The project aim will determine the size of equipment whereas its technical specifications will affect further project factors which may be legal, environmental, economic and social. The key variable determining the development of wind power in a given geographic area is wind speed patterns. The problem faced by prospective investors in selecting their sites is the lack of publically available information on wind characteristics in many parts of the country. The Institute for Meteorology and Water Management has assessed windiness in Poland. Measurements were taken in approximately 60 weather stations. Their results were used to make wind observation maps for Poland (Fig. 1.). Such maps show that roughly 60% of Poland's area offers favorable wind conditions that are sufficient for the use of wind as a renewable energy source. Particularly advantageous are areas in which the annual average wind velocity amounts to 5 m/s or more. These include the Baltic Sea coast and, in



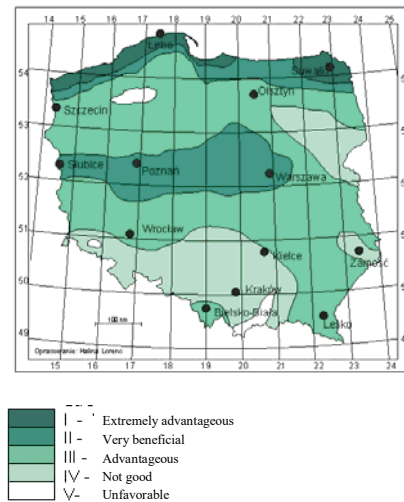
particular, its northernmost part in Koszalin and Hel, as well as the Suwałki Region, central Wielkopolska, Mazovia and Bieszczady. Poland’s existing wind farms are located mainly in the Pomeranian, West Pomeranian, Warmian-Mazurian and Wielkopolska Regions. According to the ERA [Energy Regulatory Authority, 2016], 1078,034 MW of wind energy was installed in Poland in 2016, whereas the total installed capacity as of June 30, 2016 was 5 660.070 MW.

In 2014, the rise of wind power plants in Poland slowed down considerably affected by a collapse of the “green certificate” market, which contributed a portion of revenues from the sale of certificates of origin. In the first half of 2016, a major increase was seen in installed wind power. This rise was driven by the enactment of the Wind Power Act of July 2016 [Act, 2016] which imposed restrictions on wind power facility locations in Poland, prompting investors to rush to complete ongoing projects.



**Figure no. 1: Sunshine duration zones in Poland**

Source: Lorenc, 2005



**Figure no. 2: Wind power zones in Poland**

Source: Lorenc, 1996

### Photovoltaic energy

Compared to wind power, solar energy remains largely unutilized in Poland. Solar radiation varies widely throughout the year with 80% of total solar radiation being available between April and September. The average annual sunshine is 1600h/year. The most sunshine is available in the Wielkopolska and Lubuskie Regions (Fig.2.) whereas the operating conditions for equipment solar radiation in Poland range from 250 to 950 kWh/km<sup>2</sup>.

By 2020, the Ministry of Energy plans to increase the number of installed solar energy capacity in Poland several times not only to comply with Directive 2009/28/EC but also to strengthen the country’s energy security. The current capacity of solar power plants is 92.820 MW (as of June 30, 2016), compared to a mere 0.033 MW in 2010 [Energy Regulatory Authority, 2016]. After the adoption of power supply level 20 in the summer of

2015, Polskie Sieci Energetyczne (Polish Power Grids) published a “*report on threats to energy security and energy supplies*” which emphasized the significance of photovoltaic installations for such security. Furthermore, according to the Polish Photovoltaics Association, the number of prosumers in Poland is growing continually. Home photovoltaic facilities have more than 62 MW of installed capacity. Most of that capacity was added in the first half of 2016 [Polish Photovoltaics Association, 2016] before the President of Poland signed the amended Renewable Energy Sources Act. The current law adopts the term prosumer and defines rules for paying micro installations with a capacity of up to 40 kW [Act, 2016].

### **Shale gas**

Well extraction of non-conventional hydrocarbon deposits is a sector of the extraction industry that exerts a substantial impact on the environment. It is therefore only logical to search for alternative solutions and technologies that will be less environmentally harmful. Natural gas is the only fossil fuel viewed as a viable “bridge” in the transition towards a future RES-based energy industry. This is because of the emissions released in burning gas to generate energy are considerably below those for other fossil fuels [Bocianowski, 2016]. Another argument are synergies with RES-based energy generation systems allowing to use gas-fuelled power generators to rapidly stabilize grids (compared to other electricity generation systems such as coal-fired) during times in which wind or photovoltaic energy proves insufficient to meet current demand. The 21<sup>st</sup> century was proclaimed to be “the Golden Age of gas”. Poland’s natural gas deposits are relatively meager forcing it to import substantial volumes of this fossil fuel. The discovery and extraction of shale gas in the United States made the country independent of imports. Next to another non-conventional fuel, i.e. methane from coal deposits, shale gas forms a part of the governmental project of Strategy for Responsible Growth. Poland is only starting to prospect for shale gas deposits. According to the Polish Geological Survey, a much valued and searched for type of Polish shale is Ordovician and Silurian, which occur in the north, east and south-east of the country [Kiersnowski and Dyrka, 2013]. In the timeline of events associated with releases of information on Poland’s local shale gas deposits, the first approximate calculation was provided by the Energy Information Agency (EIA) at the US Department of Energy, which put the total at 5.3 billion cubic meters [EIA, 2011]. Correlated with estimates of national consumption, as quoted at the time by the Ministry of Energy (15.0 billion cubic meters in 2014), such an amount of natural gas would satisfy domestic demand for approximately 300 years [Ministry of Energy, 2015] . However, Polish experts have pointed out certain flaws in the precepts adopted for the EIA Report. Scientists from the State Geological Survey estimated the possible shale gas resources at 346-768 billion cubic meters [Kiersnowski and Dyrka, 2013]. Such an amount would render Poland independent of gas imports for approximately 20-50 years. Unfortunately, prospecting work and production tests designed to estimate Poland’s actual shale gas deposits, especially those that hold the biggest promise of being utilizable in real life, have since ground to a halt.

### **Conclusions**

1. If the current long-term global rising trends in medium-term energy demand remain unchanged, global deposits of non-conventional fossil fuels are bound to be depleted.
2. The extraction and use of fossil fuels has an adverse environmental impact.
3. RES are the future for the people, the economy and the environment.

4. Poland's geography makes the country well suited for harnessing wind, solar, hydro and biomass energy.
5. Despite many challenges, power co-generation from biogas is becoming increasingly more significant in Poland. Recent years saw the biggest increases in the number of agricultural biogas power plans.
6. The Wind Energy Act of 2016 imposed restrictions on the location of facilities that rely on such technologies in Poland, hampering the development of the RES subsector.
7. Further growth of photovoltaics requires an increased environmental awareness among Poland's population, the development of energy storage technology and increases in the efficiency of photovoltaic installations.
8. If the current long-term global rising trends in medium-term energy demand remain unchanged, global deposits of non-conventional fossil fuels are bound to be depleted.
9. The extraction and use of fossil fuels has an adverse environmental impact.
10. RES are the future for the people, the economy and the environment.
11. Poland's geography makes the country well suited for harnessing wind, solar, hydro and biomass energy.
12. Despite many challenges, power co-generation from biogas is becoming increasingly more significant in Poland. Recent years saw the biggest increases in the number of agricultural biogas power plans.
13. The Wind Energy Act of 2016 imposed restrictions on the location of facilities that rely on such technologies in Poland, hampering the development of the RES subsector.
14. Further growth of photovoltaics requires an increased environmental awareness among Poland's population, the development of energy storage technology and increases in the efficiency of photovoltaic installations.
15. Own non-conventional gas resources are mainly significant for energy independence. Domestically-generated energy designed to stimulate the growth of industry is expected to trigger the growth of the entire country.
16. Given the extraction technologies suited to Poland's geology and solutions that reduce environmental impacts, shale gas appears to be a significant energy resource that can be viably utilized in the future.

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## **THE IMPACT OF LEGISLATION ON THE ROMANIAN TOURISM SECTOR**

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### **Abstract**

This paper deals with the issue of legal regulation of Romanian tourism. It is known that tourism and the specific activities of this sector are important economic activities, but not always treated with the necessary importance in the development of social and economic life, in terms of legislation. Romania continues to have heavy legislation from the post-communist transition to a competitive economy market, with only small efforts with little impact on the tourism development. The results of this case study indicate that the existing legal regime is over-crowded with normative acts and in urgent need of a new vision of the Romanian tourism and a legal frame, correlated with the European legislation.

**Keywords:** tourism legislation, tourism development, government, SWOT analysis

**JEL Classification:** K22, M38, Z32

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### **Introduction - The present context of Romanian tourism**

Unlike other Eastern European countries, Romania has the most rich and diverse natural tourism resources which gives us a greater availability for tourism. This valuable tourism potential is reflected in the spectacular landforms and scenic landscapes, harmoniously combined, and a lot of traditions that are still preserved unaltered. However, natural and anthropic tourism potential of great value and variety, concentrated in a relatively small area, has failed so far to make the tourism industry a major source of economic growth and overall development. In terms of the international tourist interest, Romania is recognized as rich in natural resources, but bad services and infrastructure, which puts us in second place compared to our Hungarian neighbors, although they don't have our resources, they exceed in the number of foreign tourists annually.

In order to present the actual context of the Romanian tourism we need a SWOT analysis of the current situation of the country, taken as an international tourist destination unit, holding both weaknesses and strengths and acting in a moving market, having opportunities, but also facing the threats inherent in an imperfect market. (Nistoreanu, 2005).

**Table no. 1: SWOT analysis of the Romanian tourism**

<p><b>STRONG POINTS</b>  <b>Natural resources</b> (28% mountains, 42% hills and plateaus, 32% plains), Carpathians (virgin forests, wildlife, hiking trails), Black Sea, the Danube Delta (nature reserve)                  Climate, fauna and vegetation  <b>Heritages:</b> historical monuments and archaeological remains, (monasteries, fortresses Dacian fortified churches) folk traditions, art institutions, folklore, architecture, and cultural and artistic events  <b>Romanians hospitality</b>  <b>Transport accessibility</b> (airports with international access, seaport, rail and road network)  <b>Increasing investment</b> in rural areas  <b>Diversification of accommodation</b> capacity and implementation of best practices in ecotourism models  <b>Spa resources:</b> waters - mines and therapeutical lakes, therapeutic natural gas emanations, therapeutic muds  <b>Legal framework:</b> the existence of the legal framework for the management of protected areas and environmental protection, harmonized with the European one, the existence of the National Tourism Development Master Plan 2007-2026  <b>The safety</b> Romania offers totourists in the current geopolitical context  <b>Qualified staff</b> with language skills and qualifications above average  <b>Mobile and fixed network</b> operators with national and international coverage  <b>Travel agents and tour operators</b> in providing travel services expertiență  <b>Participation</b> in national and international tours, fairs and tourism exhibitions  <b>Promotional packages</b> according to the needs and requirements of tourists  <b>Traditional cuisine</b> and regional specialties  <b>Apply the rules</b> on reduced VAT in the tourism sector.</p>	<p><b>WEAK POINTS</b>  <b>Limited capacity</b> and low quality standards of tourism and leisure infrastructure.                  Poor development of tourism services.  <b>Limited access</b> for people with disabilities to numerous tourist attractions.  <b>Lack of infrastructure</b> at the European close  <b>Forced urbanization</b> of the rural population, with direct implications in the loss of intangible cultural heritage / existing material.  <b>Difficulties</b> in tourist capitalization of traditional crafts.  <b>Gap</b> between the skills offered by the school and labor market requirements in tourism.  <b>Black market labour.</b>  <b>Insufficient recovery</b> through the creation of specific architectural historical monuments.  <b>Failure in considering traditional</b> architecture in the construction of new buildings, located inside parks or in their surrounding area.  <b>Low level</b> of implementation of quality management system in the tourism sector.  <b>The high beach erosion.</b>  <b>Low salaries</b> of staff in tourism.  <b>Lack of training</b> courses and training in tourism.  <b>Poor involvement</b> of the authorities to specific areas of tourism.  <b>Non-involvement</b> of the media in promoting tourism internally and externally.  <b>Lack of an adequate legislative package</b> to support the development of tourism investments and facilities given in this regard.  <b>The lack of an integrated</b> Business Travel offer.  <b>Seasonal fluctuations</b> due the lack of promotion that Romania is a tourist destination 365 days.</p>
<p><b>OPPORTUNITIES</b>                  • <b>Exchange of know-how</b> and experience with partners from abroad                  • <b>Appearance possibility of accessing EU funds</b> for the period 2014- 2020 for development of tourism infrastructure                  • <b>The evolution</b> of online communication channels                  • <b>The growing interest</b> for business - MICE</p>	<p><b>THREATS</b>                  • <b>The strong international competition</b>, including unfair competition practices                  • <b>Lack of institutional communication</b>                  • <b>Continuing migration</b> of skilled workers in tourism                  • <b>Maintain an inconsistent</b> nature of this industry                  • <b>Gradual dilution</b> of Romanian traditions and</p>

<p>(Meetings, Incentives, Congresses &amp; Events)</p> <ul style="list-style-type: none"> <li>• <b>The geopolitical position</b> on the continent</li> <li>• <b>Recovery of financing for development</b> of human resources in the field, at high school, university and adult continuing training level</li> <li>• <b>Upward trends</b> in terms of evolution of quality tourism offer</li> <li>• <b>Increasing</b> the number of airlines operating in Romania, resulting connect the cities of our country with more and more destinations in Europe</li> <li>• <b>Unlocking the potential</b> of cross-border tourism (Bulgaria, Serbia), especially in the context of Danube Strategy</li> <li>• <b>Growing appeal</b> of rural tourism</li> <li>• <b>The desire of all actors</b> in the field in developing a tourism law harmonized with international law</li> <li>• <b>Increased demand</b> for resorts and spas</li> <li>• <b>The positive development</b> for tourism operators</li> <li>• <b>Request for growing</b> tourism niche forms of tourism that are on the Romanian territory.</li> </ul>	<p>customs</p> <ul style="list-style-type: none"> <li>• <b>Low awareness</b> of the benefits of the country's tourism potential</li> <li>• <b>Exclusion of the business</b> from the national development priorities</li> <li>• <b>The degradation of rural architectural heritage</b> due to the depopulation of rural communities</li> <li>• <b>Massive migration of young people</b> caused by the lack of jobs</li> <li>• <b>Insufficiently well developed</b> organizational culture of senior executives and managers in the hospitality industry</li> <li>• <b>Failure to adapt to the evolution</b> of the concept of Sharing Economy</li> <li>• <b>The destruction and degradation</b> of the natural environment through continues pollution</li> <li>• <b>Increasing international</b> oil prices</li> <li>• <b>Insufficient budget allocated</b> to the Ministry of Tourism to promote tourism</li> <li>• <b>The occurrence of natural</b> disasters (earthquakes, floods, landslides, droughts)</li> <li>• <b>Lack of tourism law.</b></li> </ul>
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*Source: own processing in accordance with the National Tourism Master Plan of Romania 2007 - 2026*

SWOT analysis gives us a clear picture of the Romanian tourism and where we can extract by combining the four elements, four strategies that will lead to the development of this segment of industry, the tourism. This way, pursuing opportunities that best fit the strength points, overcome weaknesses in pursuing opportunities, identifying how to use the strengths to reduce vulnerability to external threats and not least to establish a defensive plan to prevent a situation where weaknesses become very vulnerable to external threats.

This study aims to analyze the Romanian legislative framework, which as evidenced by the SWOT analysis, identifies itself with a strong point - the existence of the legal framework for the management of protected areas and environmental protection, harmonized with the European one and the existence of the Master Plan for National Tourism Development 2007 -2026. As weakness: the absence of a corresponding legislative package to support the development of tourism investments and facilities given in this regard. We note that regarding opportunities, there is a willingness of all actors in the field in developing a tourism law into line with international law, and its absence is a threat to the Romanian tourism.

#### **Analysis of the legislative framework**

The legislative framework governing the Romanian tourism activity contains a series of laws, government resolutions and ordinances. These legislative documents are basis for functioning as an organization and development of business tourism in Romania. Ordinance no. 58 from 21 of August 1998, upgraded until 2014 regarding the organization of deployment and tourism in Romania, stipulated through Law no. 755 from 27<sup>th</sup> of December 2001, as amended and supplemented, provides tourism around national



priorities, defines terms such as tourism, tourist resources, heritage tourism, tourism accommodation, touristic zone, sightseeing, tourist product, tourist offer, package, etc. ... with other words the general organization of the Romanian tourism and frame version is part of this legislative act. (Pop, 2010)

In addition to the above facts, the Romanian legislation provides specific normative acts for example regarding the touristic patrimony, there are different laws, ordinances governing this tourism component, as follows:

- Decision No. 852 from 13<sup>th</sup> of August 2008 approving the rules and criteria for the tourist resorts certification;
- Order no. 1096 from 3<sup>rd</sup> of September 2008 approving the Methodological Norms on accreditation cause of national centers of tourist information and promotion;
- Emergency Ordinance no.62 from 26<sup>th</sup> of August 2004 regarding the organization and functioning of the tourist parks, as amended and supplemented;
- Law no. 526 from 11<sup>th</sup> of December 2003 approving the National Program for Mountain Tourism Development "Super Ski in the Carpathians", with additions and modifications;
- Ordinance no. 109 from 31 of August 2000 regarding the Balnear resorts, balneary and climatic spa and medical assistance and recovery, as amended and supplemented, Law no. 343 of 31<sup>th</sup> of May 2002;
- Decision no. 335 from 4<sup>th</sup> of April 2002 regarding the measures for implementation of the "Blue Flag" program in Romania. (Ministry of Tourism, 2016)

In order to develop the Romania's tourism infrastructure and investment programs, we identified the normative act GD. 120 / 17.02.2010 referring to the list of programs and investment projects in tourism and sources of funding of technical documentation and execution works programs in tourism and investment objectives and eligibility criteria for the approval of programs and investment projects in tourism, as amended and supplemented. The Decision no. 31 from 24<sup>th</sup> of January 1996 relates also to this area, approving the methodology for approval of planning documents concerning areas and tourist resorts and technical documentation on construction of tourism.

The Romanian legislation provides also a series of regulations regarding the trading of travel packages, as follows:

- Order no. 1387 of 11<sup>th</sup> from November 2015 regarding the approval of the contract for the travel packages trading;
- Emergency Ordinance no. 8 from 18<sup>th</sup> of February 2009 regarding the granting of the holiday vouchers regulated by Law no. 94 from 1<sup>st</sup> of July 2014 and Decision no. 215/2009 for approving the methodological rules. (Ministry of Tourism, 2016)

During the analysis of the normative procedures in the conduct of business travel activities we recognized a number of laws, such as classification certificates, licenses and patents for tourism, provided as Decision no. 1267 from 8 December 2010 on the issue of classification certificates, licenses and patents for tourism, as amended and supplemented, also by Order no. 65 from 10 June 2013 approving the rules on the issue of classification of tourist using accommodation and catering, licenses and patents for tourism, as amended and supplemented.

The Romanian legislation is presented as a distinct tourism regarding the activities taking place on the Black Sea, as follows:

- Emergency Ordinance no. 19 from 22 February 2006 regarding the use and the control of the Black Sea beach and the activities on the beach, regulated by Law no. 274 of 4 July 2006, with subsequent amendments;
- Order no. 1204 from 26 March 2010 approving the Methodological Norms on the authorization beaches for tourism;
- Government Emergency Ordinance no. 202 of 18 December 2002 on the integrated management of the coastal zone;
- Decision no. 1136 from 18 September 2007 approving the Methodological Norms regarding the organization of public water rescuing - lifeguard and first aid stations on the beach;
- Order no. 511 from 3 June 2009 for approval of the rental contract framework, the list of sectors beach, proposed for rental and tariff reference for renting beach for summer 2009. (Ministry of Tourism , 2016)

In order that Romania becomes an attractive destination for foreign tourists, it is needed a country brand and image promotion, these legislative activities are also regulated by the laws, GD. 20/2012 approving the Multiannual Program for tourism marketing and promotion and development of destinations Multiannual Program, forms and tourist products, but also by Order no. 1502 / 13.12.2016 approving the list of international exhibitions of tourism where the National Tourism Authority participates in the year 2017. Not only the GO no. 58/1998 with its amendments represents the legal framework for organizing the tour, we noticed also other specific normative acts for leisure activities, as follows:

- Decision no. 435 from 28 April 2010 regarding the rules governing the marketing and operation of equipment for recreation;
- Decision no. 452 from 18 April 2003 regarding the conduct of recreational boating and Order no. 292 from 12 September 2003 approving the Methodological Norms;
- Law no. 402 from 31 October 2006 regarding the prevention of accidents and the organization of the underground caving rescue activities - Republished. (Ministry of Tourism, 2016)

We note the very rich Romanian legislative acts for various activities and not only, there are laws that legislate the tour guides activity by Decision no. 305 from 8 March 2001 regarding the certification and use of tourist guides, as amended and supplemented, and by Order no. 637 from 1<sup>st</sup> of April 2004 to approve the Norms concerning the conditions and criteria for selection, enrollment, certification and use of tourist guides.

We observe a very important point in the evolution of Romanian tourism industry by creating a legal framework with regard to protection of tourists:

- Decision no. 559 from 14 June 2001 regarding the commercialization of food and non-tourist resorts;
- Decision no. 306 from 8 March 2001 regarding the non-discriminatory taxes and tariffs for Romanian and foreign tourists, practiced by the tourism operators and cultural institutions;
- Decision no. 805 from 23 August 2001 regarding the measurements of informing the maximum tariffs for housing services in tourist reception with functions of tourist accommodation in unorganized tourism. (Ministry of Tourism, 2016)

In addition to those listed and classified in different categories, the following acts refer to providing features such as Ordinance no. 63 from 28 August 1997 referring to the establishment of facilities for rural tourism development by Law no. 187 of 14 October

1998, order no. 1 of 11 January 2001 referring to the possibility of granting facilities for journalists and radio and television reporters and Order no. 320 of 10 July 2001 referring to the establishment of awards of excellence in tourism granted to Romanian personalities.

### **The impact of legislation on tourism**

In the process of the development of all this legislation it was considered to meet all international standards of tourism activities and to ensure efficient services to meet requirements of national and international tourists at the time of their establishment. We draw attention to the fact that currently Romania has plenty of legislation relating directly to tourism.

Accordingly, it is proposed that this should be consolidated to remove any anomalies, simplify understanding and improve ease of implementation. At the same time, it recommends the adoption of a new tourism law, but translating these numerous acts in a new bill would not do any good to the development and innovation of Romanian tourism, so the new Advisory Council of Tourism, consisting of the main actors tourism and the powers they have, it is necessary to come up with a concrete proposal for law enforcement at national level with the Romanian tourism. (Ministry of Tourism, 2016)

Practically all countries in the world have a government department or unit responsible for tourism policy. However, among them, relatively few currently have a separate, independent ministry, or travel department and the number of those who have one is slightly declining. The following are some examples of countries with a ministry dedicated to the tourism sector: Argentina, Brazil, Bulgaria, Croatia, Egypt, India, Indonesia, Israel, Maldives, Mexico, South Africa and the Philippines. (World Travel & Tourism Council – Governing National Tourism Policy, 2015)

Since 2016, Romania joined these countries with a proper ministry of tourism, independently set and with a specific budget. However the negative impact on Romanian legislature is visible, due to the instability created by the discontinuity of government policy, from time to time there is a department within the Ministry of Economy, or a National Tourism Authority, under the same ministry. This instability is caused by the lack of a clear vision of the Romanian political class on a sector that can develop the country's economy, tourism.

From a simple analysis of the content of Decision no. 1136 of 18 September 2007 for approving the Methodological Norms regarding the organization of public water rescuing - lifeguard and posts first aid on the beach, we find that the Romanian seaside has provided lifeguards who don't have facilities over offering help, according to this legislation, the funding from local authorities being inexistent. "Art. 12. - (1) Financing public services for Aquatic Rescue - lifeguard and first aid stations, including equipment and units bases/lifeguard observation stations with equipment, tools and materials necessary to conduct rescue work are provided from the state budget." A very important negative impact on coastal tourism (Decision no 1136/18<sup>th</sup> September, 2007).

### **Strategies to improve Romanian legislative environment**

It is worth mentioning that the development and improvement of tourism activity in Romania, were developed a number of strategic documents such as National Tourism Master Plan of Romania 2007-2026, which was a set of strategies and directions to follow in the tourism activities, the National strategy for the Development of ecotourism in Romania 2016 - 2020 (June 2015), the strategy for Sustainable tourism Development in the

Carpathians and Strategy in the Culture sector and National Heritage for the period 2014-2020 (June 2015).

To improve the legislative environment, especially the Romanian tourism development, the Tourism Master Plan 2007-2026 has as main objective: the identification of the weaknesses in Romania's tourism industry which we have enumerated in the SWOT analysis and the the setup of the strategic directions of how it can be restructured how can be provided the necessary resources, but also how it can be regenerated in order to compete effectively in the global market.

In summary, the first part of this project is an analysis of all existing resources, equipment, infrastructure, key tourism indicators, and in the second part we explained issues and actions needed to improve tourism in Romania and objectives to be completed. The document ends with the last part of the measures presented in order of priority: the immediate, short and medium term. If implemented all measures and meet the deadlines for implementing this plan we believe that tourism development is a good way to have a tourism industry comparable to that of other countries and help relaunch the Romanian tourism. (Tourism Master Plan, 2007-2026)

Our Bulgarian neighbors are ahead us with both the number of tourists that annually cross the threshold, seaside or mountains, and the legislative framework. Bulgaria has a tourism law, since 2002, law number 56, not like Romania. Bulgarian legal framework in tourism establishes specific tasks for supporting the tourism sector and tourism development policies and strategies at the local level. Thus, the regional governor must implement the state policy in the regional territorial tourism. The Bulgarian minister even brought a number of amendments to the law which provides increased revenue sources for municipalities and use the revenue to finance specific municipal programs of tourism development. Municipalities will be directly involved in developing the tourism sector. Investments in this sector will increase, which will ensure the provision of better services for consumers and the development of public - private partnerships. (Bulgaria - Ministry of Tourism, 2016)

### **Conclusions**

Adopting more specific legislation on each part of tourism and their implementation is influenced by factors such as adequate political and governmental change, which - until now - had no legislative continuity. However, the presence of professional travel associations, the advisory board of tourism or any tourism related company may produce a change. A change that is essential, which will provide a foundation for numerous actions must be taken, among which we mention only identifying the best and necessary legislation and incorporating them into a single legal framework as a tourism Romanian law.

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## **EXPLORATION AND ASSESSMENT OF DIGITAL TECHNOLOGIES' IMPORTANCE AND ADOPTION ALONG THE VALUE-ADDED CHAIN**

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### **Abstract**

After the global “break-through” of the internet within the 2000s, today’s available technologies seem to “change” once more established business models completely by innovative digital technologies. Organizations using such new technologies expect to gain market advantages in terms of reduced operational costs, increased turnover, and simplified or even new business models respectively.

The present paper explores and compares the current mindset of business people within different business sectors regarding their estimated financial impact of digital technologies in general, their usage along the value-added chain as well as the current stage of existing digital skills for its adoption. Therefore, the authors performed a quantitative explorative study based on a questionnaire from 15<sup>th</sup> to 31<sup>st</sup> January 2017. The target of this research was to obtain information on how business insider's with different experienced background as well as sectors assess digital technologies in being mandatory key factors for (financial) outperforming on the one hand as well as to evaluate the organization’s current grade of digitisation and hence to evaluate unused potential.

The analysis shows clearly that age and job experience plays a major role on how digital technologies are being evaluated from a financial impact point of view. Furthermore, the study indicates that over almost all business sectors it is not really known if the own grade of digitisation is higher or lower than the one of the competitors. However, despite this the majority states that the digitisation has a strong impact on their business and further efforts needs to be done for adoption.

### **Keywords**

digital technologies, value-added chain, excellence, innovation, financial impact

### **JEL Classification**

M10, M13, M15, M30

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## **Introduction**

Much more than in isolated economies the globalization has forced organization “to plan ahead and anticipate coming developments if they are to be successful in the future” (Stern, 2008). One development is for sure the digitisation of businesses which is part of six so-called “megatrends” companies are facing still today (Rothlauf, 2010, p. 31): internationalization of the competition, increased environmental challenges, changed company cultures, demographic and social change, increased customer expectations, increased importance of the communication and information technology. Organizations which are managing and even leading these challenges with innovative market-oriented solution can be understood as excellent companies.

### **1. Increased importance of the IT and business digitization**

The crucial phase of the IT began already in the late 1960s: administrations as well as private companies invested in costly computer systems to process data in order to automate information flows which lead to a rapid increase of commercial data activities (Fleischhack, 2016). In the end of the 1990s, large distances were no more a real challenge for any kind of interaction between companies worldwide in terms of knowledge exchange or communication. Products from almost all over the world could already be ordered online and shipped to any place. Furthermore, business processes were being automated with help of data processing systems out of e-commerce platforms and information were already shared internally as well as externally along the complete value adding supply chain of companies (Amman and Dickel, 1998).

Companies not using available technologies risk in being less competitive in future. Porter describes two ways in creating a competitive edge: either differentiation or cost-leadership. In this regard, he is pointing out that analyzing the value chain is more appropriate than analyzing the value creation itself (Porter, 2014, p.68). Latest research show that the usage of digital technologies does obviously have a positive financial impact (Strauss, 2013, p.19). The usage of digital technologies differs within different business sectors: “Digital leaders” such as software companies are more digitized than sectors such as construction companies which was confirmed by the McKinsey consulting company (2016).

### **2. Research targets**

This study focuses on the increased importance of digital technologies and its usage as a competitive edge: it shall provide feedback from the market on the (financially) expected return on investment and provide insight information on the sector-related usage within the value-added chain as well as identify how well the participant see their organization prepared for the digital time-age.

### **3. Research Methodology**

The present paper represents an explorative study based on a quantitative survey to identify tendencies as basis for possible further studies as well as to cross-check recent studies within bordering subjects. The characteristics of the study is shown in table no.1.

As the questionnaire was addressed only within online business networks it can be suggested that the participants have a basic digital mindset which shall be advantageous for the answers’ quality. Questions with graded assessments, evaluations or ratings were based on a 6-step-scaling to avoid indifferences by offering an average value. However, in most

cases the value “unknown” was also offered separately.

**Table no.1: Characteristic of the study**

Aspect	Characteristics
<b>Survey period</b>	Quantitative questionnaire from 15th January - 31st January 2017
<b>Form of collection</b>	Online survey with 131 fully answered questionnaire (out of 199 reached business people who opened and started the form) representing ~ 65% response rate.
<b>Regional focus</b>	German speaking countries (Germany, Austria, Switzerland)
<b>Execution of survey</b>	Performed by the authors with help of online <a href="http://sosciesurvey.de">sosciesurvey.de</a> - platform
<b>Addressee of the survey</b>	Business people within German speaking online business forums (XING)
<b>Data volume</b>	42 single questions (hereof 9 sociodemographic questions)
<b>Precursor studies (reference point)</b>	The search for Excellence in Digital, 2013 (Strauss, 2013); Digital Europe: Pushing the frontier, capturing the benefits, 2016 (McKinsey Global Institute 2016)

#### 4. Research Results

##### 4.1 Demographics

In total, 199 businesspeople could be reached to participate in the online-survey with a return rate of 131 representing ~65%. The age-spectrum of the interviewed professionals ranges from 20 to 67 years, while 30% are female and 70% male. 45% of the participants are executive employees, 43% are non-executive employees. The remaining participants are mainly students and trainees working within organizations. In total, a high academic level could be registered: more than 70% of the participants holds a university degree (Bachelor, Master’s Degree or PhD). Due to the fact, that the number of responses in the three sectors Professional Services, IT & Communication (ITC) and Basic goods manufacturing make up 49% of all 20 sectors, the information quality extracted here should be considered higher for all sector-inside information. Thus, the analysis of specific sector-related information will focus on these three sectors only.

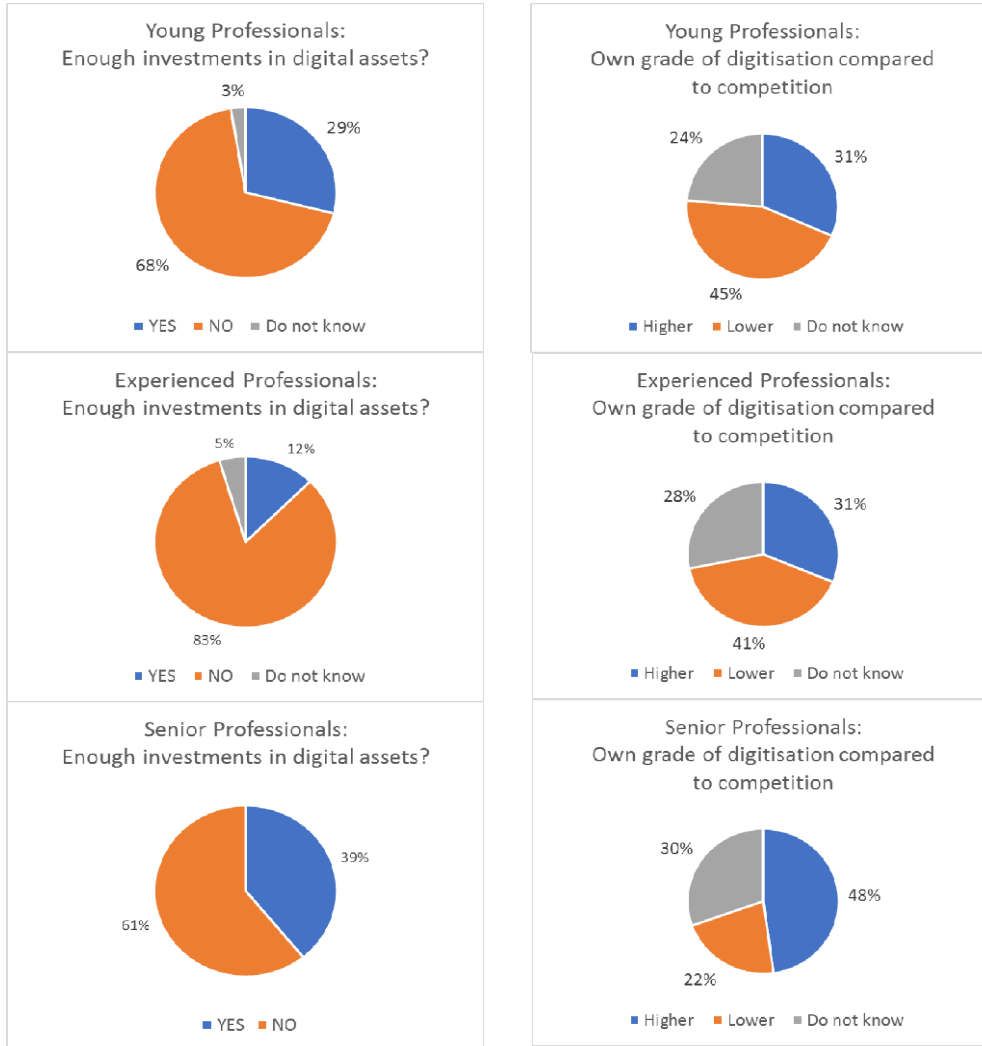
##### 4.2 Assessment of digital technologies’ rated importance

###### 4.2.1 Digital technologies and financial evaluation

The research showed that by classifying the ages into three age-groups (young professionals up to 30 years old, experienced professionals from 31 to 50 years and senior professionals from 51 years on) and analyzing their answers to the question if enough investments have been made into digital assets, a clear correlation between age and the



knowledge of digital potential could be identified: while young professionals have a greater digital user experience (Paul and Stegbauer, 2005), their grasp of sector-specific know-how shall be less than of senior professionals because of less experience. Due to that, lower age groups might state digital investments into assets as not sufficient, while 39% of senior professionals tend to view them as adequate (Figure no.1).



**Figure no. 1: Investments into digital assets seen by different age groups**

**Figure no. 2: Grade of digitisation compared to competition**

Accordingly, experienced professionals have spent enough time in the sector to understand the business deeper while still being young enough to grow up with new technology and being aware of its potential. With 83% they show the highest interest in more investments

into digital assets and the lowest satisfaction with the digital status quo (12%). Investing into digital assets at a maximum efficiency concerning outcome translates into combining a senior professional with exceptional knowledge about the business with an experienced professional with a background in IT.

Irrespective the participants' age the impact of digital technologies on the economy in general is rated in being strong or very strong by over 80% of the participants.

It was also found, that the age has an impact on the view of the correlation between digitisation and an expected financial impact. While only 5% of all young professionals think that digitisation does not have a positive financial impact, 26% of senior professionals don't see the financial benefit. Linked to this outcome a Commerzbank (2016, p. 12) study points out, that more than half of all employees (56%) wants to uphold the status quo concerning digitisation while 40% have trouble identifying with new technology.

This data suggests, that the digital status quo of a sector or company isn't set by technological limits, but rather by appreciation and identification of employees.

In general, most participants (69%) state that digital technologies do have a positive financial impact and hence it is beneficial to invest in such new technologies. This points out that there is a gap between appropriate and existing investments in these technologies.

#### **4.2.2. Evaluation of competitions' grade of digitization**

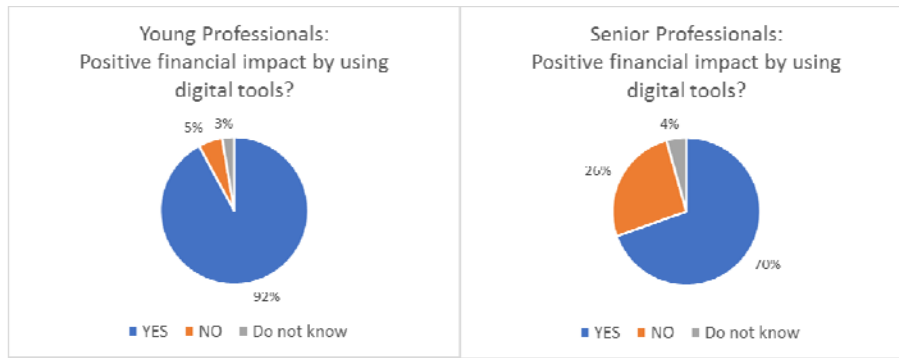
Another surprising result of the study was that all age groups young, experienced and senior professionals cannot clearly evaluate their own grade of digitisation in comparison to the competition (Figure no. 2).

This might result in different reason such as interviewed people are not familiar with digital potential which does not allow them to accordingly judge the issue at hand; or, the interviewed people are not familiar with the sector's or company's respectively internal grade of digitisation; or, the interviewed people are not familiar with the sector or company's respectively external grade of digitisation; or, the reason might be that the interviewed people do not have contact or access to market-related sources such as customers.

Especially the experienced and senior professionals shall be aware of their market's grade of digitisation in being able to setup the company's right strategy in this regard.

#### **4.2.3. Usage of digital tools and employees' digital skills**

The investment in digital technologies is for sure the first step in increasing the grade of digitisation. However, the adoption and real usage of the new technologies is naturally needed to ensure a positive business impact. Therefore, the study included a question if a positive financial impact could be assumed if the digital tools are being used within the company. This was confirmed by a vast majority (Figure no.3). Nevertheless, the young professionals do see a higher impact (92% of the young professionals) than the seniors (70%).



**Figure no. 3: Financial impact by using digital tools**

In addition to this results the study also showed that especially senior professionals rate the overall digital skills within their company as being rather strong/very strong (87%) contrary to the group of experienced professionals (52%).

At this stage, only assumptions could be undertaken why this spread of self-assessment is as high especially in comparison between both groups. However, it seems that digital skills are still missing to fully adopt the existing technologies and lever the digital potential.

### 4.3. Grade of digitisation

#### 4.3.1 Digital value-added chain

In contrast to the study “Digital Europe: Pushing the frontier, capturing the benefits” by the McKinsey Global Institute in 2016 the focus of this research paper aligns the grade of digitisation of every sector with the value-added chain after Porter. This allows for a more detailed analysis within each sector and provides an inter-sector comparison.

In comparison to McKinsey, this research has found the same gradation between the three sectors in focus (Figure no.4): ITC leads with an average grade of digitisation of 4,3 (of maximum 6), followed by the sector professional services (3,7).

Basic goods manufacturing ranges at 3,3. Looking at the primary activities of the value chain, the average grade of digitisation measured in the whole sector-panel ranges from 3,4 to 3,62. This marginal difference hints towards the thesis, that within a sector, the level of introduced technology is roughly the same and digital barriers are less likely.

Comparing the cross-sector average of digitisation within primary and secondary activities, HR-processes are clearly behind (3,18), while the infrastructure is rated at 3,9. This includes of course communication mediums like computers / smartphones which are found in almost any office nowadays.

The result can be interpreted in such a way that as for HR more interpersonal aspects dominate the processes as for the infrastructure of organizations where, e.g. Enterprise Resource Programs (ERP), processes are more related to human independent workflows.

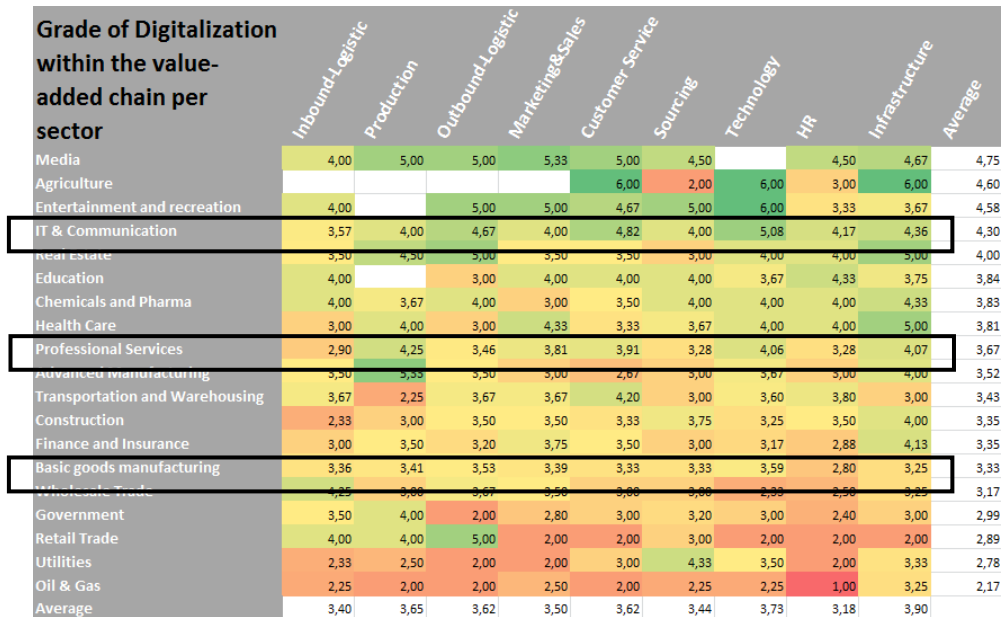


Figure no. 4: Heatmap of digitisation acc. to Porter’s value-added chain with the three selected focus-sectors

### 4.3.2 Digital Technologies

The questionnaire included also questions which digital technologies are being used or in adoption: With exception to the wide usage of the email-technology (usage rate of 98% over all business sectors) specific digital technologies are more or less used depending of business sector or type of business (B2C vs. B2B).

It is noticeable that still many sectors do not use online shops within their marketing strategy even if this technology is well developed within the markets since long time. Having a look to the three focused sectors, 25% only of the participants within the Basic good manufacturer use e-shops (professional services 13% and ITC 8%). However, new digital services such as cloud-based services become more important: ITC 77% usage, professional services 50%, Basic goods manufacturers 35%. Far behind within all sectors are still Internet-of-things technologies and customized (mass-) manufacturing technologies.

### Conclusions and further research

The present study has shown that digital technologies are being seen as considerable and relevant for achieving positive financial results. Furthermore, the digitisation has an essential impact on the economy in general.

According to the research results more investments are still required within all analyzed business sectors to close the gaps along the complete value-added chain. However, the usage and adoption of existing technologies differs within the business sectors and digital skills are still missing within the employees. The study has also shown that young, experienced and senior professionals do not always evaluate digital facts the same way. Both extreme experience levels have different knowledge and views on the digital

potential, knowledge and skills within their organization. It seems that the intermediate experienced professionals build the bridge between both pole groups in terms of having enough business experience on the one hand and still being young enough in having enough digital affinity. Therefore, it could be beneficial for organizations to form inter-organizational teams on specific digital topics for increasing the level of excellence and to obtain a competitive edge.

In this regard the study has also shown that the own grade of digitisation could not be clearly evaluated in any case in comparison to the competition. The research illustrates, that both young as well as senior professionals cannot specify on this matter in a distinct way. This might lead to uncertainty and an unclear decision making processes.

As for any business strategy market knowledge is needed to gain contrast and to identify potentials and threats for strategically measures. However, existing and uprising digital technologies will still need to prove their worth within the value-adding chain itself. This analyze was not part of this study but might merit to be evaluated in a separate study.

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## OPPORTUNITIES AND CHALLENGES OF THE INTERNET OF THINGS RELATED TO CONSUMER

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### Abstract

Nowadays, we have connected devices that meet our daily needs, "smart objects" that monitor our homes, cars, work environment and physical activity. These devices have gained crucial importance in our life. Hereby, we are entering into a new era, one in which the Internet of Thing (IoT) will replace the traditional Internet that we know today. Although IoT is expected to have a massive impact on individuals, it is still in its early days and many challenges lie ahead.

As consumers and users of connected smart devices, we focus to such an extent on the incredible functionality of IoT that we often forget to think about the possible implications for our private life and security. Many questions arise about the vulnerability of these devices, which are often installed outside of a traditional IT structure, without integrated security attributes. Thus, expected benefits must take into account the challenges especially related to privacy and security that IoT may pose. Data loss, malware, unauthorized access to personal data, intrusive use or illegal surveillance are risks that need to be addressed. Beyond compliance with legal and technical norms, there are important implications that IoT has on society, in general, and on consumer, in particular.

This paper is motivated by the above considerations, providing insight into challenges and opportunities of IoT related to consumer. Through reviewing the literature, the article firstly clarifies the significance of this concept and then discusses the applications of IoT related to individual consumer, highlighting those processes and activities that can be dramatically changed by IoT and the wide range of challenges faced by these networks.

**Keywords:** Internet of Things (IoT); connected smart devices; consumer; security; privacy.

**JEL Classification:** O33.

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### Introduction

Kevin Ashton, technology pioneer, cofounder and executive director of the Auto-ID Center at MIT (Massachusetts Institute of Technology), has coined and used the syntagma "*the Internet of Things*" (*IoT*) in a presentation he made in 1999 in order to describe the network connecting objects in the physical world to the Internet. Referring later to this concept,

Ashton (2009) affirmed that IoT has the potential to change the world, just as the Internet did or beyond.

Over time, the term has evolved into one that describes the IoT as a network of entities that are connected through any form of sensor, enabling these entities, to be located, identified, and even operated upon. IoT is the concept of basically connecting any device with an on and off switch to the Internet and/or to each other (Morgan, 2014). The IoT is a giant network of connected "things" (including people and any natural or man-made object that can be assigned an IP address and provided with the ability to transfer data over a network). Considering the existing studies in the relevant literature regarding the IoT, we note the following aspects: the majority of existing studies have investigated application of the IoT from firm or government perspectives (Schlick, Ferber and Hupp, 2013; Weber, 2010; Zhao et al., 2013), a multitude of papers focuses on technical aspects, presenting the IoT design, architecture and implementation (Bing, 2014; Gubbi et al., 2013; Weyrich and Ebert, 2016) and only few studies investigated IoT's impact on consumer (Gao and Bai, 2014; Kim and Shin, 2015; Shin and Park, 2017). Given the complexity and heterogeneity of IoT, it is required to examine the matter from consumer point of view that encompasses social and user-related factors. Such as all new developments, there is potential for both increased opportunities and risks for individual users. Under these circumstances, this paper aims to present such an approach by detailing some of the benefits of IoT related to consumer and endangerment that are part of the IoT phenomenon.

### 1. Current state of knowledge concerning Internet of Things

Internet of Things (sometimes called "*the Cloud of Things*") generally refers to "a global infrastructure for the information society, enabling advanced services by interconnecting (physical and virtual) things based on existing and evolving interoperable information and communication technologies" (ITU, 2012, p.2).

The term "*Internet of Everything*" is sometimes used referring to an almost limitless number of connections that could be possible between people, systems, devices and industry. Also, European Commission (2010) addressed the Internet of Things as a "*great Internet*" that will contain all items daily used, from home appliances, furniture, clothes, mobile phones, coffee makers, washing machines, headphones, lamps, wearable devices, food, medicines, vehicles, roads, buildings etc.; all these can be spotted, identified, addressed and controlled via the Internet.

The Internet of Things is already a daily presence in our lives: in our homes where smart counters coordinate and save electricity consumption; the Internet connection in our cars; the OnStar system (US) or eCall (EU) system that triggers an automatic response in case of accidents, follows the car if it's stolen or provides technical assistance as required; on our bodies as an insert in the smart shirts etc. "Smart" or "intelligent" is a term increasingly adopted to describe things or processes that have the ability to compute, connect and communicate to differentiate from the machines and equipment working in isolation.

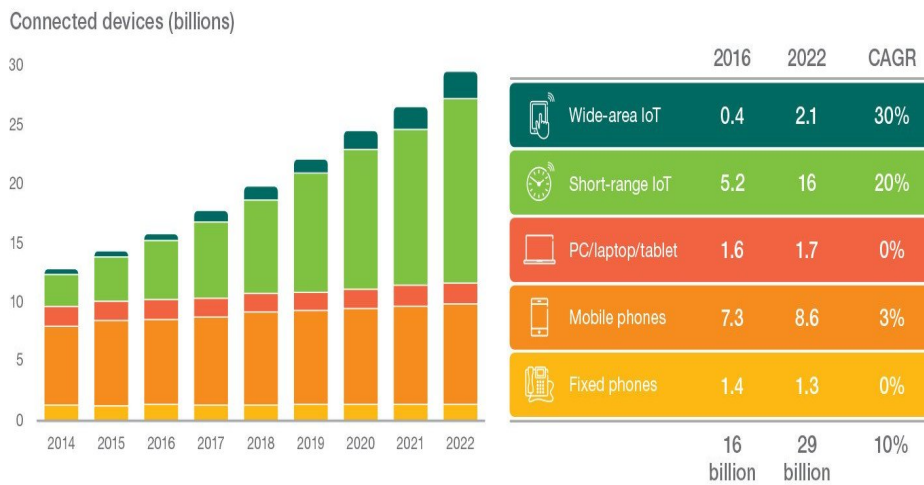
Nowadays, broadband Internet is become more widely available and more devices are being created with Wi-Fi capabilities and sensors, creating the premises for the IoT. Also, the tremendous drop of prices for database storage devices required for the collection, storage and processing of trillions of bits has an important role in creating the premises for IoT.

Likewise, there is a confluence of several *devices and applications* that have transformed an area of "science fiction" into reality, such as: barcodes, RFID (Radio Frequency

Identification) devices (tags), NFC (Near Field Communication), SaaS (Software-as-a-Service), active sensors, IPv6 Internet protocol which enables the Internet address to be available in any object that has software stored: toothbrush, coffee machine, refrigerator, dishwasher etc.

Another common related term, *M2M (Machine-to-Machine)* is a technology which enables devices of the same type to communicate. To allow these communications, devices had to be connected to each other and to larger systems using standard protocols like Wi-Fi, Bluetooth and Zigbee. M2M communications allows sensors in one place to communicate with control systems for an automated response. Industrial processes have widened M2M further to include connections with human interfaces, sometimes referred to as the "*Industrial Internet of Things (IIoT)*". The IoT has an impact on end consumers, while the IIoT has an impact on industries like manufacturing, aviation, agriculture, oil & gas, transportation, energy etc. While the industrial IoT got an earlier start, the consumer IoT is not far behind.

For every person living on earth, there will be at least 2, maybe even 6 connected "things" by 2020. Ericsson's mobility report (2016) forecasts around 29 Billion connected devices by 2021. 18 billion of these will be related to IoT (in this forecast a connected device is a physical object that has an IP stack, enabling two-way communication over a network interface). Between 2016 and 2022, IoT devices are expected to increase at a CAGR (compound annual growth rate) of 21 percent. In the figure no. 1, illustrating all connected devices, IoT is divided into short-range segment (consists of devices connected by unlicensed radio with a typical range of up to around 100 meters - such as Wi-Fi, Bluetooth and ZigBee - and devices connected over fixed line local area connections) and wide-area segments (consists of devices using cellular connections (3GPP-based - 3rd Generation Partnership Project - a collaboration between groups of telecommunications associations) as well as unlicensed low-power technologies (such as Sigfox, LoRa and Ingenu)).



**Figure no. 1: Forecast regarding connected devices**

Source: Ericsson, 2016, p.33



Determinants of the proliferation of IoT are appearance and development of the following technologies or applications (Crânganu, Luchian and Breaban, 2015):

- *Artificial Intelligence (AI)* - the goal of artificial intelligence is to operate with large amounts of unstructured data - such as those produced by IoT devices - and to make actionable decisions related to these data. In short, AI is the technology that gives meaning to data and engender meaningful instruction, such as commands for IoT devices to perform specific actions.

- *Machine Learning* - is the umbrella term for algorithms that, automatically or with a human support, identify patterns and determine what type of behavior of IoT devices tends to create the desired results. Based on learning algorithms, computers can act without being explicitly programmed. In the last decade, machine learning technology has given to us, among other, cars without drivers, speech recognition, effective search over the Internet and an extensive understanding of the human genome.

- *Data Mining* - is the analytical process of exploration of the large databases - Big Data - for searching and finding consistent patterns and/or systematic relationships between different variables, followed by application of detected patterns to new datasets.

The Internet of Things appears as a mix of household applications and intelligent industrial components. From an *application/industry* point of view, Lueth (2014) has developed a market segmentation that is suitable for understanding the IoT ecosystem (figure no. 2).

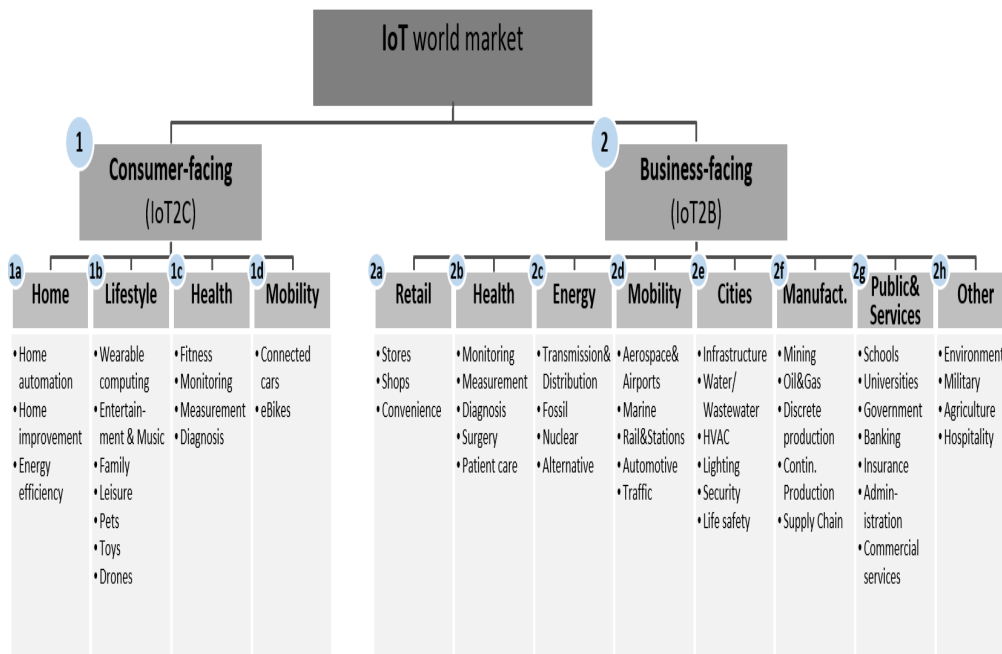


Figure no. 2: IoT market segments

Source: Lueth, 2014

Also, the McKinsey Global Institute (2015) describes the broad range of potential applications in terms of "settings" where IoT is expected to create value for industry and users in environments such as homes, offices, factories, worksites (mining, oil and gas, and

construction), retail environments, cities, vehicles, and the outdoors (including autonomous vehicles (outside urban locations), and flight navigation, real-time routing, connected navigation, shipment tracking). It is also included a "human" setting for systems/devices that attach to the human body and enable to monitor and maintain human health and wellness.

## **2. Main consumer applications of the Internet of Things and potential benefits**

The IoT technologies apply or will apply soon in a myriad of areas. Currently, major consumer applications of the Internet of Things include (Consumers International, 2016; McKinsey Global Institute, 2015; Savu, Tomescu and Băjenaru, 2017):

- *Wireless wearables and portable devices* track and record physical activity like exercise, eating, sleeping or behaviour like reading, commuting etc. Whether it is Jawbone Up, Fitbit Flex or Apple SmartWatch, wearable devices constitute the majority of the Internet of Things applications for consumers. As indicated by recent studies (Accenture, 2014), is more likely for consumers to see value in health & fitness wearable technology.

- *Smart home/home automation* is a concept referring to the connectivity within the housing. A typical house is now a lot of devices that are ready for automation by IoT, such as thermostats, smoke detectors, lamps, windows, doors, locks and more. Some devices are related with the entertainment area (e.g., Smart TV), others are related with lighting, heating, access and security. *Home applications* will dominate the consumer IoT market in the next years. Among the best known organizations involved in the field are included Nest, Apple, Philips and Belkin.

- *Intelligent health system and connected medical devices* have enormous potential for the welfare of people in general. New types of instruments for real-time monitoring health and for improve medical decisions based on large data sets of the patient are some of the expected benefits. IoT will have the greatest impact on the way diseases are diagnosed and treated. Basically, through IoT healthcare can be more accessible. For example, the IoT devices allow the rapidly and early detection of abnormalities in the body, followed by a diagnosis and a proper treatment. Medical institutions could release drugs more efficiently by analyzing feedback from IoT devices. These devices can be of various sizes, implanted in the human body or monitoring the patient in his living environment. In other words, IoT devices can be used to monitor patient health and transmit all the information necessary for medical staff in order to provide a more accurate and personalized care.

- *Connected cars and self-driving cars* will change the world. Currently, the driver must manually configure devices and their functions, from radio to heating/air conditioning, navigation and others. IoT devices embedded in cars will release drivers of worries and configure many of these current applications. Whether is about self-driving cars or assisted drivers, connection with other machines, mapping services or traffic control will play an important role in the future. The next generation of entertainment systems on board of the vehicle and remote monitoring are also interesting concepts. A large number of manufacturers, which plays an important role such as Google, Microsoft and Apple have developed platforms dedicated to connected vehicles.

Also, *smart city* solutions promise to meet the problems faced by city dwellers. These problems include traffic congestion, noise, pollution and urban insecurity. Data produced by smart cities will be processed and analyzed to determine how to improve quality of life in each city, from the management of financial resources to the fight against crime. The biggest advantage of using IoT technology are savings to the municipal budgets. Other

areas where smart cities will achieve cost reductions, are the consumption of water and energy, management of domestic and industrial waste, public safety (firefighters, police officers, rescue, traffic controllers) or intelligent buildings (e.g., Seattle is a world leader in its efforts to build buildings with low energy consumption).

The capabilities and applications of Internet of Things primarily involves the following types of benefits for individual consumers:

- *Convenience and efficiency* - the disparate nature of providers, regulators and systems makes many daily consumer experiences inconvenient, time consuming and inefficient, meanwhile automating tasks such as reading energy meters or checking use by dates of food and medicines or supplies being reordered based on needs can save time and money (Sirbu, Săseanu, Ghiță, 2015).

- *Enhanced experience* - more interconnections between devices and aggregation of information could increase user convenience, but a step on from convenience is the idea that consumer experiences could be enhanced or made more enjoyable by Internet of Things technology. IoT can generate a dramatic increase in the quality of life.

- *Decision making support* - even some critical information, found on time and shared with right people can lead to more informed decisions, daily processes optimization, identify new opportunities, and predict behavior and enabling consumers to act themselves or outsource that task to services based on these patterns of behavior and use.

### 3. Challenges faced by the Internet of Things

IoT implementation on a global scale, affecting billions of people and devices has not only benefits. In this new era of connectedness, some issues seem essential:

- *Security and data privacy* - the problem lies in the fact that most of the equipment used every day is marketed without taken into account issues like *confidentiality* or *data protection*. Users generally assume that businesses and legislators have taken these risks into account and solved them. Or, if customers do not understand the importance of data confidentiality and do not ask for it, manufacturers do not deal with it, knowing that purchasing decisions are not based on this criterion and compatibility, price or design issues are more important. Moreover, the problem has been aggravated by the fact that many of us have accepted, voluntarily or with a bent, concessions in respecting our privacy and our security to get what we consider more precious, namely, access to the cutting-edge technology. Often, Internet connections are vulnerable, regardless of their type (WiFi, Bluetooth, cellular, satellite or microwave) or how they are connected to the "cloud" or other servers and services set to search, process or receive data from an IoT application. These vulnerabilities may allow a hacker to intercept, tamper with, or block communications, and in some cases to take control of a physical device. For instance, children's video surveillance systems can reassure parents by allowing to watch their children at any distance from smartphone. But if the system is not protected, they can expose their little ones to danger. Also, recent experiences have shown that it is possible to hijack a vehicle on its way through its entertainment system and to disable the accelerator. In the same way, an unauthorized person will be able to reset the thermostat to a high temperature so that the boiler works nonstop or to turn off the thermostat so that all the radiators are frozen and broken while we are on holiday. Issues become even more serious if we talk about health and vulnerability of medical devices, since it is possible to remotely manipulate the infusion pumps of some drugs (e.g., morphine, antibiotics or those used in chemotherapy), defibrillators, scanners or X-ray machines.

- *Tolerance to errors* - The world of things is more dynamic and mobile than the world of computers, with contexts that change rapidly and in unexpected ways. However, users want to rely on things that work properly. Structuring the Internet of Things in a robust and reliable mode requires multiple level redundancy and the ability to automatically adapt to changing conditions.

- *Scalability* - the Internet of Things has a potential for global application beyond the conventional Internet. Things, however, mainly cooperate in a local environment. So, basic functionalities such as communication and service discovery should work as efficiently in both environments (Savu, Tomescu and Băjenaru, 2017).

- *Interoperability* - smart objects can be subject to very different conditions, such as the available energy and the bandwidth required for communications. However, in order to facilitate communication and cooperation, common practices and standards are necessary (Savu, Tomescu and Băjenaru, 2017).

- *Managing large data volume* - all major technology companies are concerned about and allocate significant amounts of money for managing the data that each Internet user generates. We can refer here on analyzing consumer habits, leisure timelines, health monitoring, financial investments, virtually any detail in user life can be taken as data that can be interpreted. Managing the volume of these data is still a challenge. In order to take advantage of the disparate data, it must be possible for service providers to extract some generalized conclusions as a result of analyzing and interpreting data. However, generating useful information from raw data from sensors that can trigger further action is not a slight action.

As indicated by recent studies (Accenture, 2014), price, security and privacy are concerns of the consumers, but companies can overcome them by demonstrating value of connected smart devices to consumers. Better educating consumers will be an important factor in growing this market.

### **Conclusions**

The Internet of Things designates billions of connected smart devices changing current data volumes about our lifestyle, our work habits, and our relaxation practices. It is supposed that these devices will make our businesses more productive and our lives simpler, healthier and smarter, but there is often a reverse. Connectivity of IoT devices is simultaneously a prerequisite and an Achilles' heel. Communication networks that allow these types of devices to exchange information are not coded or protected. It's like leaving open the door of your house. The interior of our homes, our cars, our pets and even our refrigerators are accessible with one click.

For increased security in IoT, we need to start by creating secure technologies with effective real-time privacy controls. Implementing IoT applications requires the careful knowledge about the most critical issues concerning the privacy protection and secure transmission of data generated by the connected objects through IP networks.

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## THE CONNECTION BETWEEN “POST-TRUTH” SOCIAL MEDIA AND THE QUALITY OF PRODUCTS AND SERVICES

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### **Abstract**

The concept of quality has very ancient roots, being treated in literature both as a philosophical concept and as an economic concept, with a variety of points of view related to its nature. The explanatory dictionary of the Romanian language defines quality as “the totality of characteristics and essential aspects under which a thing is what it is, unlike the other things”(DEX, n.d.). Regardless of their opinion on quality, the concept is certainly very important and represents a concern for all people.

Social media, the present and the future of communication, can highly influence consumer’s behavior, thoughts, personal beliefs and emotions. We identified that both customers and providers adopt a post-truth behavior in everything they do, including the use of social media. People value and pay more for the way someone make them feel: people buy feelings and emotions.

Both the connection between social media and quality and also the “post-truth” characteristic of social media are very important, popular nowadays and very connected to our current reality.

Based on a focus group research, this paper was aimed to study the attitudes and behavior of the suppliers of goods or services in relation to the quality of the products and services they provide, to demonstrate they are driven by their personal belief and by their emotions and also to find out their opinion regarding social media and its usefulness in business.

**Keywords:** social media, post-truth, quality, business, emotions, subjectivity

**JEL Classification:** M10, O30

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### **Introduction**

We do want to raise money for us and our families in order to have a better life and to have respect from the others. We want attention, we go for shopping, go out with friends and family, we look for quality things, we want to spend quality time, we want to be informed and to be active on the Internet, to have access to everything that is new and to get in touch with the others all the time. We all need and we do all this because we are human beings

and we all function driven by emotions. We want respect, we want love, we want attention because this is how we feed our soul and mind.

Social media and consumer's behavior are also connected to our feelings. We buy things being led by our emotions. We want to buy quality things in order to feel better and to satisfy our needs. We are permanently connected to the Internet and to social media because we want to be informed, because we want to get in touch with the others, because we save time when shopping online and we find there everything we need.

Personal branding was created by media, social media brought it to the rank of art, but it comes from our feelings and its results feed our emotions: how we dress, our education, the job we have, the neighborhood we live in, the choice of our life partner, the choice of our car or of our friends, how we negotiate, how we talk, how we keep our promises, what we post on Facebook or Instagram. Everything we do and everything we are is connected to emotions. Influence and power means emotions. People value and pay more for the way someone make them feel. People buy feelings.

The word "post-truth" was chosen as "Word of the year" 2016 by the Oxford Dictionaries. They motivated this choice because, even if the word has been in existence for the past decade, they have seen "a spike in frequency" last year, "in the context of the EU referendum in the United Kingdom and the presidential election in the United States. It has also become associated with a particular noun, in the phrase *post-truth politics*". (Oxford Dictionaries, 2016).

The Oxford Dictionaries present "post-truth" as an adjective "relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief: 'in this era of post-truth politics, it's easy to cherry-pick data and come to whatever conclusion you desire' or 'some commentators have observed that we are living in a post-truth age' (Oxford Dictionaries, 2016).

Social media, the world's largest cocktail party, is by excellence post-truth. Consumer's behavior and his perception regarding the quality of the products or services are also post-truth because all are driven by their emotions. In order to demonstrate this, we conducted a qualitative research. It was chosen the discussion method focused on group (focus group).

### **Methodology**

The focused discussion has been carried out to study the attitudes and behaviour of the suppliers of goods or services in relation to product quality or services they provide, to demonstrate they are driven by their personal belief and by their emotions and also to find out their opinion regarding social media and its usefulness in business.

In order to accomplish the requirements of this study and in order to obtain information about service providers or products on the quality and the social media, it was decided the establishment of a qualitative research, consisting of a focus group (Bucharest, 2017). The group of participants consists of 10 persons, service providers, with ages ranging between 28 and 55. All participants are high-graduated, live in Bucharest and use social media either for personal or professional purpose.

For the requirements of the focus group, it has been made a discussion guided by a moderator, who addressed to the participants 7 open questions relating to the way they perceive the quality and social media in general or in relation to the business. The focus group was conducted in February, 2017. Its duration was approximately 90 minutes.



## **Results and Discussions**

The first question asked by moderator was "What does 'quality' mean to you?"

Many people connect quality to excellence or to a higher level, others see and understand quality as the lack of defects. In 1978, the American Society for Quality Control (ASQC) introduced a formal definition of quality: "The totality of characteristics of a product and service that ensures its ability to meet specific needs." Quality, in its various forms, is the basis for the study of the science of goods. (Onete, 2004).

Being quality oriented appears to be a business philosophy that provide competitive advantage by creating superior value for customers. The existence of such guidelines was analyzed in several interantional studies. For example, Gummesson (1991) considers quality an aspect wich integrates both production and marketing. Introducing the principle of total quality marketing, Kotler (1994) suggests that the concepts of quality and customer satisfaction are linked by trade. Grant, Shani and Krishan (1994) refer to quality management claiming that quality management is more than a unifying goal and a mechanism within the companies, representing a business philosophy.

Asked what it means to them, respondents were reported to their experience as suppliers of goods or services. For one of the respondents, quality means very good reviews and new customers from recommendations of existing ones. For this one, the quality also means a very high customer retention rate, whereas the cost of acquisition of new clients is much higher in comparison with existing customer retention. Another participant stressed that the quality of a product means all traits that distinguish it from the others. For another respondent, quality is a standard, a deviation compared to the normality, in a positive sense. Quality varies and has a major subjective component, since it is measured related to the consumer's expectations, beliefs and emotions (Drăgulănescu, Popescu, 2015).

According to the study conducted by Ernst & Young (2014), online consumers in Romania are influenced most by quality and product warranty / service with a percentage of 32%, but globally the most important factors in the decision to purchase online are the price and the delivery (rate of 29%). For the Romanian products' consumer price and delivery ranks second among the factors that have a role in the digital consumer behaviour (Mairescu, Dina, Pleșea, Felician, 2015).

Quality is the final customer's satisfaction in relation to the portfolio of products or services of a company. Therefore, it can be said that the word "quality" is equivalent to satisfaction. Last but not least, quality means good service that the client may not be able to refuse.

The second question asked respondents was "What do you think about social media?"

Jacka and Scott (2011) argued that "there is no single definition for social media." For many people, the well-known social networking sites such as Facebook and Twitter are the social media symbols. And this is because they have become extremely popular worldwide regardless of demographics, such as race, age, gender etc. and have hundreds of millions of users. Jacka and Scott (2011) considered social media to be "a set of technologies of web broadcast that allow democratization of content, offering not only to publishers but also to all users to provide content." (Cheung, Thadani, 2012). The Oxford Dictionary (2011) defines social media as "websites and applications that enable users to create and share content or to participate in social networking". Kaplan and Haenlein (2010) developed their own definition. So, in their opinion, "social media is a group of applications used on the Internet and based on the ideological and technological foundations of Web 2.0 that allow the creation and exchange of user-generated content." In 2013, Bolton said that social

media is defined in simple terms as "any online service through which users can create and share a variety of content."

To this question, one participant replied that he believed social media as an open gate to communication, to make them known by a certain type of clientele. It's an easy, cheap and efficient way. Social media has conquered the world. It changed lives and changed their way of communication. Generally, social media is a term that describes the multitude of digital platforms that allow interaction, networking and collaboration between those who use them. For users, social media means social networking, full freedom of expression, a source of information, the decision maker, entertainment, research, place of interaction based on interests, play space. For brands, social media is the most convenient, fast and new space for conversation, connected to relevant audiences, long relationships, community, sustainability, promotion, monitoring and feedback.

Social media has an increasingly higher role in promoting the image of a brand, services or products. Social media is the future of communication, a network through which you can interact and get feedback as soon as possible. A participant considers social media a mechanism with a major impact in promoting or fighting against a product or service. Another respondent argues that social media is a phenomenon that has transformed communication and interaction of individuals, but if not used properly, it can become harmful to them. It gives a quick access to information, it can be used to promote political ideas, opinions, or ideas for business, to disperse information and to connect people from different parts of the world. A participant to the discussion considers that social media is something with positive and negative parts and he believes that it can lead to a large dose of information, used for the opinion manipulation. For years, communication people have controlled public perception of the companies. Today, a 16-year-old child with a Facebook profile can ruin it by a simple post. Another respondent believes social media as a binder, but sometimes overly used. Advertisements and advertising abound, most of the times in excess, they become almost uncomfortable, and the user or the final user can become, in turn, immune to the messages.

Moreover, social media can very quickly punish the errors made by the user. For example, there have been many cases over the years in which employees of various companies responsible for the company's Facebook page gave answers to certain postings on Facebook, with whom they did not approve, using insulting words. The problem was that, by mistake, they posted from the company's Facebook account instead of posting from the private one, and the language used was not in accordance with the company's values, bringing serious damage to the integrity and reputation of the company.

In case a negative campaign is launched via social media, like in the example given above by our participant, the customer relations service of the company in question is obliged to react, or the effect could be devastating. Because the effect of such a campaign is amplified and sustained by the existence of such a great number of applications and sites that allow the messages to reach a great number of users, business organizations should elaborate a communication strategy to answer the accusation, which should be prompt and well planned. (Onete, Pamfilie, Dina, Vlad, 2014).

Also concerning the negative parts of the social media, a respondent recalled that, studying the effects of social media habits on the state of the users, researchers at the University of Medicine School Pittsburgh have discovered that, as much as young adults use social media, as much they are exposed to the states of depression. Facebook can feed anxiety and enhance feelings of inadequacy.

The next question was "What do you understand by social media? Just Facebook? or specialty blogs, forums etc? "

The simplest definition would say that social media refers to online interaction between internet users. Practically, every online platform that allows free exchange of ideas / views between users, is called social media. Moreover, nowadays any website allows post comments, so we can say that the Internet itself is Social Media (Negrea, 2014). Solomon and Tuten identified the main functions of the social media implementation in marketing (Guillet, Kucukusta, Liu, 2015). In 2013 they found four areas as the basis on which social media marketing should focus on: social community, social entertainment, publishing and social commerce.

All respondents agreed that social media was not only Facebook but much more. One of the respondents considered that social media include Facebook, Twitter, blogs, feeds from websites, Instagram, Pinterest, forums, Twitter and the totality of the sites or applications where you can interact with others.

In section 4, the respondents were asked if social media was useful in business and were asked to justify their answers. All replies were affirmative. Social media was a tool that could be easily accessed inexpensively and with high "outlet" category of customers "of the future", it was the argument of the first respondent. Social media provided a constant information support. One respondent stated that, through social media, target audience members of a supplier could get to know him better and could even interact directly with him, with its products or services. It was a way to make them feel part of the 'supplier'. Through specialist weblogs, users find information that defines the quality of products and services, but also information that can change the supply and demand of the market.

Question number 5 was: "Can social media influence the quality of a product/service? How do you see this?"

One of the respondents considers that social media can influence the quality of a product or service through feedback that a vendor may receive, but also through the articles to which he has access. With their help, a supplier may improve, correct or remodel services. Another respondent argues that the dissemination of information, both positive and negative, takes place with much greater speed and with high penetration, the so-called "wave effect"; in addition, feedback is direct and received in time.

As a way of mutual correlation, offering feedback from targeted customers, acting as a reflection, after a reference to some chosen parts, social media can improve the quality of products or services, said one of the participants. Social media can influence, for better or worse, the quality of a product through the given feedback and if it is used as an instrument to capture feedback.

The penultimate question was "How do you see the role of weblogs/forums?". To this, a respondent argues that they have an opinion-forming role and at the same time are very useful for the exchange of opinions and experiences. They reflect the best of the new generation "tastes" and, for those who are interested and willing to listen to, show the new trend. The respondent considers that of all social media, blogs and forums are considered the most endorsed: blogs because users usually have full confidence in that blogger, because that's why users are pursuing him, and specialized forums have the advantage of providing more opinions from people who tested that product or service.

For a guest, blogs and specialized forums represent ideas and thoughts set in silence to be broad "consumed" in a modern era, and for another, the blog represents some kind of personal online journal, and it may have any theme, and specialized forums, by the name's

nature, treat and discuss a topic. Both have an information role, but they don't replace a specialist. Working with a blogger can bring recognition to the brand, services or products, can provide leads to the company website, can increase the level of trust in a brand, can reinforce beliefs and impressions and certainly can strategically position the brand.

Blogs are an important channel for gathering feedback and promoting products. According to the study of Romanian audience blogging in 2015, over 77% of the readers of weblogs have changed or have reinforced their opinion at least once about a product, a service, or a company after reading some of the opinions of the bloggers, and 67% of readers have purchased products and services on the recommendation of the bloggers they read. Unlike blogs, specialized forums content cannot be controlled by the companies, the risk of misinformation or collecting serious dissatisfaction can be very high.

Question number 7 came to conclusion and requested participants to conclude whether "Social Media can improve the quality of a product/service?". Their response was unanimously affirmative. As feedback from suppliers is received directly and in a timely manner, they can take it into account, in order to improve the products or services offered.

### **Conclusions**

Quality, "the totality of the essential traits and sides of which, by virtue, a thing is what it is, rather than one of the other things," a subjective term, it must satisfy all the expectations of the product. The final user determines what it means for him and he is the one who decides which product or service satisfies them better needs or desires. Quality is the final customer satisfaction in relation to the portfolio of products or services of a company. Therefore, it can be said that the word "quality" is equivalent to satisfaction and satisfaction is emotion. Quality involves traits of a product or service for which the customer is willing to pay. As we have said before, the customer is willing to pay for emotions.

Social media represents a new way of communicating, an easy and without costs, a way to promote products or services. It is a phenomenon. It changed lives and changed their mode of communication. In general, social media is a term that describes the multitude of digital platforms that allow interaction, networking and collaboration between those who use them. For users, social media means socializing, freedom of expression, a source of information, decision maker, entertainment, research, place of interaction based on interests, play space, therefore, feelings and emotions. For brands, social media is the most convenient, fast and new space for conversation, connection to relevant audiences, long relationships, community, sustainability, promotion, monitoring and feedback. Social media has an increasingly higher role in promoting the image of a brand, services or products. By being able to share information, message propagation speed is much higher than in other environments. Social media is the present and the future, social media is the link between people, between their emotions and behaviors.

Social media is not only Facebook but much more. Including Facebook, Twitter, blogs, including feeds from sites, LinkedIn, Instagram, Pinterest, Snapchat and the totality of the sites or applications that can interact with others, all online communication channels, that allow the creation of community, facilitate interaction and content transfer.

Social media has a huge impact in the business world and is useful especially in business. It can be used to promote ideas, to start a business, for a brand or for advertising. Social media allows the collection of a large volume of information about users, which can be used to adjust the supply of products (shopping behavior, preferred brands, locations frequented, etc.). Moreover, the speed with which information travels in social media can

be a great boon to business. Information on the quality of products and services can be reached in a very short time to a great community of people.

Social media can influence the quality of a product or service through feedback that a vendor may receive, but also through the articles to which he has access. With their help, a supplier may improve, correct or remodel services. Dissemination of information, both positive and negative, with much greater speed and with high penetration, the so-called "wave effect" and the feedback received is directly and in a timely manner. Social signals (like, share) can influence the generation of traffic, increasing the confidence and awareness of the public towards a product or service. Social media can influence, for the better or for the worse, the quality of a product through the feedback and if it is used as an instrument for feedback. However, it is arguable the proportion in which social media affects the quality because it depends on the opening of the companies to integrating feedback collected on these channels.

Blogs and forums have an opinion-forming role and at the same time are very useful for the exchange of opinions and experiences. They reflect the best of the new generation "tastes" and, for those who are interested and willing to listen to, they show the new trend. Now it is the easiest way to get an opinion: blogs because users usually have full confidence in the blogger, because that's why they are pursuing, and the specialized forums have the advantage of providing more opinions from people who tested the product or service in question. Blogs and specialized forums represent ideas and thoughts located in silence to be broad "consumed" in a modern era. The blog represents a sort of online personal diary, which may have any theme, and the specialized forums, by the nature of their name, treats and discusses a topic. Both have an information role, but they don't replace a specialist.

Working with a blogger can bring recognition to the brand, services or products, it can provide leads to company's website, it can increase the level of trust in a brand, it can reinforce beliefs and impressions and certainly it can strategically position the brand.

On the other hand, social media is something positive, but also negative and can lead to a large dose of information, easy to use for the manipulation of opinion. Social media can very quickly punish the errors made by the user. It is a binder, but sometimes the excessive use and overuse may predispose some user depressive. From the perspective of the business it was notified a reluctance of customers regarding the content appeared in social media lately and the aggressive promotion of brands distance a portion of customers. Moreover, in social media, each consumer has a media group, so that a customer service problem can very easily become prime time news.

To sum up, social media, the present and the future of communication, can highly influence both quality of the product/service and the consumer's behavior, thoughts, personal beliefs and emotions. Using social media, consumers adopt a post-truth behavior in a post-truth world.

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## **A COMPLEX SCIENTIFIC ATTEMPT ON INNOVATION FROM A MULTILEVEL PERSPECTIVE**

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### **Abstract**

Innovation is a concept adopted in so many domains and in such different forms that it became increasingly more difficult to understand and apply. The number of performers involved in the innovation process and the number of forms in which they can manifest their involvement is growing. This article aims to identify the main levels and types of performers involved in the innovation system and so to create ‘a bigger picture’. Innovation becomes “everyone’s job” in the entire society, and the current research provides an instrument to zoom in on a certain level of innovation to simplify its understanding. Innovation is not limited to new technology or new products and is not only a company’s activity, but rather includes several interrelated parts from micro level – as the important role of each individual to a macro level – as the intergovernmental organizations or continental unions. Realizing an integrative study of the research literature and using a multi-level perspective, the paper identifies more clearly the role that different performers have in the innovation system and provides further insight on this phenomenon.

**Keywords:** innovation system, multi-level perspective, business innovation, policy innovation, social innovation

**JEL Classification:** O30, O35, O38, M10

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### **Introduction**

From 1967, Jack Morton, vice-president at Bell Telephone Laboratories, referred to innovation as ‘not a simple action, but a total process with several interrelated parts’. This fact is obviously at the organizational level as highlighted by Michael Schrage, once with the increasing importance that organizational knowledge and employees skills have in the innovation process of a company. Thus, there is more emphasis put on ‘who’ than on ‘how’ (Scharge, 2016), innovation becoming a responsibility for each employee. The entire process is transformed from an activity to an attitude that employees must manifest by creating value and improving their working environment.

If at the company level things are obvious, when it comes to other performers involved in innovation system, things are not so clear anymore. In practice, the innovation attitude has many ways of expression depending on the level at which it is addressed. The research question that this paper aims to answer is: *Which are the main performers in innovation and which are the roles for each of them?*

### **Literature review**

Gupta et al. (2007) distinguish between five different levels of innovation and specific activities performed at each of these levels: individual, group/team, organization, industries and geographic regions. A different multi-level perspective is the one according to which the evaluation of innovation performance is based on the level at which the activity is developed. This approach would have a significant impact on formulation and implementation of innovation policies at different stages and moments of the innovation process, distinguishing between two different classifications: national, regional, sectorial level or macro, meso, micro level (Carayannis et al., 2016). The evaluation of innovation performance is a difficult task considering the limited number of variables that are available and that can be used in studies on this topic. Often, specific activities that are considered innovation can be hardly or not at all quantified. In most studies, as summarized by Carayannis et al. (2016), the level of innovation performance at national or regional level is analysed using variables such as R&D expenditure and patents. The representativeness of these variables is reduced considering the following two aspects: (1) are limited to identify technological innovation that involves R&D activities or product innovation, without having the capacity to reflect other forms of innovation such as business model innovation, organizational innovation, marketing innovation or process innovation; (2) the number of patents shows rather the ability of companies or individuals to register their inventions than the degree and their ability to innovate.

Innovation can occur in many forms, for example as in the case of a new business model which cannot be patented and not necessarily supposes R&D. At the same time the new business model creates value and is a form of innovation, as in the case of marketing or organizational innovation that are in the same situation. Moreover, innovation sometimes may suppose especially process innovation as happens in the petroleum refining industry or especially product innovation in the pharmaceutical industry (Cohen & Klepper, 1996). Not only the industry in which they operate impacts the development of particularly forms of innovation, but also the firm size represents an important determinant, on this subject being conducted several studies. Among the most recent ones, the one made by Lee & Kim (2016) points out that small firms are more flexible and more oriented towards market-driven innovation, while larger firms are more rigid, sometimes with some routine elements installed between departments, being more oriented towards technological innovation.

### **Research Methodology**

It is well known among innovation researchers that product innovation is the most visible form of innovation, generating emotional effects and also influencing customers' perception on the value of innovation (Rindova & Petkova, 2007). Most often product innovation is the result of a company, which manages to create value and to sale a new technology. This is the main reason why the central role in innovation system is assigned to companies (Etzkowitz & Leydesdorff, 2000). Using the iceberg theory, product innovation



in the entire innovation activity of a firm represents only the visible part. Thus, it captures most of the attention and interest both in practice and among researchers.

The current paper aims to bring a complementary perspective to the research carried out so far in the innovation field, contributing through an integration of several concepts and dimensions to a better understanding of the innovation process in its entirety.

Starting from the multi-level research conducted by Gupta et al. (2007) and Carayannis et al. (2016), there were established four levels of interest, considered representative for this research: (1) individual; (2) organization – research institution, company, public agencies, NGO’s; (3) regional/national; (4) international. This hierarchy provides a broad perspective on innovation from a micro to a macro level, aiming to identify the main performers and to highlight their different roles.

The research method used was a comprehensive literature review, which involved selecting a number of relevant articles, necessary to understand the main forms of innovation at each level mentioned above. Articles selection was done using the Web of Science database provided by Thomson Reuters, using at the same time citation metrics criteria and also specific periods of publication. In this way there were ensured both the representativeness of the scientific discoveries and their evolution in time.

Summarizing a number of different perspectives, focusing on each part of the innovation system, this paper brings a more comprehensive and a clearer perspective on ‘the bigger picture’ just to have a proper understanding of innovation and of all its parts.

**An integrative perspective on innovation**

It is important to properly understand innovation, considering all these issues and to use specific actions depending on the level at which it is addressed. If a small company understand by innovation, especially technological innovation, product innovation and R&D activities, it may conclude that it doesn’t have the capacity to innovate. In this case, the problem could be an inappropriate positioning in relation with its level, that leads to a misunderstanding of the innovation activity. The solution for such situations would be a correct positioning and a proper understanding of the role that each performer has in the innovation system.

For instance, at national level, innovation may refer to the improvement of the competitiveness level, in an university or a research institute innovation may suppose discovering a new theory, creating knowledge, inventing a new technology or new materials, while in a company it could be more useful borrowing or adopting new practices or technologies than inventing new ones (Cohen & Levinthal, 1990). Thus, is necessary to develop a multi-level perspective in understanding the innovation phenomenon as summarized below.

**Table no. 1: Understanding innovation at the appropriate level – performers and their roles in the innovation system**

Level/performer	Innovation methods/roles/understanding	Study
<b>Individual</b>	At this level innovation refers to creating or improving specific <b>skills</b> , as:  problem-solving	<i>Individual innovation</i>  Von Hippel, 1994

learning-by-doing, innovating-by-doing,	Nilsson, 1995
learning orientation	Calantone et. al, 2002
divergent thinking, critical thinking	Scott et al., 2004
creativity, design thinking	Gupta et al., 2007
attitude - create value or improve processes	Scharge, 2016

**Organization**

<b>Research institutions</b> (Universities, Research institutes, etc.)	At this level innovation refers especially to <b>knowledge production:</b>	<i>Innovation in science</i>
	Research & Development - practice of scientific discoveries, isolation of gaps in fundamental knowledge	Zvegintzov, 1968
	Extra-industry technological knowledge (complements and therefore leverages the firm's own knowledge)	Cohen & Klepper, 1996
	Develop human capital (researchers, younger generations' competences and mind-set), creating new theories or developing existent ones, newly created disciplines, incorporating knowledge in patents, inventions	Etzkowitz & Leydesdorff, 2000
	Develop critical technology science (materials science, nanotechnology, etc.)	Etzkowitz & Leydesdorff, 2000
	Universities will become hubs of knowledge and innovation	Schaeffer, V. & Matt, M., 2016.

<b>Companies</b>	At this level innovation refers particularly to <b>knowledge commercialization:</b>	<i>Innovation in business</i>
	integrating knowledge, knowledge application	Grant, 1996
	increasing the absorptive capacity	Cohen & Klepper, 1996
	transforming technological innovations into business opportunities, using technological change to create new processes, new products, new markets, new ways of organizing	Shane, 2000
	value creation, applying new business models, creating a competitive advantage, improving dynamic capabilities	Amit & Zott, 2001
	open innovation - use external source of knowledge and R&D, sale of know-how (patenting, licensing, etc.), collaborate in innovation	Chesbrough, 2003; Ghisetti et al., 2015
<i>particularities for Start-ups, SME's</i>	focusing on market-driven innovation, with a simple structure and an increased flexibility they can more easily adapt to their consumers' needs	Lee & Kim, 2016

<b>Big companies</b>	better able to develop their own R&D - background knowledge that would permit them to exploit rapidly useful scientific and technological knowledge, deeper understanding useful for exploiting new technical developments	Cohen & Klepper, 1996
	better able to develop technological innovation	Lee & Kim, 2016
<b>Public agencies - Patent Offices</b>	At this level innovation refers especially to <b>knowledge protection:</b> Protecting intellectual property rights – patents, trademarks, etc.	Picard de la Potterie, 2013
<b>NGOs</b>	At this level innovation refers especially to <b>fulfilling social needs:</b>	<i>Social innovation</i>
	promoting partnerships and participation, advocating for certain principles in society	Fyvie, C. & Ager, A. 1999
	social entrepreneurship - meeting emerging social demands, helping people in need and developing non-profit activities, helping people to adapt trends	Defourny & Nyssens, 2013
	civic entrepreneurs working in collaborative arenas to improve the resilience of specific communities, assuring equity in society	Defourny & Nyssens, 2013
<b>National level</b>	At this level innovation refers especially to improving the <b>legal framework</b> and <b>financing innovation:</b>	<i>Public innovation</i>
	National System of Innovation (frame for government interventions), Triple Helix (university-industry-government relations)	Etzkowitz & Leydesdorff, 2000
	financing innovation - support of national governments for the development of a new technological trajectory, support with funds academic research, stimulating the procurement of advanced technologies	Etzkowitz & Leydesdorff, 2000
	industrial competitiveness and economic growth, trade performance and specialization patterns, increase productivity	Castellacci, F. 2008;
	'policy mix' for innovation, appropriate government policy intervention for encouraging innovation	Castellacci, F. 2008; Flanagan et al., 2011
<b>Regional level</b>	involvement in clusters, linking industries and building collaboration networks and strategic alliance	Porter, 1998
	decision-making process for the various domain	Țarțavulea (Dieaconescu et al., 2016)

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	developing a systemic innovation policy mix	Iosif & Tăchiciu, 2016
<b>International level</b>	At this level innovation is refereeing especially to assuring the <b>international cooperation and responsible innovation:</b>	<i>Responsible innovation</i>
<b>Intergovernmental organization</b> (e.g. ONU, OCDE, NATO)	economic growth, the development of a new technological trajectory invokes the support of international levels	Etzkowitz & Leydesdorff, 2000
and	promoting sustainable development - responsible innovation, democratic governance of emerging science, ensuring political/military stability	Owen et al., 2012
<b>Continental unions / supranational unions</b> (e.g. EU, African Union)	transformative change  cross-border knowledge transfer and innovation through partnerships, cooperation and international ties, globalization, intellectual property rights protection	Weber & Rohracher, 2012  Jandhyala & Phene, 2015

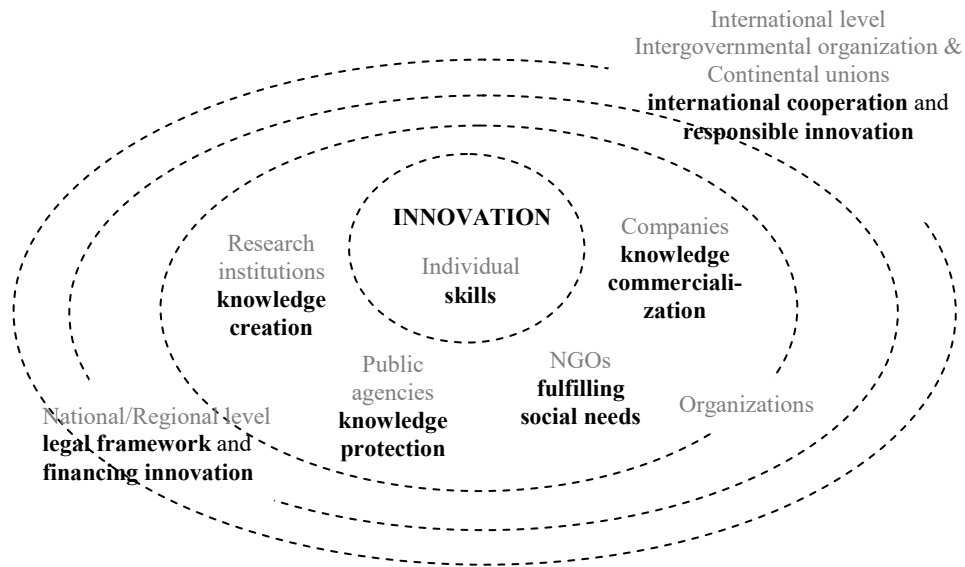
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Progress requires a good cooperation between all these performers and appropriate understanding of their activities. Furthermore, each entity should assume its role and make all the efforts to achieve the best performance through specific methods for its level as a contribution to the functioning of the innovation system.

### Conclusions

Innovation is not anymore a simple action, there are more and more performers involved in this process and in many different ways. Recently is put more emphasis on attracting as many people as possible in the innovation process, given that innovation is directly related to knowledge.

Innovation is not only a result of companies and is not just knowledge commercialization, R&D, new technologies and patents. Everyone can innovate in many ways and at different levels: (1) at the individual level through learning orientation, creativity and attitude; (2) research institutions by creating new knowledge, developing human capital; (3) firms by developing new business models, improving process and involving in collaborative networks; (4) NGOs through social entrepreneurship and civic initiatives; (5) at regional or national level by adopting appropriate governmental policies, financing innovation and increasing competitiveness; (6) intergovernmental organizations and continental unions by responsible innovation, cross-border knowledge transfer and economic growth.



**Figure no. 1: Roles of innovation performers**

Improving performance at each of these levels is the only way in which innovation may lead to further sustainable development. This paper contributes to clearly define the role of each innovation performer, making it easier to see innovation as <everyone's job> and not only in a company, but in the entire society. Another role of this paper was to 'increase the level of understanding of the innovation complexity, offering the possibility to zoom in and out', by focusing on a specific level of innovation and by understanding different innovation forms.

This study can be further developed and may be useful in providing a new perspective on the dimensions of innovation and how to assess its performance, taking into account different results recorded at each of these levels.

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## **NEW DISTRIBUTION STRATEGIES: CHALLENGES AND OPPORTUNITIES**

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### **Abstract**

Retailers operate in a tough and rapidly changing environment that offers both threats and opportunities. Globalization, mergers and acquisitions and technological development have led to drastic changes in the retail sales. Also, the explosive growth of the Internet is one of the main catalysts in this process. The purpose of this paper is to explore the options for distribution strategy implementation, focusing on the new strategies that enable companies to gain competitive advantage and satisfy their customers' needs at the highest standard. Omni-channel strategy is a relatively new approach toward distribution that connects companies and customers at several levels, from a direct type of interaction (physical stores) to virtual ones (e-commerce, social media etc.). The conclusions refer to the challenges and opportunities that distribution strategies must address today and synthesize the new trends in this area.

**Keywords:** distribution strategies, omni-channel, e-commerce, retail, multi-channel

**JEL Classification:** D30, F23, L21

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### **Introduction**

The retail industry is in a continuous process of evolution and transformation. Globalization, mergers and acquisitions and technological development have led to drastic changes in the retail sales. Also, the explosive growth of the Internet is one of the main catalysts in this process.

Internet effects were mostly felt in the retail sector dealing mainly with intangible assets or information products. But it is not limited to those sectors and traders of physical products realized that today's consumer - sophisticated, critical and well informed - is different from the consumer that they already knew. Thus, the phenomenon known as "social media" provided consumers with power of information and greater control over the market, which implies many dilemmas, important challenges and opportunities for traders.

In addition, the market indicates certain trends in retailing and wholesaling sector. Retailers operate in a tough and rapidly changing environment that offers both threats and opportunities. To be successful, retailers need to carefully choose target segments and to position themselves strongly.



Trying to cope with economic difficulties, retailers must be careful that their actions do not affect their short-term image and their position in the long term. A retail strategist claimed drastic price discounts are a 'sign of panic' and that "Anyone can sell the product through lower prices, but cannot maintain loyalty (Heinemann and Schwarzl, 2010).

New retail formats continue to emerge to address new situations and needs of consumers, but the life cycle of such new forms is becoming shorter. Department stores has had about 100 years to reach maturity stage of the life cycle; more recent forms of retail, such as warehouse stores have reached maturity in about 10 years. In order to be successful, companies need to constantly adapt their retail strategy.

Many innovations are explained by the concept wheel-of-retailing, showing that new types of retailers usually start with a small margin, low-cost operations with low status, but later evolves through a strategy of high price and high value services. In addition, we can observe an increase in the non-store retailing and technology development in this field. In the past two decades we notice the expansion of the largest global retailers. Thus, traders with a strong brand are moving to other countries. Many are expanding internationally to escape domestic markets which are mature and saturated.

Like retailers, wholesalers must have an outstanding position in the market and decide on the mix of the 4P's of marketing. In the long term, their only reason for existence comes from the added value achieved by increasing the efficiency and effectiveness of the entire marketing channel.

## 1. Literature review

### 1.1 Distribution strategies

The distribution strategy - part of the marketing strategy - is based on the location of the sales points, marketed products, prices, customer service and communication. These correlate with activities related to sales, logistics, market research, financing and impact of new technologies.

Distribution strategy objectives can be derived from strategic marketing objectives; the latter can be deduced from the overall objectives of the development strategy of the company (See Figure no. 1).



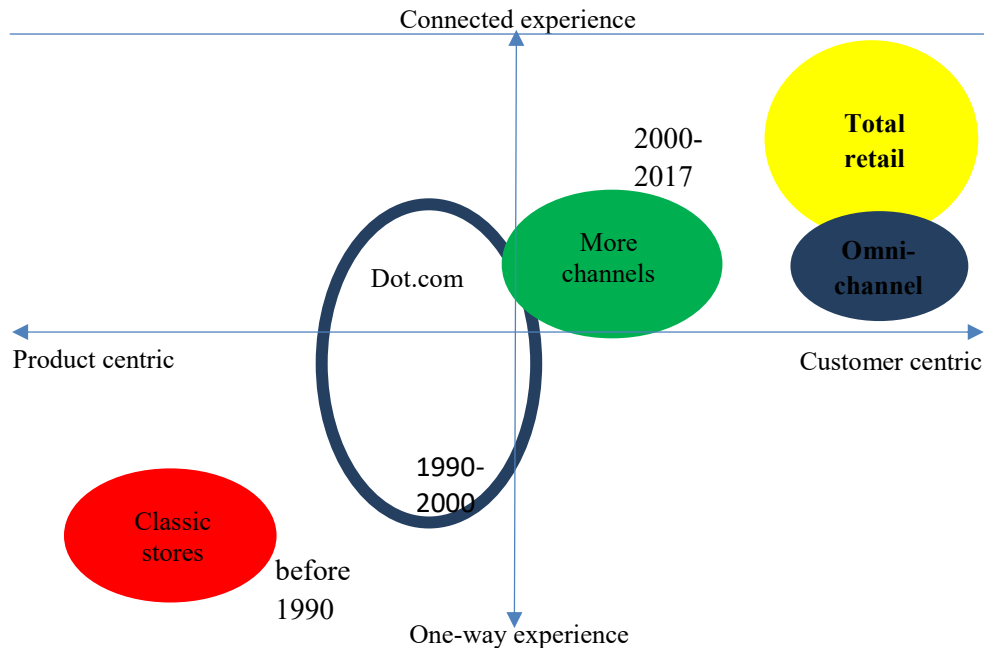
Figure no. 1: Objectives of distribution strategy

A company usually has the objective of winning as much as possible of the market share and achieving long-term stability. Distribution strategy objectives must be integrated into the overall strategic objectives of the firm.

To define the strategy of distribution companies, three elements have an important role:

- The diversity of the marketing format;
- The diversity of product range;
- Territorial coverage.

If we consider the diversity of the marketing format and of product range, distribution companies may be classified as: general and mono-format (quadrant 1); general and multi-format (quadrant 2); specialized and mono-format (quadrant 3); specialized and multi-format (quadrant 4), as we can see in Figure 2.



**Figure no. 2: Evolution of distribution strategies**

*Source: PwC, 2014*

The world is in a process of continuous innovation, transformation and adaptation. Precisely for this reason, a global electronic market is an attractive opportunity. The decision to expand globally is made for several reasons, both reactive such as existing international competition and proactive, such as vendors seeking economies of scale, pursuing new international markets, looking for access to sufficient resources or taking advantage of new resources and incentives from local governments.

However, the global expansion requires a complex strategic decision-making process. Geographical distance is an important problem when doing business globally, but there are

other essential elements that must be considered, namely: cultural differences, political, legal, administrative and economic issues.

After the 90's, new forms of distribution emerged, such as distance sales, teleshopping sales and electronic-commerce, that led to the entering into the dot.com era (Belu and Marinoiu, 2014).

### 1.2. E-commerce: challenges and opportunities

If we consider the three defining components of a transaction - the product / service, the process and the intermediary - we can distinguish: traditional trade - where all components / dimensions are material / physical; pure e-commerce - all dimensions are digital; e-commerce part - a mix of material components and digital / information ones. Accordingly, we can talk about: a) organizations / companies operating core off-line, selling physical products through physical agents / materials, those organizations belonging to the traditional economy - *brick-and-mortar (old economy) organizations*; b) virtual organizations, belonging to the new economy, operating only *online/virtual (pure-play) organizations*; c) mixed organizations, carrying on e-commerce as an additional form of distribution apart from classic physical stores - *click-and-mortar (click-and-brick) organizations*.

E-commerce or electronic commerce is the buying and selling of goods and services or transmitting funds or data through an electronic network, primarily through the Internet. A classification of e-commerce can be done by type of transaction and the members involved. The main types of transactions are:

- Business-to-business (B2B) - transactions between organizations; B2B represents over 80% of e-commerce.
- Business-to-Consumer (B2C) - Retail transactions of products or services from businesses to individual buyers.
- Business-to-business-to-consumer (B2B2C) - a business (B1) sells a product of another business (B2). The latter then sell the product to individual buyers who are customers.
- Consumer-to-Business (C2B) - people use the Internet to sell products or services for individuals and organizations.
- Intrabusiness EC - refers to transactions between different organizational units and individuals.
- Business to Employees (B2E) - refers to the provision of information or products from organizations to their employees.
- Consumer-to-consumer (C2C) - individual consumers that sell and/or buy from other consumers.
- E-Government - a government agency buys or provides goods, services or information from or to business (G2B); from or to individual citizens (G2C) and also may have to deal with other governments (G2G).

E-commerce is growing year by year with more and more people opting for the convenience of online shopping [...] E-commerce is booming and retailers face many challenges and opportunities. (Deloitte, 2015).

The development of e-business involves at least six types of activities: the company's web presence; relationships with partners in the supply chain; creation of online catalogs; secure payments; delivery of products; concluding transactions in order to achieve consumer loyalty (Belu and Marinoiu, 2014).

A subset of electronic commerce is the business of e-retail defined as the sale of goods and services on the Internet or other electronic channels, for household or personal (Dennis and Harris, 2002). This includes all e-commerce activities that result in transactions with final consumers (business-to-consumer) rather than business customers (business-to-business). An in-depth analysis of e-commerce reveals the opportunities and challenges that companies and consumer are facing when using the virtual environment as a “place” where the offers of products/services of companies met the needs, desires and aspirations of consumers. In this type of environment, we find specific challenges, both technological and non-technological, which can become barriers if the company is not flexible. Managers must constantly adapt to the new technological developments as well as to the social trends revealed by the virtual environment.

**Table no. 1: Challenges and opportunities of e-commerce for companies and customers**

Challenges	Companies		Consumers
	Technological	Non-technological	
	<ul style="list-style-type: none"> <li><input type="checkbox"/>The technical complexity</li> <li><input type="checkbox"/>The need for universal standards for quality, safety and reliability</li> <li><input type="checkbox"/>Telecommunications bandwidth is insufficient, especially for m-commerce, video and graphics</li> <li><input type="checkbox"/>It is difficult to integrate the Internet and e-commerce software with some applications and databases existing</li> <li><input type="checkbox"/>Large-scale B2C require automated warehouses special equipped for order picking</li> <li><input type="checkbox"/>Competition with other providers</li> <li>Dependence on Google</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/>Few physical contact with products</li> <li><input type="checkbox"/>Possible difficulties with complaints</li> <li><input type="checkbox"/>safety risk in payment processing</li> <li><input type="checkbox"/>The existence of minimum order and possible additional expenses</li> <li><input type="checkbox"/>mentality of "freeloader"</li> <li><input type="checkbox"/>reluctance to changes</li> <li><input type="checkbox"/>Government regulations at national and international can be an obstacle</li> <li><input type="checkbox"/>There are not enough customers</li> <li><input type="checkbox"/>Lack of collaboration along the supply chain</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/>Internet access is expensive in some cases</li> <li><input type="checkbox"/>Products may look different online and in reality</li> <li><input type="checkbox"/>Potential problems of product originality</li> <li><input type="checkbox"/>The place of origin of the product may not be mentioned</li> <li><input type="checkbox"/>Risks regarding the safety of personal data and of credit card information</li> </ul>
Opportunities	<ul style="list-style-type: none"> <li><input type="checkbox"/> Global presence</li> <li><input type="checkbox"/> Reduction of costs</li> </ul>		<ul style="list-style-type: none"> <li><input type="checkbox"/> Anywhere / anytime availability</li> </ul>

	<input type="checkbox"/> facilitates problem solving <input type="checkbox"/> improvements in supply chain <input type="checkbox"/> customization and personalization <input type="checkbox"/> non-stop business <input type="checkbox"/> Reduced costs for communication <input type="checkbox"/> Efficiency of procurement <input type="checkbox"/> Minimizing inventory process <input type="checkbox"/> Lower cost of distributing digital goods <input type="checkbox"/> Provides competitive advantage	<input type="checkbox"/> independence from opening hours <input type="checkbox"/> larger selection of offers <input type="checkbox"/> Market transparency and comparability of products and offers <input type="checkbox"/> individual offers <input type="checkbox"/> Social Interaction <input type="checkbox"/> No sales tax
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Source: Turban, E.; King, D.; Lee J.K.; Liang T-P.; Turban, D.C. 2015, p. 17

Two other types of virtual commerce have emerged with the technological development:

- M-commerce (mobile commerce) means the use of mobile devices for online transactions; more precisely, it is about buying and selling goods and services using wireless technology and portable devices such as mobile phones (smartphones) and tablets (generally what is called personal digital assistant – PDAs and any portable minicomputer). The areas most influenced by m-commerce are: financial services (mobile banking, brokerage services); telecommunications; distribution.
- S-commerce (social commerce) is electronic commerce that is done through social networks and online social relations; It is called Facebook-commerce, although it covers a wider range of communication on different social networks. Social networks have become the new e-commerce platform that rivals the original type of dedicated websites, offering research / prospection services, promotion / advertising and payment for sellers and buyers.

The results of a research conducted by Ebeltoft, Global (2014) show a new trend in retail: transition from cross channel to omni-channel strategy of distribution.

## 2. Omni-channel strategy

Omni-channel is the mix of all physical and digital channels used to create an innovative and unified customer experience (Sealey, 2014). Implementing an omni-channel strategy means reaching for the customer through all the possible “places” he can shop: in classic stores placed in central areas, malls or hypermarkets, in media with teleshopping experience and in the online environment with specific virtual shops but also with social media pages and intelligent advertisement (see Figure 3).

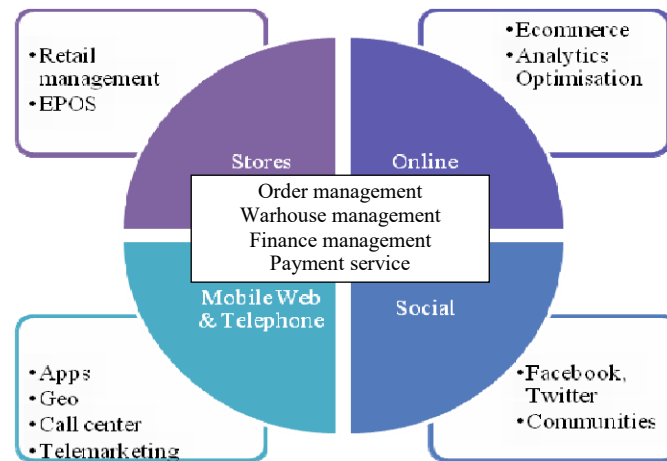
Omni-channel becomes more about providing an experience — the omni-channel customer experience — transcending any one medium and simply providing shoppers what they want, when they want (BigCommerce, 2017). The center of the omni-channel is the customer and all the channels are designed specially to reach him wherever he spends time.



**Figure no. 3: Omnichannel Retailing – customer experience**

This type of strategy can be implemented by both big and small companies, but it does require a financial investment especially for advertising in media or in the online environment and for purchasing/developing an integrated system of management that enables managers to have constant access to real-time information about sales, inventory and delivery/payment processes, as well as data analysis for continuous optimization (see Figure 4).

Omni-channel marketing is about delivering a more interactive, personalized brand experience that goes beyond tipic behavior and where the consumer is reached through all possible touch points or channels. It is important for both e-tailers and traditional retailers to decide on a marketing strategy specific for their business and products to make sure the marketing goes through the right channels for a specific customer group. To succeed in e-commerce, it is important to be top-of mind among customers. Marketing should therefore be considered as an investment. However, it is crucial to spend the marketing budget on channels that positively impact brand recognition and sales both in the short term and long-term. (Deloitte, 2015)



**Figure no. 4: Omnichannel strategy mechanisms**

There is a complex set of mechanisms that must be implemented by a company that applies the omni-channel strategy, and they should be sustained by a technological and informational structure which must offer/store precise data that can be analyzed in order to further develop the system.

### **Conclusions**

Distribution and intermediaries become over time elements increasingly important. "Gaps" which must be filled between companies and between these and consumers, have become numerous and significant. When a business is growing internationally, the number of transactions increases and there is a need for an efficient distribution network.

It is also worth stressing the importance of distribution as a source of revenue and profit. Lately, the focus was placed on factors such as service, logistics adaptation and less on the product itself. The opportunity of a vendor to differentiate from competitors is found among these elements since production is increasingly standardized.

In addition, with the rapid development of the Internet, e-commerce became a key pillar for companies because it brings them closer to consumers, who can shop faster and easier. E-commerce created a new distribution channel with bidirectional communication between companies and customers, offering businesses a competitive advantage. Moreover, electronic commerce is more than the purchase and sale of goods and services; it facilitates other activities such as exchanges and negotiations between companies.

In order to be successful in the digitalization era, retailers must focus on modern distribution forms that include classic and online stores. Omni-channel strategy is the best choice for companies that want to expand their business and reach as many customers as possible.

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## **EGARCH VERSUS PARCH APPROACH IN MODELING DEVELOPED AND UNDERDEVELOPED STOCK MARKETS**

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### **Abstract**

Based on recent results regarding the changes in volatility modeled by the instrumentality of different specifications of Generalized Autoregressive Conditionally Heteroscedastic (GARCH) models, the aim of this paper is to make an analysis of volatility through comparison. Thus, we take into account two asymmetric models from the GARCH family (the Exponential Generalized Autoregressive Conditionally Heteroscedastic Model - EGARCH and the Power Autoregressive Conditionally Heteroscedastic Model - PARCH) under the assumption of the two most used distributions of the innovations (Gaussian and Student's  $t$ ) in two stock markets at opposite poles: London Stock Exchange represented by FTSE Index (developed stock market) and Bulgarian Stock Exchange represented by SOFIX Index (underdeveloped stock market). The interesting point is that the PARCH(1,1) with asymmetric order 1 and Student's  $t$  distribution performs better than all the EGARCH models in estimating the conditional variance in case of the FTSE 100 Index, thus the developed market is characterized by the leverage effect, but in case of the Bulgarian Stock Exchange neither EGARCH nor PARCH are good models for estimating the volatility of the market, a fact that leads to many questions, including why the leverage effect is not present in this market.

**Keywords:** Conditional Variance, Leverage Effect, EGARCH, PARCH, International financial markets, FTSE 100 Index, SOFIX Index

**JEL Classification:** C22, C52, C55, C58

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### **Introduction**

In their recent research paper Petrică, et al. (2016) examine the changes in volatility in case of the Tokyo Stock Exchange through the NIKKEI 225 and TOPIX Indices by taking into account three asymmetric GARCH models: EGARCH, TARCH and PARCH, estimated using the maximum likelihood method under the assumption of five distributions of the

error terms<sup>\*</sup>. They find that EGARCH model performs better than TARARCH and PARARCH models. Petrică and Stancu (2017a) also study the volatility of the Romanian stock market where they employ both symmetric and asymmetric GARCH models (ARCH, GARCH, EGARCH and GJR-GARCH models) in four of Bucharest Stock Exchange indices which reflect only the evolution of market prices: Bucharest Exchange Trading Index, Bucharest Exchange Trading Extended Index, Bucharest Exchange Trading – Investment Funds and Bucharest Exchange Trading Energy & Related. The empirical results reveal in three cases out of four that volatility turned out to react asymmetrically to good and bad news. Thereby, one more time EGARCH model turned out as being both the best and the predominant model in estimating the conditional variance of financial time series. Since the conditional variance is time varying, Petrică and Stancu (2017b) devoted time and attention in acquiring some conclusions in case of the exchange rate. Thus, they went from indices to analyze the changes in volatility in case of the EUR/RON exchange rate using different specifications of GARCH models (ARCH, GARCH, EGARCH, TARARCH and PARARCH). The EGARCH and PARARCH models perform well, but the best model for estimating daily returns of the EUR/RON exchange rate was again EGARCH (EGARCH(2,1) with asymmetric order 2 under the assumption of Student's t distributed innovation terms). As can be seen, our recent papers have focused on the study of the changes in volatility in only one market (financial or monetary) and we found that EGARCH and PARARCH models are quite close. This paper comes now to show what happens if we are using those two asymmetric GARCH models but in different stock markets, a developed one and an underdeveloped stock market. Thus, the aim is to compare the EGARCH and PARARCH models in markets at opposite poles: London Stock Exchange represented by FTSE 100 Index (developed stock market) and Bulgarian Stock Exchange represented by SOFIX Index (underdeveloped stock market).

**Methodology**

The mathematical representation of an asymmetric GARCH model implies two equations: conditional mean and conditional variance, that have to be estimated simultaneous. According to Petrică, Stancu and Tindeche (2016, p.11) the conditional mean has the following representation:

$$y_t = \alpha_1 y_{t-1} + \alpha_2 y_{t-2} + \dots + \alpha_r y_{t-r} + \varepsilon_t + \beta_1 \varepsilon_{t-1} + \beta_2 \varepsilon_{t-2} + \dots + \beta_s \varepsilon_{t-s} \tag{1}$$

where:

- $y_t, y_{t-1}, y_{t-2}, \dots, y_{t-r}$  - the realisation of the dependent variable  $Y$  at time  $t, t-1, \dots, t-r$ ;
- $\alpha_1, \alpha_2, \dots, \alpha_r, \beta_1, \beta_2, \dots, \beta_s$  - the unknown parameters of the model,  $\alpha_1 \neq 0, \beta_s \neq 0$ ;
- $\varepsilon_t$  - the value of the disturbance term at time  $t$ , i.i.d.  $\varepsilon_t \sim N(0, \sigma^2)$ ;
- $r$  - the number of lagged values of  $Y$  and represents the order of the autoregressive process;
- $\varepsilon_{t-1}, \varepsilon_{t-2}, \dots, \varepsilon_{t-s}$  - the realisation of the lagged disturbances;
- $s$  - the number of lagged disturbances and represents the order of the moving average process.

<sup>\*</sup> Normal distribution, Student's t distribution, Generalized Error distribution (GED), Student's t distribution with fixed degrees of freedom, and GED distribution with fixed parameter.

After determining the adequate order of the parameters  $p$  and  $q$ , next step consists in estimating the parameters  $\alpha_1, \alpha_2, \dots, \alpha_p, \beta_1, \beta_2, \dots, \beta_q$  of equation (1) and then calculate and estimate EGARCH and PARCH models on  $\hat{\epsilon}_t$ .

**The Exponential Generalized Autoregressive Conditionally Heteroscedastic Model (EGARCH)**

Rachev, et al. (2007, p.301) state "the asymmetric behavior of asset returns is modeled as an asymmetric, nonlinear specifications of the conditional variance process and a symmetric distribution (such as Gaussian or the Student's t-distribution) for the conditional error" and present the EGARCH(p,q) model, introduced by Nelson (1991), as follows:

$$\log(h_t) = \alpha_0 + \sum_{i=1}^p \alpha_i g(\eta_{t-i}) + \sum_{j=1}^q \beta_j \log(h_{t-j}) \tag{2}$$

where:

$h_t$  – the conditional variance of the disturbances at time  $t$ ;

$\alpha_0$  – the constant term;

$\epsilon_t = \sqrt{h_t} \eta_t$  and  $g(\eta_t) = \theta \eta_t + \gamma [| \eta_t | - E | \eta_t |]$  – the weighted disturbances that model asymmetric effects between positive and negative asset returns with  $\theta, \gamma$  – constants.

**The Power Autoregressive Conditionally Heteroscedastic Model (PARCH)**

The PARCH model, introduced by Ding, et al. (1993), may be specified as follows:

$$\sigma_t^2 = \omega + \sum_{i=1}^q \alpha_i (|\sigma_{t-i}| - \gamma_i \cdot \sigma_{t-i})^2 + \sum_{j=1}^p \beta_j \sigma_{t-j}^2 \tag{3}$$

where:

$\omega$  – the constant term, with  $\omega > 0$ ;

$\alpha_i, \beta_j$  – the standard ARCH and GARCH coefficients with  $\alpha_i \geq 0$  and at least one  $\alpha_i > 0$ ,  $i = \overline{1, q}$ , and  $\beta_j \geq 0, j = \overline{1, p}$ ;

$\gamma_i$  – the asymmetry coefficients ( $|\gamma_i| < 1$ ) and  $\delta$  – the coefficient for the power term ( $\delta > 0$ ).

**Empirical Results and Discussion**

In this section we employ EGARCH and PARCH models to the percentage daily returns of the FTSE 100 and SOFIX Indices ( $Return_t = \log \left( \frac{closing\_price_t}{closing\_price_{t-1}} \right) * 100$ ), in order to model the conditional volatility in London Stock Exchange and Bulgarian Stock Exchange. The data is acquired directly from the Bloomberg database and concerns the period January 04, 2010 to September 27, 2016. The FTSE UK Index series highlights the performance of U.K. companies and affords investors "a comprehensive and complementary set of indices that measure the performance of all capital and industry segments of the UK equity market"<sup>†</sup>. (Table no. 1) provides some basic statistics of the FTSE 100 Index series, while (table no. 2) shows the non-stationarity of the series using Augmented Dickey–Fuller (ADF), Phillips-Perron (PP) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS) unit root tests:

<sup>†</sup> <http://www.londonstockexchange.com/statistics/ftse/ftse.htm>

**Table no. 1: Basic statistics of daily FTSE 100 Index (January 04, 2010 to September 27, 2016)**

Basic statistics			
Mean	7542.548	Skewness	0.329820
Std. Dev.	964.2274	Kurtosis	2.472135

Source: Authors' computations

**Table no. 2: Unit root tests (with constant term and time trend) on daily FTSE 100 Index (ADF, PP and KPSS)**

Unit Root Test	Calculated value	Critical value		
		1%	5%	10%
ADF	-2.814556 (0.1921)	-3.963457	-3.412458	-3.128178
PP	-2.603504 (0.2788)	-3.963444	-3.412451	-3.128174
KPSS	0.379370	0.216000	0.146000	0.119000

Source: Authors' computations

"Volatility, a symptom of market disruption, is associated with unpredictability, uncertainty and is usually realized through time varying conditional variance."<sup>‡</sup> (Table no. 3) shows that in case of percentage returns we get stationarity:

**Table no. 3: ADF unit root test (with constant term and time trend) on FTSE 100 daily returns**

Unit Root Test	Calculated value	Critical value		
		1%	5%	10%
ADF	-22.95322 (0.0000)	-3.963457	-3.412458	-3.128178

Source: Authors' computations

Forwards, we are using the Box-Jenkins methodology in order to come up with the adequate ARMA model for the conditional mean. After considering a number of specifications, we selected ARMA (1,4) model based on minimum Akaike Information Criterion and Hannan-Quinn Criterion:

$$\hat{R}_{t|t}^{FTSE100} = 0.595756 \hat{R}_{t-1}^{FTSE100} + \sigma_t - 0.524742 \sigma_{t-1} - 0.108079 \sigma_{t-2} + 0.061371 \sigma_t - 0.126340 \sigma_{t-4} \quad (4)$$

and testing the residuals from equation (4) for ARCH effects we get that we can run the asymmetric GARCH models (table no. 4):

**Table no. 4: EViews 9 output of the ARCH LM Test**

Obs*R-squared	138.3361	Prob. Chi-Square(1)	0.0000
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Source: Authors' computations

Therefore, applying different specifications of EGARCH and PARCH models, (table no. 5) reports EGARCH(1,2) model under Student's t distribution as being the best model, while (table no. 6) reports the PARCH(1,1) model under Student's t distribution.

<sup>‡</sup> Sabiruzzaman, et al. (2010, p.142).

**Table no. 5: Estimation results of EGARCH model for the FTSE 100 Index**

Variable	EGARCH Asymmetric order 1							
	EGARCH(1,1)		EGARCH(1,2)		EGARCH(2,1)		EGARCH(2,2)	
	Normal	Student's t	Normal	Student's t	Normal	Student's t	Normal	Student's t
Variance Equation								
C(7)	-0.14213 (0.0000)	-0.14968 (0.0000)	-0.19786 (0.0000)	-0.19013 (0.0000)	-0.12954 (0.0000)	-0.13738 (0.0000)	0.18984 (0.0000)	0.18018 (0.0001)
C(8)	0.18849 (0.0000)	0.19381 (0.0000)	0.26132 (0.0000)	0.24598 (0.0000)	0.25942 (0.0000)	0.25842 (0.0001)	0.27243 (0.0000)	0.26400 (0.0000)
C(9)	0.11847 (0.0000)	-0.18009 (0.0000)	-0.15822 (0.0000)	-0.21894 (0.0000)	0.08781* (0.1416)	0.08089* (0.2646)	0.0217* (0.7699)	0.0310* (0.7194)
C(10)	0.95007 (0.0000)	0.93351 (0.0000)	0.46603 (0.0002)	0.58302 (0.0003)	-0.11505 (0.0000)	-0.17493 (0.0000)	0.15584 (0.0000)	-0.2149 (0.0000)
C(11)			0.47053 (0.0002)	0.34156 (0.0274)	0.95528 (0.0000)	0.94085 (0.0000)	0.49871 (0.0073)	0.61602 (0.0026)
C(12)							0.44015 (0.0138)	0.31191* (0.1099)
AIC	2.84447	2.79809	2.84129	2.79679	2.84459	2.79846	2.84241	2.79786

\* The coefficient is not significant at any confidence level (1%, 5% and 10%).

Source: Authors' computations

**Table no. 6: Estimation results of PARCH model for the FTSE 100 Index**

Variable	PARCH Asymmetric order 1							
	PARCH(1,1)		PARCH(1,2)		PARCH(2,1)		PARCH(2,2)	
	Normal	Student's t	Normal	Student's t	Normal	Student's t	Normal	Student's t
Variance Equation								
C(7)	0.05248 (0.0000)	0.07352 (0.0000)	0.07031 (0.0000)	0.08673 (0.0000)	0.04803 (0.0000)	0.07135 (0.0000)	0.08273 (0.0000)	0.08344 (0.0000)
C(8)	0.09643 (0.0000)	0.10705 (0.0000)	0.13876 (0.0000)	0.13027 (0.0000)	0.12927 (0.0001)	0.11248 (0.0000)	0.08786 (0.0000)	0.13793 (0.0132)
C(9)	0.63205 (0.0000)	0.99999 (0.0000)	0.64937 (0.0000)	0.99989 (0.0000)	0.46959 (0.0011)	0.99990 (0.0000)	0.99982 (0.0000)	0.94221 (0.0409)
C(10)	0.86544 (0.0000)	0.83921 (0.0000)	0.31589 (0.0145)	0.39366 (0.0126)	0.03676* (0.3327)	0.02659* (0.2210)	0.04373 (0.0150)	-0.02012 (0.6094)
C(11)	1.37819 (0.0000)	1.14197 (0.0000)	0.50096 (0.0000)	0.40117 (0.0051)	0.87909 (0.0000)	0.85670 (0.0000)	0.18071 (0.0430)	0.42603 (0.0111)
C(12)			1.25454 (0.0000)	1.26047 (0.0000)	1.23795 (0.0000)	1.15637 (0.0000)	0.59524 (0.0000)	0.38331 (0.0097)
C(13)							1.56909 (0.0000)	1.26685 (0.0000)
AIC	2.84215	2.79206	2.83827	2.79293	2.84306	2.79217	2.83919	2.79381

\* The coefficient is not significant at any confidence level (1%, 5% and 10%).

Source: Authors' computations

Hence, (table no. 5) and (table no. 6) reveal together the presence of the leverage effect through EGARCH and PARCH models. Moreover, the Student's t distribution of the innovations performs better than the Gaussian distribution. Taking these into account and

based on the Akaike Information Criterion we find that PARCH is the most adequate model.

Analogously to the FTSE 100 Index, the first index developed by the Bulgarian Stock Exchange is given by the SOFIX Index and represents "a correlation of the sum of the market capitalization of the companies within the index portfolio on the current day and the sum of the market capitalization of the same on the previous day"<sup>§</sup>. Next, (table no. 7) provides that the hypothesis of a unit root cannot be rejected, while (table no. 8) indicates stationarity in case of the transformed series:

**Table no. 7: Unit root tests (with constant term and time trend) on daily SOFIX Index**

Unit Root Test	Calculated value	Critical value		
		1%	5%	10%
ADF	-1.473619 (0.8384)	-3.963571	-3.412514	-3.128211
PP	-1.515612 (0.8242)	-3.963568	-3.412512	-3.128210
KPSS	0.490336	0.216000	0.146000	0.119000

*Source: Authors' computations*

**Table no. 8: ADF unit root test (with constant term and time trend) on daily returns SOFIX Index**

Unit Root Test	Calculated value	Critical value		
		1%	5%	10%
ADF	-38.01316 (0.0000)	-3.963571	-3.412514	-3.128211

*Source: Authors' computations*

Forwards, using the Box-Jenkins methodology we find that the adequate model for the conditional mean is AR(1) model having the following equation:

$$R_t^{SOFIX} = 0.068762R_{t-1}^{SOFIX} + \epsilon_t \quad (5)$$

and according to ARCH LM Test (table no. 9) the conditional variance is time varying:

**Table no. 9: EViews 9 output of the ARCH LM Test**

Obs*R-squared	94.92900	Prob. Chi-Square(1)	0.0000
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*Source: Authors' computations*

Whatever the error term distribution, Gaussian or Student's t, we observe that the asymmetry coefficient ( $\gamma$ ) is not significant in any EGARCH or PARCH models (table no. 10) and (table no. 11). Thereby, both EGARCH and PARCH are not adequate models for estimating the conditional variance of SOFIX Index.

<sup>§</sup> <https://en.wikipedia.org/wiki/SOFIX>

**Table no. 10: Estimation results of EGARCH model for the SOFIX Index**

Variable	EGARCH Asymmetric order 1							
	EGARCH(1,1)		EGARCH(1,2)		EGARCH(2,1)		EGARCH(2,2)	
	Normal	Student's t	Normal	Student's t	Normal	Student's t	Normal	Student's t
Variance Equation								
C(3)	-0.28047 (0.0000)	-0.32946 (0.0000)	-0.28134 (0.0000)	-0.34441 (0.0000)	-0.27908 (0.0000)	-0.31045 (0.0000)	0.19861* (0.4479)	0.20074* (0.5403)
C(4)	0.31003 (0.0000)	0.37036 (0.0000)	0.31104 (0.0000)	0.38833 (0.0000)	0.31297 (0.0000)	0.39672 (0.0000)	0.32312 (0.0000)	0.40679 (0.0000)
C(5)	0.02265* (0.1066)	0.00840* (0.7424)	0.02272* (0.1306)	0.00796* (0.7675)	0.00434* (0.9180)	0.04611* (0.5173)	0.10310* (0.7210)	0.17921* (0.6189)
C(6)	0.90148 (0.0000)	0.88749 (0.0000)	0.89686 (0.0000)	0.80823 (0.0000)	0.02265* (0.1104)	0.00602* (0.8084)	0.01718* (0.4661)	0.00017* (0.9924)
C(7)			0.00438* (0.9714)	0.07611* (0.6466)	0.90216 (0.0000)	0.89670 (0.0000)	1.17818* (0.2069)	1.21942* (0.2300)
C(8)							0.24722* (0.7690)	0.28493* (0.7531)
AIC	2.34146	2.27882	2.34266	2.27984	2.34266	2.27977	2.34378	2.28078

\* The coefficient is not significant at any confidence level (1%, 5% and 10%).

Source: Authors' computations

**Table no. 11: Estimation results of PARCH model for the SOFIX Index**

Variable	PARCH Asymmetric order 1							
	PARCH(1,1)		PARCH(1,2)		PARCH(2,1)		PARCH(2,2)	
	Normal	Student's t	Normal	Student's t	Normal	Student's t	Normal	Student's t
Variance Equation								
C(3)	0.05702 (0.0000)	0.07227 (0.0001)	0.05474 (0.0001)	0.07547 (0.0006)	0.05809 (0.0000)	0.06640 (0.0004)	0.07656 (0.0060)	0.00864 (0.2958)
C(4)	0.13776 (0.0000)	0.19328 (0.0000)	0.13236 (0.0003)	0.20226 (0.0003)	0.12543 (0.0006)	0.21107 (0.0003)	0.11227 (0.0013)	0.18384 (0.0000)
C(5)	0.02340* (0.4758)	0.00266* (0.9615)	0.02233* (0.4958)	0.00268* (0.9614)	0.02550* (0.4915)	0.00321* (0.9458)	0.02885* (0.5857)	0.00977* (0.4046)
C(6)	0.64315 (0.0000)	0.66874 (0.0000)	0.68561 (0.0007)	0.59966 (0.0151)	0.01510* (0.5893)	0.03208* (0.5578)	0.07607* (0.1991)	-0.16206 (0.0005)
C(7)	3.37319 (0.0000)	2.47335 (0.0000)	0.03149* (0.8180)	0.05451* (0.7659)	0.62785 (0.0000)	0.69356 (0.0000)	0.26237* (0.5944)	1.57717 (0.0000)
C(8)			3.39618 (0.0000)	2.46593 (0.0000)	3.43046 (0.0000)	2.47450 (0.0000)	0.21994* (0.4798)	-0.61468 (0.0000)
C(9)							3.54601 (0.0000)	2.42523 (0.0000)
AIC	2.32781	2.27491	2.32897	2.27602	2.32890	2.27593	2.32967	2.27565

\* The coefficient is not significant at any confidence level (1%, 5% and 10%).

Source: Authors' computations

### Conclusion

This paper comes up with a new approach which consists in employing the most predominant asymmetric GARCH models through comparison (EGARCH and PARCH), but in two stock markets at opposite poles: a developed stock market represented by the London Stock Exchange and an underdeveloped stock market – the Bulgarian Stock Exchange. The empirical results provide that the developed market is characterized by leverage effect (the PARCH(1,1) with asymmetric order 1 and Student's  $t$  distribution is the most adequate model for estimating the conditional variance in case of the FTSE 100 Index), but the interesting point in the paper is given by what is happening in case of the underdeveloped market, where neither EGARCH nor PARCH are good models for estimating the conditional variance of SOFIX Index. Future research should consist in the underdeveloped market analysis using symmetric GARCH models.

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## METHODOLOGY AND PERSPECTIVES OF VALUE JUDGMENTS IN ECONOMICS ON EQUILIBRIUM

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### **Abstract**

The rationale of this paper research concerns an epistemological perspective over equilibrium through methodological approach, hence the interest to outline one more time the essence of economics as a science using grounds of philosophy of science, such as value judgments. A familiar account of economic equilibrium is expected to provide a thicker shape of one of the well-known pillars of macroeconomics. As with equilibrium hypothesis revealed in economic literature by far, various hypothesis can be found in the literature. Having said this, the value-laden approach can be identified for an economic concept initially projected as value-free, whereas economics is a social science with ethical and other solid value judgments. Underlying this new approach could more integrate the concept of economic equilibrium within economics.

Considering the evidence from this paper, this approach puts forward new highlights of epistemological thoughts on knowledge on economic equilibrium.

**Keywords:** Value judgments, economic equilibrium, methodology, Cartesian/Euclidian mode of thought, Babylonian thinking

**JEL Classification:** A12, A13, B13, B41, E17

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### **Introduction**

Methodology is an important vector of knowledge. Though, complete knowledge is an abstract notion, virtually unreachable nor for the past, nor for the future. Methodology is focused on the way thinkers expose their theories, the way the theories are forged and used, and, above all, the way knowledge is birth and passes on the grounds of incertitude. As social thinkers, mathematicians or philosophers, economists are interested in projecting theories on individual behaviors and aggregate consequences of these behaviors. In the field of knowledge of economics, or whatever other area of research, methodology is of paramount importance. Namely, methodology brings support in understanding the channels of thought, why and how thinkers reached some ideas instead of others, what were their initial purposes and what were their findings. In addition, methodology sets criteria for assessment and the comparison of the theories. This is nothing more but the pure

mechanism of getting and providing crude knowledge (Dow, 1998). However, a common error in the philosophy of science is the juxtaposition in meanings between methodology and method. There are two major differences between the two concepts; even both of them support the rise of knowledge.

First, on the ground that the most scientific question is “why”, one difference between methodology and method is that the former is interested on the way economists answer to “why”, whereas the method supervises the set of answers for “how”. Namely, method provides the tools and the procedures within a theory to explain to the outsiders its meanings (Boumans and Davis, 1998, pp. 9). Further, this first difference in approaching the problem of equilibrium stands as follows: the methodology of economic equilibrium is about why we need an equilibrium point, and what the meaning of equilibrium within a market is. Thereafter, new channels of reflections come into attention: optimal allocation of resources, input-output analysis, type of equilibrium according to mobility, economic policies. Likewise, the “why” question regarding standard equilibrium open new perspectives on economic equilibrium such as Pareto efficiency or Pareto optimality. Consequently, attending to answer the “why” questions on economic equilibrium, new concepts requires their “why” questions, economic efficiency and income distribution. Then, one might wonder why the Pareto optimality is a tradeoff between the wealth of different individuals in competition for the same thing, whereas the answer is related on the scarcity of resources. This is methodology about. Conversely, “how” should market participants act in order to achieve their best outcomes using very limited means and resources are economic method about. Hence the reason why economics requires mathematics, statistics, accountability, meaning other sciences and tools, to answer to its “how” questions. This is but a minor example about how methodology underpins the development of knowledge. Second, the methodology is prescriptive and positive. This could mean that science it is what it is, counting only how it is conducted and how it is implemented, but it is difficult to assess it like value-free without further analysis (Boumans and Davis, 1998). There have always been in the paramount interest of science if what it is invented is good and desirable as well for the wealth of the humankind. Comparatively, method is more prescriptive, because is chosen accordingly to exogenous variables. Economic policies are biased by government agendas; henceforth a method will provide solutions about “how it should be”, not only regarding the best solution, but the most appropriate to the whole social and political context.

To sum up, methodology is but a particular case to understand the growth of knowledge through science, whereas the growth of knowledge concerns different other paths such skepticism (Vogel, 2005; Dancy, 1985; Fumerton, 2005), a priori knowledge (BonJour, 2005). Conversely, other contested a priori knowledge (Dancy, 1985; Devitt, 2005). Other fields of major interest in epistemology for understanding methodology are complementary to justification as presented authors like Jonathan Kvanvig (2005). Of major interest was the analysis of political implication over epistemology (Lloyd, 2008; Mills, 2008; Tiles and Tiles, 200).

### **Economics and value judgments**

The main purpose of this chapter is twofold: to reveal the historical roots of economic epistemology and to shape the concept of value judgments. Between 1920s’ and 1930s’ Vienna Circle (Wiener Kreiss in German) was the main vector of philosophy of science, at least in its modern formula where almost all the main epistemological principles are

developed from. The menace of the war outbreak made a surge brain along the Atlantic, therefore the philosophical movement from United States from the 1950s' had its roots from the ancient philosophical ideas from prewar Vienna and Berlin.

Between the two world wars, intellectual life in Europe has made its golden era, and social sciences were no exception. Philosophy, psychoanalytic, sociology and economics awake after the World War I keeping up with fundamental sciences, from which physics and chemistry seemed to be uncontested leaders. And like these fundamental sciences, the enlightened minds of Vienna Circle wanted a pure philosophy of science, value free and Meta psychological free, hence their research program based mainly on either analytical or synthetic knowledge.

During the time Vienna Circle called on its scientific perspective over the world, the counter perspective on metaphysical endeavors was particular to England, with a tradition on empiricism. One of the main philosophers was at that time Bertrand Russell and he maintained a solid ground of British philosophical mainstream (Russell, 2013). Nevertheless, Vienna was at that moment one of the most important intellectual cluster from the world, with ideas derived from art and enlightenment, empiricism and complementary methodologies, and free social and economic movements from England. The Vienna Circle basic orientation was a science free of metaphysics and free of value judgments. The general distinguishing scientific beliefs within Vienna Circle were published in *Monographs on the Scientific World-Conception (Schriften zur wissenschaftlichen Weltauffassung)* and can be listed as follows:

- The world has not theses by its own, but attitudes, points of view and direction of research. The goal of philosophical work was a unified science. There are not hidden places, but only surfaces and experience should provide all the knowledge.
- Everything was accessible for man, and the scientific perspective over the world was that there cannot be riddle out of the reach of solving (Hahn, Neurath and Carnap, 1929, pp.6).
- “Every branch of science is led to recognize that, sooner or later in its development, it must conduct an epistemological examination of its foundations, a logical analysis of its concepts” (Hahn, Neurath and Carnap, 1929, pp.12). The purification of social sciences of meta-physics is not as reachable as in physics. But is not mandatory, nor urgent, because metaphysics has never been strong in economics, and particularly in history of economics (Hahn, Neurath and Carnap, 1929, pp.12). An explication of these was pointed by Hahn as the fact that at least in Classical economics, the first works were mainly empiricist, meaning with anti-metaphysical attitude, on the grounds that “the object of history and economics are people, things and their arrangement”.
- “There is no way to genuine knowledge other than the way of experience; there is no realm of ideas that stands over on beyond experience” (Hahn, Neurath and Carnap, 1929, pp.13)

Philosophy of economic science, as we know it, has its methodological roots within Logical Positivism from Vienna and Berlin, beginning in 1920s' under the philosophical wing of Vienna Circle and moving across the Ocean because of the World War II in an American movement until the 1950s'. The main scientific grid of Logical Positivism derived from two basic principles:

- Logic, everything is an extension of logic;
- Positivism, everything people see and feel is a result of their experience, and is empiric, hence the notion of Logical Positivism.

Just as Vienna Circle has claimed, on the grounds of eradication of metaphysics within scientific knowledge, Logical Positivism was into the demarcation between science and pseudo-science. This demarcation on the ground of positivism perspective has finally lead to a method demarcation between scientific propositions: analytic and synthetic.

Analytic propositions are tautological, with truth value by it selves, whereas synthetic propositions are consequences of experiences and observations. Having the foundations on the philosophical stand points of David Hume and Ernst Mach, the core idea of positivism is that experiences through senses are the only true way to acquire knowledge. In the meantime, a synthetic proposition has meaning if one can assess through observation. It could be said that the sentence is empirically evaluated (Boumans, 2010, pp. 11). Accordingly, sentences from ethics and religion have no scientific meaning. But the real quest of admitting economics as a science was on the value judgments.

Generally, value judgments have normative frame, and the mainstream of the philosophy of science put economics in a value-free spot. In 1932 in *An Essay on the Nature and Significance of Economic Science*, on the topic of value judgments and economics as a science, Lionel Robins stated that “Economics is neutral as between ends. Economics cannot pronounce on the validity of ultimate judgments of value” (Robins, 1932, pp. 131). But Lionel Robins wrote this almost at the end of the Great Depression, in a moment when in Europe extremal political regimes have taken already the lead, like fascism in Italy and Nazism in Germany, whereas communism in USSR had also gained control and begun to export its perilous ideas across the world. Indeed, there is something connecting economic policies and its ends, and economic science is under no circumstances out of this. Moreover, human action ends imply ethics and value judgments and about ethics and economics, Lionel Robbins stated that “unfortunately it does not seem logically possible to associate the two studies in any form but mere juxtaposition. Economics deals with ascertainable facts; ethics with valuations and obligations. The two fields of enquiry are not on the same plane of discourse. Between the generalizations of positive and normative studies there is a there is a logical gulf fixed which no ingenuity can disguise and no juxtaposition in space or time can bridge over” (Robins, 1932, pp. 132). In 1930s’ the Vienna Circle was still dominating the intellectual mainstream of philosophy of science, therefore is not surprisingly the strong beliefs of a great thinker like Lionel Robins at that time. However, on this topic Lionel Robins also stated that “it is not to say that economists should not deliver themselves on ethical questions, (...). On the contrary, it is greatly to be desired that economists should have speculated long and widely on these matters, since only in this way will they be in a position to appreciate the implications as regards given ends of problems which are put to them for solutions” (Robins, 1932, pp. 134). To sum up, this means that, after all, methodological axioms do not avoid connections with outer interests.

### **Types of thought and economic equilibrium**

The concept of equilibrium is a master pillar of the mainstream in Economics. Equilibrium means a frame of relations within a decentralized system. Its roots are to be traced back in the Classical School where the “invisible hand” of Adam Smith (1992) was the most related concept, along with the positive consequences when people voluntarily tend to follow their personal interests. Economic equilibrium was configured in a systemic approach first by Leon Walras, who put the logic before belief. Therefore, he projected an axiomatic abstract model able to be fixed with data gathered from reality. A simultaneous clearing was to be

set for all the markets. The most important thing to Walras equilibrium is that its goal is the social welfare. Indeed, economic equilibrium should bring balance between supply and demand, and its social goals as economist developed equilibrium after Keynes, is not very specific in this matter. Therefore, the problem of economic equilibrium become more complex if a mathematical background is dedicated to social welfare. Social welfare and mathematical equilibrium point in economics have different background as types of thought. Nonetheless, Leon Walras research aim stood for a pure economics, in other words a value-free economics, a positive one, just as Vienna Circle stated on the topic half a century afterwards: "I say that things are useful whenever they can be put to any use at all; whenever they are seen to be capable of satisfying a want. In this connection, there is no need to consider the subtle shades of meaning classified in ordinary language under terms ranging from the necessary to the useful, from the useful to the agreeable, from the agreeable to the superfluous. For present purposes, necessary, useful, agreeable and superfluous simply mean more or less useful. Furthermore, we need no concern ourselves with the morality or immorality of any desire which a useful thing answers or serves to satisfy. From other points of view the question of whether a drug is wanted by a doctor to cure a patient, or by a murderer to kill his family is a very serious matter, but from our point of view, it is totally irrelevant. So far as we are concerned, the drug is useful in both cases, and may even be more so in the latter case than in the former" (Walras, 1938, pp. 65).

But there was a quite opposite view, on the grounds that value-laden economic concepts generates an economic point of view, not a neutral, value-free one. On this topic Gunar Myrdal (1953) on the topic of social and economic decision without interest stated that: "The student of economics is taught to think in economic terms. This means chiefly – or so we are repeatedly told – that he should cultivate the ability to see and understand economic phenomena, rapidly and exactly, in a specific light, i.e. observe them from a particular point of view and classify them according to certain theoretical categories. The actual choice of viewpoint and categories will, of course, depend, in the last resort, on the underlying epistemological approach. Once one has grown accustomed to thinking within the frame of the inherited normative system, which offers the assurance of a "beaten track", it becomes difficult to step aside and inspect the system from outside" (Myrdal, 1953, pp. 22).

The equilibrium model has mechanical time instead logical time, but the goal of attending an equilibrium point is to be reached. General equilibrium models are not real. Their mainframe is built on theoretical *a priori* principles, and does not provide solutions but indications and condition sets, able to lead to a harmonious behavior on the market. Nevertheless, the general theory of equilibrium does not mirror the reality. Instead, it begins with the study of unmeasurable data in order to provide measurements for real measurable data. The system is finally tested through falsificationism having the scientific criteria of Cartesian/Euclidian model (Dow, 2000, pp. 119).

As with the methodology and the types of thought supporting it, various explanations types of thought can be found in the literature. Having said this, two main approaches of types of thought can be identified. Methodology provides a general frame within theories are shaped on the steps of discoveries, theories are improved, accepted and used, adding added value for knowledge, whereas the way we thought is about justification and arguments in the process of assessment of validity of a theory. One type of thought is the Cartesian/Euclidian system of axioms, self-evident, used in the deductive reasoning processes for non-evident theorems. Pure theorems resides only in mathematics, because

mathematics is the only science suitable to be observed free of observation of reality. Thus, the problem of the rationality of the consumer implies deduction and theorems, but they are not self-evident. Only mathematics is. Equilibrium within economics is close to mathematics and Cartesian/Euclidian type of thought. The other way of thought is the “Babylonian thought”. This way of thought implies arguments from different sources and which, in a good theory, back up to each other and grow together. This is a way knowledge is generated through practical vectors using different methods (Dow, 2000, pp. 12). This is a type of logic argument used in expressing ideology and law, wide spread in paper of Babylonians, Romans, Talmud, hence the expression of “Babylonian thinking”. The argument will be laden only by the issue to be researched (Dow, 2000, pp. 13).

Equilibrium is bound to the absence of global increasing returns to scale. These returns come with the tendency to rise, eroding the base of competition on the market up to the point of absolute monopoly where all the scale economies are exploited (Kaldor, 1972). The weak methodological stand of the equilibrium is the atomicity of the market, according to which, numberless individuals are to be convergent through optimal agreements with optimal resources, technology, independently of a particular historical context. To sum up, the equilibrium is limited by exogenous variables. Another path to develop the equilibrium is to rise the number of endogenous variables, but doing this, the explanatory capacity of the system will be altered in explaining the realities of the market.

The economic equilibrium could be analyzed within the perspective of a puzzle: Thomas Kuhn pointed out that scientist as puzzle-solvers know that the solution is somehow guarantee. At least on the paper, the equilibrium point is reachable. Every piece of the puzzle is a new solution of an equation of the equilibrium model, and the general solution should be attained when all the puzzles are matched to its places. No matter how the puzzle-solvers match the pieces, as long as they match them, the solution as the equilibrium point is to be achieved. From this perspective, the economic equilibrium is nothing but an economic paradigm as others (Kuhn, 2008, pp. 98).

To sum up, economic equilibrium is a concept within a Cartesian/Euclidian type of thought. It is virtually impossible to conceive a matrix of equations to gather atomicity of market. Using falsificationism backgrounds, it is almost impossible to avoid a particular case when a specific combination of relation between market participants would alter the equilibrium point (Popper, 2001). Nevertheless, economics is a science of Babylonian thought, accordingly to this, the economic equilibrium seems to be thrown away from economic science. The solution to this methodological dead end is the switch from falsificationism to the paradigm shift of Thomas Kuhn. From a paradigm perspective, the economic equilibrium concept not only stands in economics, but stands resolute as one of the most important concepts to bring balance to market.

### **Conclusions**

In all, the methodology of economic equilibrium reveals the positive backgrounds of a major concept of the mainstream of a normative science. Economics was seen as a value-free science for almost a half a century, whereas today it is generally agreed that value judgments are inherent to economics. The problem of economic equilibrium does not pass the full spectrum of underpinning arguments for value-laden. Gunnar Myrdal (1958) expressly has pointed out that there is no such a thing like a social science without an interest (Boumans and Davis, 2010, pp. 174). Likewise, the problem of drug disputed between doctor and killer is value-free, otherwise unable to be put into an equation within

the equilibrium model. Mathematics and physics do not have interests, but economics does. It is not the case for the equilibrium. We are taught to think in economic and social matter, whereas the equilibrium point fails to match both. However, the equilibrium has only methodological value judgments, namely the fact that from the very beginning Leon Walras underpinned the value-free pattern of the equilibrium. The third value judgments test for the equilibrium, the ethical implication of rational choices, has been clearly overshadowed by the presentation of the equilibrium backgrounds.

The main contributions of this paper is to provide a different perspective of analysis of equilibrium, with value judgments and within the quest for the scientific pattern of economics as a science. However, the equilibrium issue is open and the ethical requirements of modelling the equilibrium is more and more under the jurisdiction of economic policies. The most appropriate way to understand and accept economic equilibrium as an important pillar of mainstream is to juxtaposition it on the paradigm mode of thought, accept the existing best, and permanently hope for a new better one.

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## **UNDESTANDING THE SHARING ECONOMY: HOW COLLABORATIVE CONSUMPTION IS CHANGING THE RULES OF BUSINESS**

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### **Abstract**

A new type of organizations is emerging based on an idea as old as human existence: sharing. Enabled by innovative Internet technologies and a cultural shift toward peer-to-peer collaboration, they gradually help build up a hybrid market model, based on the sharing of access to goods and services. On one side, the main entities making up for this more democratized marketplace - what we generally call sharing economy - are fundamentally capitalist enterprises, but simultaneously more socially and environmentally conscious ones. On the other side we find evolved consumers, with a capacity of switching between the classic buyer/consumer role and that of micro-entrepreneurs, collaborating to produce and access resources. The aim of this article is to analyze the phenomenon of sharing economy from multiple angles: its triggering factors, its driving forces, as well as the praises and the controversies it generates. Without forgetting to look at the ways policy might help facilitate the growth of sharing economy. We are thus hoping to lay another brick to the better understanding of this major economic, social and cultural shift.

### **Keywords**

Sharing economy, collaborative consumption, Internet innovation, peer-to-peer markets, crowd-sourcing, consumer-to-consumer relationship

### **JEL Classification**

O33, L17, L22, D47

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### **Introduction**

Popularized by Botsman and Rogers in 2010, sharing economy is an umbrella term regrouping a myriad of peer-to-peer lucrative activities enabled by online platforms. Plain and simple, it relies on the users' will to share; users who prefer mutualizing access to goods or services, rather than having individual ownership (Belk, 2014). A very broad understanding of the concept includes, in one way or another, forms of collaborative consumption (like car or room sharing services), collaborative lifestyles (like co-working or flat sharing), collaborative financing (crowd-funding, alternative currencies, peer-to-peer lending) or even collaborative production (Fablabs, 3D printing etc.).

All these sharing economy arrangements have flourished thanks to innovative Internet technologies, bringing people together and fostering their collaborative creativity and productivity. These technologies make it cheaper and easier than ever to aggregate supply and demand for a broad spectrum of products and services, as pointed out nicely by Boudreau and Lakhani (2013). They also help provide another vital ingredient – secure platforms for financial transactions. Moreover, thanks to online social networks and recommendation systems, building trust among users is naturally taken care of.

The prerequisites for a collaborative economic model are thus established. And the potential for growth is enormous. A PriceWaterhouseCoopers study from 2016 measured the generated revenue from a few of the most important sharing sectors – automotive, hospitality, finance, staffing and media streaming - to \$14 billion. With the reach of new products and services using digital platforms expanding quickly, they estimate this figure growing exponentially, to reach \$335 billion in 2025 (based on the rapid growth of main sharing economy platforms as an indicator).

Last but not least, the sharing economy phenomenon is also in line with an increased interest in environmentally sustainable practices. Borrowing principles from the circular economy theory (Cohen and Munoz, 2015) it relies on empowered consumers building up strong communities. As Garcia (2013) has suggested, it all stems from our increasing desire to be in control of our consumption instead of simply falling prey to a perpetually grotesque hyper-consumption.

The underlying purpose of this article is to synthesize, based on existing research, the up-to-date understanding of sharing economy as a concept. We will concretely look at how this new range of ventures is reshaping our business landscape, what triggered the whole paradigm shift toward a sharing economy as well as its implications. We will ultimately strive to emphasize the crucial importance of policy shaping in this sense, with some concrete suggestions for future research rooted in political economy.

### **Sharing economy: the denomination controversy**

As trending as sharing economy might be as a term - as we said, mainly thanks to Botsman and Rogers (2010) - it sure is generating its fair share of controversy. Not so much in terms of what we understand by it, there seems to be a consensus there along the lines of what was defined “the peer-to-peer-based activity of obtaining, giving, or sharing the access to goods and services, coordinated through community-based online services” (Hamari, Sjöklint and Ukkonnen, 2016, p. 2047).

But mostly for what we call it and why we call it this way. The novelty of the concept makes it hard for people to agree on a single name for such an overwhelming phenomenon. This is why, as summarized by Chandler (2016), we also find it referenced as gig economy, platform economy, access economy, collaborative consumption or uberization.

Some have even argued that “sharing economy” is a misnomer and that it would be more accurately called “access economy” (Cagle, 2014). The main argument is that market-mediated sharing is no longer sharing at all. Via different established companies playing the role of an intermediary, consumers are actually paying to access someone else’s goods or services.

Among all terms mentions above, “collaborative consumption” is the one least criticized as being misleading. Coined by Felson and Spaeth as far back as 1978, it is maybe the most widely accepted term to describe the object of our analysis.

**A bit of context: triggers and drivers of the so-called sharing economy**

It is more than obvious, we are contemporary with a deep socio-economic change, with a multitude of cultural triggers and impacts. Rifkin (2012, 2014) argues we are actually witnessing the twilight of capitalism, brought about precisely by this conjunction of Internet innovations and sharing economy. He even states that the rise of web 2.0 technologies and social media led to a “zero marginal cost”, rendering obsolete the capitalistic concentration. But a potential substitution of one system with another is still far-fetched. Leading companies of the sharing economy such as Uber and Blablacar in ride sharing, Airbnb in room/flat sharing or Lending Club in finance are clear examples of hybrid companies (capitalistic basis and collaborative functioning – Sacaraboto, 2015).

What these entities are doing is taking advantage of newly created redistribution markets, where used or pre-owned goods are being passed on, reused or used by other people when they are not needed by their owners. All of these processes are unlocking new levels of value for what already exists but is underused. This mindset has been gaining a lot of ground during the past few years, especially in the context of increasingly scarce and expensive resources.

Equally important as a trigger, the recent economic crisis have created important revenue gaps for most individuals, who in response turned to self-employment opportunities offered by the share-based online platforms. From what we gather from Schor’s debate (2014), this is actually one of the most criticized aspects of the sharing economy: the fact that it isn’t innovative in itself, but a mere economic reaction of economically struggling individuals. A natural socio-economic evolution, agents adapt to current conditions, using available resources (mainly technology) to find viable alternative solutions to employed work. But when rooted in poverty, sharing economy suddenly doesn’t seem so glamorous anymore.

Let’s look also on the bright side. Departing from the concept of commons-based peer production, Benkler (2004) talks about shareable goods and how they can stimulate new consumption, raise productivity and catalyze individual innovation and entrepreneurship (as reiterated also by Alexandrescu et al., 2014). This point of view is revisited by Brownlee and Kueneman (2012), who reinforce the idea that basically, the role of the sharing economy is to take idle capital and turn it into new sources of revenue.

We can definitely argue that the share-based business and organization models are tapping just into this opportunity. It is a disrupting force not to be overlooked. Platform-based companies such as the previously mentioned ones, enabled by the rise of the Internet, are the leading driving force of the sharing economy as a phenomenon. Along with all the technical advancements prerequisites it encompasses, of course (state of the art IT, smartphone ownership, online commerce, social media, mobile apps etc.).

According to Davidson and Infranca (2016), the urban lifestyle can also be considered an important driver as, on one hand, life in big cities provides the necessary proximity condition for community-based activities (such as sharing of goods and services) to flourish. On the other hand, the centralized urban setting creates “problems” that can be easily solved via online-based platforms like Uber and Airbnb (Geron, 2013).

Lastly, it is pertinent to mention the ecologic component of this movement. There is a whole current of consumers and organizations worldwide becoming more and more environmentally aware. The sharing economy benefits from this, as it is offering the possibility for improved, sustainable business models, as well as smarter, environmentally-conscious consumption (Brownlee and Kueneman, 2012; Brady, 2014).

### **Collaborative versus conventional consumption**

As a more generally accepted term for sharing economy, collaborative consumption can be defined more or less along the same lines, as the set of resource circulation systems, which enable consumers to both "obtain" and "provide", temporarily or permanently, valuable resources or services through direct interaction with other consumers or through a mediator (Ertz, Durif and Arcand, 2016 a,c). There is great deal of contrast between this notion and that of conventional consumption, the one involving passive consumers who cannot or are not given the capacity to provide any resource or service.

As opposed to this limiting mindset, but one that has been perpetuated for decades and decades before the rise of the Internet revolution, collaborative consumption involves not mere "consumers" but "obtainers", who do not only "obtain" but also "provide" resources to others. Their capacity to switch roles from "provider" to "obtainer" and from "obtainer" to "provider" in a given context might be the biggest underlying factor to this major socio-economic and cultural shift (Ertz, Durif and Arcand, 2016 a,b).

Each and every one of us can relate to the evolved consumer or the prosumer as Ritzer (2014) likes to say. While we are only starting to embrace this groundbreaking mindset, future generations will have been born into it. With even more advanced technological tools at their fingertips, it is fascinating to think about the potential of collaborative consumption in the years to come.

This being said, the trust factor remains the fundamental component of collaborative consumption systems. May it be between peers or in the platform itself, all actors of the sharing economy should consider it as such and set up or aliment trust-enabling mechanisms. If we should adopt the vision of Hawlitschek, Teubner and Weinhardt (2016), trust is arguably *the* currency for sharing economy transactions. It is also an important factor in the self-policing approach adopted, willingly or not, by participants in the sharing economy. Nevertheless, we mustn't forget that occasionally things can and do go wrong. Peer-rental sites are thus forced to take steps to protect themselves and their users. This clearly shows the need to formal policy development, as the lack of regulation represents an obstacle for the development of the sharing economy on multiple levels.

Lastly, we believe it is important to address the social protection component of collaborative consumption. The shift from employed work to more and more independent workers, the micro-entrepreneurs acting as the sharing economy "providers" might leave them socially vulnerable. In a context of more or less generalized collaborative consumption, the essential relies in how to guarantee their social protection and assure a proper adaptation of the currently existing mechanisms in this sense.

### **Policy shaping for the sharing economy**

A policy agenda for the sharing economy is of utmost importance. Despite the general enthusiasm surrounding sharing economy ventures, outdated regulatory frameworks are a pressing issue. On top of that, a certain hostility from established companies in sectors most disrupted by sharing economy business models must also be addressed.

The process of regulating an emerging market or technology is very complex and hard to figure out right. It will rely on past models, whether we want it or not, while facing strong resistance from competing established actors. An example that speaks for itself goes back to the dawn of the automobile industry in the United States of America, as we were happy to retrieve from Bardhi and Eckhardt (2012). While earlier regulations tended to prioritize the horse, powerful railroad companies fought hard to keep the automobile from emerging

as a competitive threat. These counter forces ended up delaying by years the construction of automobile infrastructure and thus the development of this industry.

Approximately the same pattern can be distinguished nowadays in the case of peer-to-peer car sharing and room or house renting industries. For the former, the twin resisting forces are represented by insurance regulations on one side and taxi companies are threatened by dynamic ride sharing, on the other. In turn, hotels are threatened by the increasing numbers of peer-to-peer room and house rentals.

The role of the government should be to monitor these kind of collaborative activities and find innovative ways to regulate and tax them. By innovative ways we mean mainly ways that would not hinder the development of sharing economy ventures. We believe there might be a great deal of inspiration to be drawn in this sense from the concept of platform cooperatives developed by Scholz and Schneider (2015, 2016) and what has already worked well for such cooperative models, well described also by Cantoni (2016).

### **Conclusions**

The sharing economy is slowly but surely reshaping the global economy. Increasingly versatile Internet technologies and a shifted perception of participants' role in what is already established as the sharing economy fuels its development. All this pushes the existing political-economic system towards a fundamental structural change.

We must admit collaborative consumption is still in its infancy. But as it will inevitably become a greater part of the business environment and of our socio-cultural system as a whole, all obstacles in its way will have to be addressed. Inappropriate regulations and fearful established companies are threats that cannot be overlooked for much longer.

The role of adapted policy shaping is crucial from this point of view. Local and regional governments are already late in coming up with ways of sustaining the growth of collaborative consumption. Beyond this aspect, peer-to-peer online platforms in different fields also need to be protected from established companies that might try to use the power of government to kill competition. In our humble opinion, part of the solution could be a mobilization towards a tax structure that does not penalize collaborative consumption.

Above it all, we strongly encourage further research looking deeper in the different sub-aspects of sharing economy, all for a better assessment of the forces currently at play. The sharing economy actors need to have a strong overview of their playground in order to know both what to ask for and what needs still to be created.

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## DETERMINANTS OF INTERNATIONAL MIGRATION FOR GROWTH FROM EUROPE 2020 PERSPECTIVE

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### Abstract

Migration has been studied intensively from the perspective of the types of factors that trigger people to emigrate or to return to their countries. Taking into account the most popular migration theories, various determinants that influence people to migrate are analysed, using panel data regression model for 24 EU countries, for a 5-year time span, from 2008 to 2012. The analysis is conducted in the context of the Europe 2020 strategy. The results show significant influences on migration from risks of exclusion, whether social or economic, with young people not in education, employment or training and people at risk of poverty or social exclusion tending to migrate. These findings confirm the neo-classical theory of migration of low skilled workers.

**Keywords:** Migration, growth, NEET, Panel Data, Pooled Regression

**JEL Classification:** C23, F22, O15

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### Introduction

Migration has been studied intensively from the perspective of the types of factors that trigger people to emigrate or to return to their countries. It is obvious that literature regarding migration domain is generous, with different theories that explain the migration determinants, using different approaches to various issues regarding migration. The most acknowledged theories refers to: the neoclassical theories of migration that emphasizes the role of this process on labour market based on the economical determinants (Lewis, 1954) (Todaro, 1976) and the new economics of labour migration (NELM) developed during the 80s shows that the income maximization is influenced also by the skills of the migrants and that „older workers are less mobile than young workers” (Stark & Bloom, 1985). Other theories that explain migration and its determinants by introducing the idea of status and prestige that is offered through the experience of migration, and is also encouraged by the country’s legislation, related to the emigrant’s social network or cultural factors (Piore, 1979).

Thus, classical factors of international migration are related to economic and social determinants. Belot & Ederveen (2011) used the OECD data based on Continuous Reporting System on Migration (SOPEMI) for a data panel of 22 OECD countries from 1990 to 2003. Their study focused on six categories of variables referring to population size of the country, cultural aspects, and migration policies, demographic and economic issues. The results showed that the cultural barriers play an important role in the determinants of migrations, since for the culturally distinct countries the migration flows remain low. Also, for the EU-15 countries the culture is not as important, only religion and language distance remain significant, but they confirmed the neoclassical theory of international migration regarding the benefits-cost, as unemployment had a negative significant effect on emigration (Belot & Ederveen, 2011).

Another trigger for people to emigrate is the low income obtained in their origin country, so most individuals will choose countries that offer a sizeable amount of money to satisfy their need. A wide range of aspects that motivate people to emigrate can be mentioned, most of which are related to the basic needs, never the less the aspect of prestige cannot be excluded (Goschin & Roman, 2012).

The work-related migrants usually do not have a high social status in the host country, as they may have entered the respective country illegally or with a temporary work contract. Consequently, they usually have lower working conditions than the nationals of the host countries even though they may have better skills that facilitate the employment in their home countries. The work-related migrants are generally employed in sectors such as construction, hotels or restaurants, health care and usually their workplace does not require a high level of education (I.L.O., 2010).

An analysis conducted on a large number of developing countries for a time span of 28 years, from 1975 until 2002, showed that remittances function as substitute for financial limitations; moreover, the allocation of capital is improved by remittances, which thus promote economic growth in case the financial needs of the population are not fulfilled by the financial sector (Ruiz-Arranz & Giuliano (2005).

By applying panel data regression for 14 OCDE countries in the period 1980-1995, based on data from various sources (Global Development Network Growth Database from World Bank with regard to data on macroeconomic variables and International Migration Statistics for immigration data), Mayda (2009) revealed that international migration has positive correlation with per worker GDP levels for the origin countries. The results of the same study showed that immigrants become an important source of revenue growth, since any person who migrate into a country contribute to the growth of GDP.

Over the nexus between migration and development of a country it has been shown that there is a strong correlation regarding all 28 European Countries.

Migration also includes the acquisition of education, mainly because this service is the most accessed by migrants. In UK besides health and housing services, most of the debates regarding migration have been focused on education (Rolfe et. al., 2013). Actually mobility of students goes together with migration and it is most likely that the young and skilled persons would choose the permanent migration (Roman & Suciu, 2007).

Studying the impact on migration intentions of inequality and education in EU10 after the enlargement, Zimmermann & Zaiceva (2008) found that education level of the migrant can influence the decision of migrate. The analysis employed a Logit model and showed that the higher the education, the higher the probability to emigrate. They put the result in the context of self-selection, as for the persons with higher skills have a reduced cost of

migration compared with low-skilled migrants. Moreover, when comparing with the post-enlargement countries EU 15, they observed that the probability to emigrate maintains as the years of schooling increases (Zimmermann & Zaiceva, 2008). In 2013 UK has registered nearly one in two migrants that have attained tertiary education (Rienzo, 2014). Son (et. al., 2012) showed that the stock of emigrant stock increase by 1% if the education level is upper secondary or tertiary, and that unemployment reduces the stock of emigrants, and if the wages increase, then the emigrants stock increases as well. They included unemployment rate, wages and population density in addition to education, to observe whether educational background have any implication in emigration process, in order to analyse the determinants of labour emigration for the New Member States added to EU-15. (Son&Noja, 2012).

Regarding the education level of the European migrants in EU the higher level of education attainment correspond with the population flows within EU, as higher level an education can bring also a high level of income, so people the more educated they are, the more likely they are to migrate. Migrants from France, the Netherlands, and Hungary have higher educational levels compared to South East European countries. Romania differentiates from the countries from former USSR and South East Europe with high educated emigrants in the destination countries (Hagen-Zanker & Himmestine, 2012). Also the study pointed out that education is very important in terms of migration influencing the skills of migrants, which are important because these skills will determine the future of economic growth.

More recently, some studies showed that a factor that level of social protection expenditures of a country can influence migration. One may consider that the generosity of social policies of a country acts as a emigration magnet for some categories of people to emigrate. Nevertheless, social expenditures in European Union countries do not play the role of insurance against poverty, as an increase in social insurance determine a decrease of emigration (Hagen-Zanker & Himmestine, 2012) (Prada & Roman, 2014).

From the perspective of sending countries migration is consequence of a wide range of reasons including economical such as unemployment, negative perception of the economic growth or poverty (Frédéric, 2013).

Based on the presented literature, the focus of the analysis is on the identification of variables that influence migration from the perspective of social and economic factors, according to the most popular migration theories. Moreover, the analysis is placed in the context of Europe 2020 strategy, which aims towards achieving smart, sustainable and inclusive economy, taking into account the social and economic dimensions. Of great interest was considered to analyse the influence of the variable regarding young people not involved in any form of education, neither working (NEET), which has been developed in recent years in Europe.

### **Data and method**

Given that migration has been placed significantly both under the social and economic perspectives, a series of variables which influence people to migrate were included in the analysis, as highlighted in above-mentioned migration theories, while also taking into account the policy framework set for the current analysis, that of the Europe 2020 strategy, with its headline indicators for smart and inclusive growth used to monitor the above-mentioned strategy. Thus, the analysis includes the variables presented in table 1, with crude net migration as the dependent variable of the panel data regression model.

**Table no. 1: Description of variables taken into account in analysis, from Eurostat database**

<b>Variable</b>	<b>Abbreviation</b>	<b>Short description</b>
<b>Crude migration net</b>	Mig_rate	Net migration expressed per 1000 inhabitants. Net migration is calculated as the difference between immigrants and emigrants. Emigrants are the persons who leave their native country with the intention to settle in other country. Immigrants represent the persons that are settled in a country to which they are not native.
<b>NEET (not in employment, education or training)</b>	NEET	Percentage of people aged 18-35 not employed, nor involved in any form of education or training
<b>Wages</b>	Wage	"the total remuneration, in cash or in kind, payable to all persons counted on the payroll (including homeworkers), in return for work done during the accounting period" (Eurostat definition); it includes wages and salaries, it does not include social contributions.
<b>Social Contributions</b>	Soc_contrib	Employers' social contributions and other labour costs paid by employer
<b>Gross Domestic Product (GDP) per inhabitant</b>	GDP/C	GDP per inhabitant computed as Euro per inhabitant
<b>Gross domestic expenditure on research and development</b>	R&D_exp	Percentage of GDP represented by research and development expenditure
<b>Tertiary education 30-34 years</b>	Tert_edu	Percentage of people from age group 30-34 with finalized tertiary studies – ISCED levels 5 and higher
<b>Employment rate</b>	Emp_rate	Percentage of employed people from age group 20-64 out of the total population aged 20 to 64
<b>People at risk of poverty or social exclusion</b>	Pov_risk	Percentage of population at risk of poverty or social exclusion of total population

Since migration may represent both opportunity and challenge, the analysis includes variables that may be viewed as measures for opportunities or for challenges. In terms of smart growth, from the perspective of opportunities, variables regarding employment (employment rate), GDP per inhabitant, as this is a robust indicator of economic development of a country, as well as research and development are taken into account. Education is approached both as opportunity, taking into account tertiary education attainment, and as challenge, taking into account not the Europe 2020 headline indicator for early leavers, but the variable related to young people neither in education, employment and training. This recently developed indicator has been considered quite important in

recent studies developed for defining European policy approaches (Eurofound, 2012), which argue that this indicator is a "measure of disengagement from the labour market and perhaps from society in general". While NEET refers to youth, as there is no commonly agreed definition in terms of lower and upper age limit, the focus here is on the age group up to 35 years, as this is the upper age limit mentioned by the Council of Europe. In terms of inclusive growth, variables related to social aspects such as wages, social contributions and people at risk of poverty or social exclusion were included.

Given the availability and reliability of data that are of interest for the current research, the analysis is conducted on 24 European Union countries: Austria, Cyprus Czech Republic, Denmark, Estonia, Finland, France, Germany (until 1990 former territory of the FRG), Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom. The time frame selected for analysis includes 5-year time span, from 2008 until 2012. The source of data for the indicators taken into account is from Eurostat database.

The analysis was conducted using fixed effects regression model for panel data. The regression model is different in the case of panel data than in the case of OLS regression because panel data regression model provides information of both dimensions: over time and over individual cases, which in this case are countries.

The general model of panel data can be described as:

$$y_{it} = \alpha_i + \sum_{k=1}^k x_{ikt} \cdot \beta_{ikt} + e_{it} \quad (1)$$

Where:  $i = 1, \dots, N$ , with  $N$  being the number of cross-sectional dimension (or individuals);  
 $t = 1, \dots, T$ , with  $T$  being the number of time dimension (or period).

The fixed effects model, also known as the within estimator, has the assumption that the error term is correlated with the constant or individual specific term  $\alpha$ , because the model can exclude or omit the time-invariant variables (as gender, religion etc.) from the model (Greene, 2002). The model employed in the analysis is the fixed effects model for panel data set due to fact that this analysis does not include time invariant variables. Also, the effects of these variables are included by the within estimator in case of fixed effects estimation model (Greene, 2002).

### Results and discussions

Migration was studied by using various analyses, which include also panel data regression models, most of them highlighting the macroeconomic determinants and push or pull factors of migration.

Using Stata 12.0, the crude rate migration was modelled as a function of NEET 18 – 35 years, wages, social contributions as percent of GDP, the logarithm of Gross Domestic Product per inhabitant, employment rate, tertiary education for age group 30-34 years, research and development expenditure as percent of GDP and risk of poverty or social exclusion among people of 15 – 64 years, in order to analyse the influences between these variables.

**Table no. 2: Correlation coefficients**

	Mig_rate	NEET	Soc_contribution	wage	GDP/C	Emp_rate	Tert_edu	R&D_exp	Pov_risk
Mig_rate	1	-0.51	0.07	0.07	0.10	0.29	0.20	0.14	-0.57
NEET	-0.51	1	-0.04	-0.09	-0.10	-0.79	-0.37	-0.55	0.66
Soc_contribution	0.07	-0.04	1	0.70	0.68	0.099	-0.05	0.001	-0.04
Wage	0.07	-0.09	0.70	1	0.95	0.14	-0.079	-0.02	-0.03
GDP/C	0.10	-0.10	0.68	0.95	1	0.16	-0.08	-0.01	-0.07
Emp_rate	0.29	-0.79	0.099	0.14	0.16	1	0.39	0.65	-0.60
Tert_edu	0.20	-0.37	-0.05	-0.079	-0.08	0.399	1	0.32	-0.24
R&D_exp	0.14	-0.55	0.001	-0.02	-0.01	0.65	0.32	1	-0.54
Pov_risk	-0.57	0.66	-0.04	-0.03	-0.07	-0.60	-0.24	-0.54	1

After modelling the data, the results of the panel data regression model were analysed. Given that the regression model for panel data implies the use of the same method as in the case of simple linear regression, when validating the hypotheses of OLS method, the coefficients of the fixed effects regression model were estimated, as shown in the Table 2.

**Table no. 3: Results of panel regression**

Dependent variable <i>Crude rate migration</i>		
	Fixed effects	p-value
NEET 18 – 35 years	-1.70509***	0.000
D1. Social contributions	2.308756	0.602
D1. Wages	-1.41151	0.505
D1. GDP per capita	17.43189*	0.065
Employment rate	-0.27876*	0.091
Tertiary education 30-34 years	0.043793	0.475
Research and development	-7.78336***	0.000
Risk of poverty 15 – 64 years	-0.35867***	0.005
Intercept	61.81052***	0.000
R within	0.7273	
R between	0.0321	
R overall	0.4536	
F test	21.34 ***	0.000
Rho	0.56934053	
Observations	96	

Note: (\*\*\*) are significant at 1%, (\*\*) are significant at 5%, (\*) are significant at 10%

The results of the regression model for panel data are significant at 1% level of confidence. Also, R is estimated for three levels of variation: overall variation (which shows the variation over both dimensions); between variation (which shows the variation over individuals); within variation (which shows the variation over time). One may observe that R overall is 0.45 which shows that there are many other factors that influence the emigrants number.

The first differential was introduced for social contribution expenditures, wages and GDP because after applying the Wooldrige test of serial correlation (Drukker, 2003), the result indicate that is the alternative hypothesis of the existence of serial correlation is admitted



( $F=15,251$  with  $p\text{-value} = 0.007$ ). The results show that the crude rate migration is not influenced by the first difference of social contributions and wages, but there is a positive influence of GDP per capita over crude rate migration. This can be explained by the lagged effects of the economic growth that are felt by the population. Gross Domestic Product, as an indicator of economic development, it has a directly proportional influence on emigrants.

The results of the fixed effects model with regard to the influence of GDP on migration are in line with the findings of Berlot and Ederveen (2011), who argue that in case the country has a high economic development, people prefer to remain in their countries rather than emigrate, moreover, the respective country attracts immigrants.

People in poverty or with risk of social exclusion tend to migrate in more developed countries in hope of gaining better income and for personal achievement (Goschin & Roman, 2012). Crude rate migration is indirectly proportional for the variables NEET 18-35 years and employment rate.

When establishing indicators and initiating an analysis of migration and research and development from the point of view of factors influencing them, the research and development are considered expenditure, instead of investments. In the medium and long run, research and development become investments that produce long-term benefits in terms of population migration based on the level of qualification in relation to supply and demand on the labour market. As labour market requirements are highly influenced by the learning outcomes that were acquired through the skills/qualification, these expenditures in research and development become investments that lead to the formation of assets.

The model confirms the neoclassical theory regarding migration. It should also be noted that the model can be improved by adding other variables that explain more the variation of migration rates and a larger time span.

### Conclusions

Taking into account the most popular migration theories and in the framework of the Europe 2020 strategy, various determinants that influence people to migrate were analysed. The results from the panel data regression model show that migration is influenced more by risks of exclusion, whether social or economic. Thus, young people not in education, employment or training and people at risk of poverty or social exclusion tend to migrate, these findings confirm the neo-classical theory of migration of low skilled workers.

Moreover, Gross Domestic Product, as an indicator of economic development, has an indirectly proportional influence on emigrants. This can be explained by the fact that if the country has a high economic development, people would rather remain in their countries than emigrate.

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## **APPLICATION OF PROJECT MANAGEMENT METHODS IN THE BID PROCESS TO IMPROVE THE HIT RATE USING THE EXAMPLE OF A PLANT ENGINEERING AND CONSTRUCTION COMPANY**

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### **Abstract**

Application of project management methods has increased dramatically in recent decade. In the sector of international plant engineering and construction, project management focuses on the contract execution. But the main process which initiates the contract award is the competitive bidding process, so the objective of each company is to reduce up-front cost and to increase number of successful bids. The success of bidding can be measured by the hit rate as key performance indicator.

An initial literature review evaluated the current state of knowledge relating to the connection between project management and bid management. The result gives rise to the assumption that the application of project management -methods would also be worthwhile in the phase of competitive bidding. Subsequently 26 bids, prepared by a company in the plant engineering and construction industry, were processed and evaluated with respect to qualify the bidding process and its project management methods.

This research concludes that application of project management methods in the bidding process is a reasonable and sustainable measure for improving project and business success.

### **Keywords**

Competitive bidding, project management, bid management, hit rate, project success.

**JEL Classification: M1, O22, O12**

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### **Introduction**

At the core of any company strategy is the proposal of an attractive offer to the client, which, after being awarded, results in revenues for the offering company. Within the plant engineering and construction sector, the preparation of bids is associated with considerable levels of required resources and thus costs, dependent on the complexity of the project. These costs must be borne by the bidding company and constitute a significant proportion of general company overheads (Girmscheid, 2010, p. 25). One of the measures that support company success is modern project management, as developed, described and also certified

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by several international associations (e.g. PMI, IPMA). The application of project management methods (PM-methods) in business life has increased dramatically in recent decades. Complex social, economic and commercial challenges associated with large investment projects have promoted project management as an important strategic tool, which helps to master these increasing challenges (Fauser, et al., 2015, p. 66), (Patzak & Rattay, 2009, p. 575f).

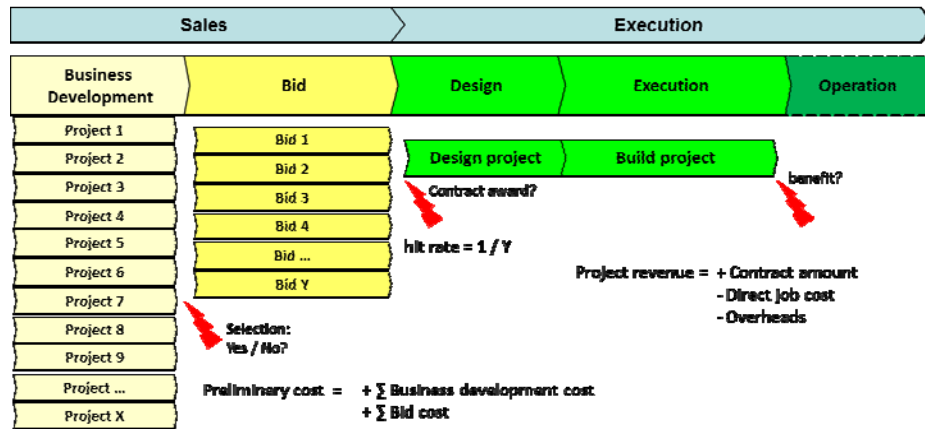
Girmscheidt (2010, p. 9) refers to analysis conducted by ETH Zürich, whereby around 60% of projects with negative project returns (=losses) originate in the bid phase and identifies reasons, including *'[...] insufficient understanding of tender documents, incorrect estimates of resources required, unrecognised technical and contractual risks or the selection of unreliable subcontractors'*. Another 10% of the negative project returns can be traced back to factors that cannot or can barely be influenced and 30% of problems originate in deficient executive management.

Optimising business processes to improve quality and transparency, as well as to comply with the market needs is necessity for sustainable business (Just, et al., 2016, p. 23), (Bejinariu, et al., 2016, p. 30). For the company in plant engineering and construction, the process of bidding (the phase preceding the contract award) is the main decisive, strategic process, because only the contractually valid implementation enables income generation and a commercial livelihood (Geiger & Krüger, 2013, p. 60). Therefore, in order to increase project returns, the bid phase is an important object of consideration for any optimisation efforts, and every company must constantly strive to increase the ratio of the number of contracts awarded to the number of bids (Girmscheid, 2010, p. 25). As such, the present study determined in detail whether the application of PM-methods in the bid phase leads to better economic efficiency in the bid process, in the sense of a higher hit rate. An initial literature review evaluated the current state of knowledge relating to the connection between the application of PM-methods, competitive bidding and bid management. Subsequently, 26 bids prepared by a company in the plant engineering and construction industry between 2002 and 2015 were processed and evaluated with respect to the research question.

### **1. The bid process in international plant engineering and construction**

In general, 'plant engineering and construction' refers to the planning and construction of technical plants, characterised by long-term individual assembly projects in frequently changing locations with a high amount of pre-financing, high contract value, high (and increasing) service share and discontinuity of incoming orders (Theuermann, et al., 2015, p. 1f). In view of the fact that each bid preparation in plant engineering and construction is 'unique' each time, and therefore causes significant expenses, the optimisation of the bid phase is one of the most important requirements in plant engineering and construction (Geiger & Krüger, 2013, p. 83). The bidding company firstly has to reach a decision on which bids to actually prepare, selected from a range of possible project ideas arising from active development of project opportunities or pre-selection of identified project opportunities (Girmscheid, 2010, p. 25f). The suggested approach for prioritising projects according to specific qualitative and quantitative 'key performance indicators' (KPI) by Scheiblich et. al. (2016, p. 104ff) can also be applied to bid projects. The approach first considers a rough pre-selection, then the evaluation of relevant quantitative key data and subsequently the evaluation of a qualitative assessment using a 'scoring method'. This process as part of business development already has an influence on hit rate and on

subsequent contract execution (Kock, et al., 2016, p. 116). In actual business life, often only one of ten submitted bids will actually lead to a contract being awarded (Jakoby, 2012, p. 48), (Lutz, 2006, p. 21). Expertise on how to efficiently prepare bids and ensure they lead to a successful contract is a key competence in plant engineering and construction and is decisive for the economic viability and growth of a company. The following schematic illustration (Figure no. 1) shows the step-by-step selection from a range of project ideas:



**Figure no. 1: From a range of project ideas through to the actual contract processing**  
*Source: authors*

Successful bids need to be correct and complete and correspond to the desires and expectations of the client. A bid must demonstrate clearly to the client that the people who prepared it have worked hard and conscientiously, that the available tender documents have been analysed precisely and that the bid documents have been exactly tailored to this specific request, rather than cobbled together by copying and pasting from other documents (Lewis, 2015, p. 4). As such, expertise and experience in project management is needed.

## 2. Performance indices of the bid process

The success of the bid process is substantially characterised by the number of bids and the resulting contracts awarded (Preisinger, 2015, p. 226ff). The hit rate (Lewis, 2015, p. 58) or 'win rate' (Jaques, 2013, p. 160f) as related to the number of bids is the quotient of 'successful bids' divided by the 'total number of submitted bids' and is represented as a percentage (Kühnapfel, 2014, p. 10), (Meyer, 2011, p. 110):

$$\text{hit rate 1} = \frac{\text{successful bids (contract awarded)}}{\text{total number of submitted bids}} \times 100 \quad (1)$$

If the tender procedure is cancelled by the investor, the hit rate can be adjusted as the total number of submitted bids is reduced by the number of cancelled procedures (Jaques, 2013, p. 161). This is determined as 'hit rate 2' in further text.

There is no universally valid determination of how the hit rate should be calculated, and therefore it is difficult to compare the available information from different companies or

their staff responsible for bids. In practice, it is certainly important that the agreed calculation method is used consistently within a company, in order to be able to determine a negative or positive trend (Jaques, 2013, pp. 147, 162).

### 3. Project management in the bid phase

First of all, it must be judged whether an idea for a bid preparation is project worthy. This will be done according to each company structure e.g. by sales management, responsible key account managers or company executives (Patzak & Rattay, 2009, p. 86).

In addition to considerations of quality, costs and time, the different PM standards have described a number of 'objects of consideration of project management' or 'project dimensions of project management', which are planned and managed by PM-methods. According to IPMA, from the totality of PM-methods the following PM-methods are identified as '*central PM-methods*' (PMA, 2008, p. 56): Project assignment (1), Project objectives (2), Objects of consideration plan – OCP (3), Project environment analysis – PEA (4), Work breakdown structure – WBS (5), Milestone plan (6), Organisation chart (7), Project responsibility matrix (8), Work package specification (9), Bar chart (10), Resource plan (11), Cost plan (12). In the project handbook (PHB), the results of specific applied methods are gathered and constantly updated. As an aggregate document of all project plans for the applied PM-methods, the PHB is also seen as a PM-method (no. 13) in the present study.

Because the bid phases in the area of international plant engineering and construction are generally not routine tasks, but are very comprehensive and time and resource intensive, it is recommended in project management literature to treat these processes as bid projects, and to design them with the corresponding levels of professionalism and efficiency (Jakob, 2013, p. 45), (Burghardt, 2012, p. 57f).

### 4. Project management success vs. business success: 'the operation was successful, but the patient died'

Many bidders see this submission of the bid to the client as the end of the bid phase, because the intensive and often stressful preparation of the required documents is finished, and the next steps will be specified by the client. The client will check and evaluate all submitted bids. Adaptions our amendments by the bidder are no more possible and in public procurement strictly prohibited, but the bidder has to be at clients disposal for further clarification (Girmscheid, 2010, p. 101ff).

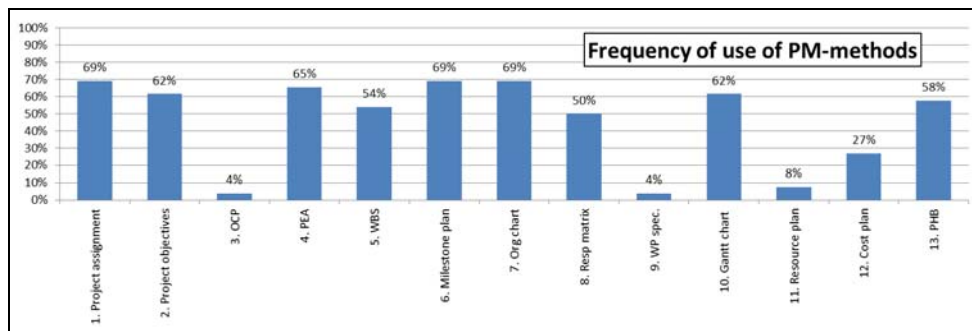
If the contract is actually awarded after all bids have been assessed, then the bid manager and his team will conclude their tasks and transfer all relevant documents and information to the project organisers for the subsequent project (Tweedley, 1995, pp. 30, 133), (Girmscheid, 2010, p. 340). If another bidder or no bidder was awarded the contract, then the overall commercial aim of the bid (the contract award) was not reached. A project close-down phase must nonetheless be initiated. Even if the bid did not result in a contract being awarded, the fulfilment of the project objectives will depend on whether the reasons for failing to win the contract were in the company's sphere of influence (late submission, deficiencies, gaps, misunderstandings etc.) or if they were unforeseeable (Williams, 2016, p. 109), (Heinrich, 2015, p. 70f), (Burghardt, 2012, p. 43f). Increasing quality in project management processes improves success (Just, et al., 2017), but the completion of a bid project must be distinguished in the 'project management success' and the 'business success':

- **‘Project management success’** = project objectives achieved (IPMA, 2006, pp. 16, 40), (PMI , 2013, pp. 21, 35): Was the (bid) project management process concluded successfully? Was the bid process executed efficiently, did it meet the predicted bid costs (= project budget) and stick to the time plan, and was the quality acceptable (free of mistakes, free of unrecoverable errors)?
- **‘Business success’** = contract awarded = ‘hit rate’ = business objective achieved: was the ‘correct’ bid project executed? Was the company aim reached? Or did the client have to end the tender process without an award or cancel the tender process because it emerged that a realisation would be impossible?

**5. Evaluation of case studies**

The company examined in this study is active in international plant engineering and construction. As a full-service provider it offers the design, construction and operation of engineering plants for water supply, wastewater disposal, as well as heat and energy generation.

The examined bids originated in the years between 2002 and 2015 and relate to drinking water treatment plants and wastewater treatment plants. For each bid, it was determined which of the 13 significant PM-methods were applied. In addition, it was noted whether the bid objective was met, namely with respect to **project management success** (the bid was delivered on time, is complete and meets the requirements of the tender) and **business success** (the contract was awarded to the bidder). The following graphic (Figure no. 2) depicts how frequently the individual PM-methods were applied in the 26 case studies.



**Figure no. 2: Frequency of application of individual PM-methods in percent of numbers of case studies**

*Source: according to the study conducted by the authors*

The PM-methods (3) OCP and (9) work package specification were each only used once among the 26 case studies. The PM-method (11) resource plan was applied in only two of the 26 case studies (8%) according to the methodology laid down by the PMA (PMA, 2008, p. 34). The cost plan (12) was also only used in 7 of 26 cases. The expected staff costs were roughly estimated for all bids, but a cost plan and cost controlling in the sense of the PM-method only occurred in the named seven cases.

The following groups were formed to simplify further analysis:



Group nPM: Bids with fewer than five PM-methods applied (10 of 26).  
 Bids within this group were done with no or less expertise in project management.

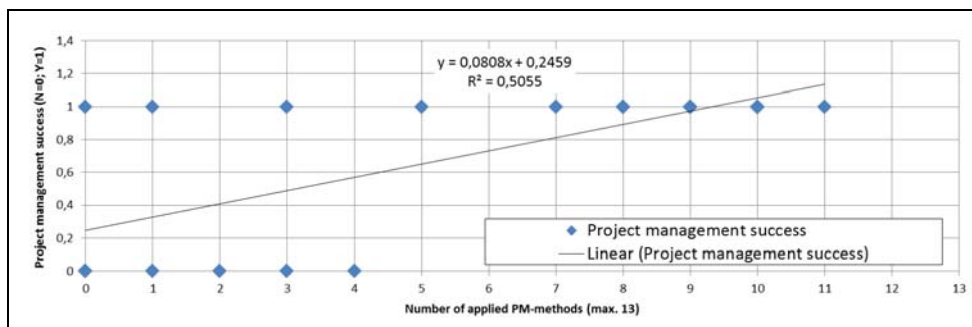
Group yPM: Bids with five or more PM-methods applied (16 of 26).  
 Bids within this group are considered to be managed by project management.

The following graphic (Figure no. 3) shows that in the group yPM (five or more PM-methods), all bids met their project management objective. As such, the project management success in this group is unsurprisingly 100% calculated based on formula (1):

$$\text{Project management success}_{(yPM)} = 16 / (26 - 10) \times 100 = 100\%$$

Among the bids in group nPM (fewer than five PM-methods), only three met the bid objective (30%) and three received the contract award (30%), calculated based on formula (1):

$$\text{Bid management success}_{(nPM)} = 3 / (26 - 16) \times 100 = 30\%$$

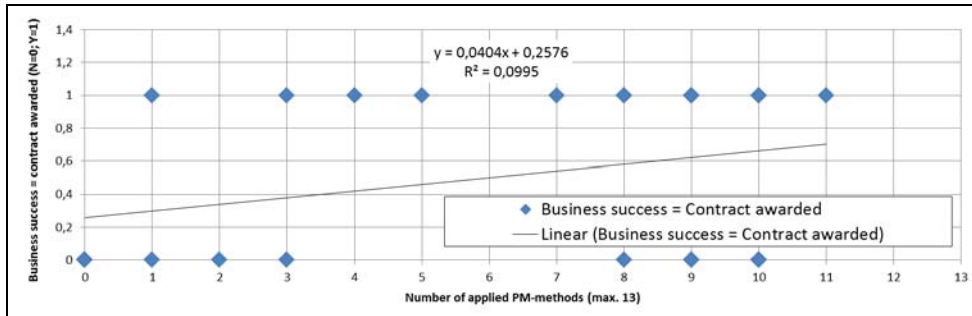


**Figure no. 3: Project management success in relation to the number of applied PM-methods**

*Source: according to the study conducted by the authors*

However, it is notable that in group nPM two bids won the contract even though they had not fully met the bid objectives, which gives rise to the assumption that the competitors were simply even worse or there was luck involved. Conversely, two bids met their bid objectives, but still did not win the contract, which was because the bid price was too high, or rather, one can interpret that the competition was simply better.

The next graphic shows the correlation between the number of applied PM-methods and the contracts awarded (the 'business success'):



**Figure no. 4: Business target 'contract awarded' achieved in correlation with the number of applied PM-methods**

*Source: according to the study conducted by the authors*

The data series initially do not show a clear connection, but the detailed evaluation nonetheless enables an interesting interpretation: in the group yPM (16 bids), the contract was actually awarded in ten cases. Two procedures were cancelled and of the remaining four, three bids were too expensive. The remaining bid was awarded to a competitor, despite a lower price. A related appeal failed due to formal obstacles. The hit rate is therefore as follows:

$$\begin{aligned} \text{hit rate 1}_{(yPM)} &= 10 / 16 \times 100 = 63\% \\ \text{hit rate 2}_{(yPM)} &= 10 / 14 \times 100 = 71\% \end{aligned}$$

In the groups nPM (10 bids), the contract was awarded in three cases, one tender process was cancelled and the remaining six bids were too expensive. The hit rate is therefore as follows:

$$\begin{aligned} \text{hit rate 1}_{(nPM)} &= 3 / 10 \times 100 = 30\% \\ \text{hit rate 2}_{(nPM)} &= 3 / 9 \times 100 = 33\% \end{aligned}$$

Interpretation of the authors: although the actual rate of contract awards is dependent on many external influences, in group yPM an increased hit rate from 33% to 71% could be determined, outlining that the application of PM-methods can reduce or even eliminated internal company weaknesses.

### Conclusion

From a quantitative perspective, for comparable companies in plant engineering and construction nearly a doubling of the hit rate (from 33% to 71%) can be assumed, whereby no universally valid prediction can be derived, because the companies are too diverse.

The differentiation between business success and project management success in the present study is based on the fact that in reality, the actual awarding of contracts is heavily dependent on competitors and clients. Even if the bid team submits a technically, commercially and legally flawless bid and perfectly meets its project objectives, a competitor's bid could be less expensive and be qualitatively sufficient for the client.

The results of this study can also be interpreted as follows in the sense of the motivation of the bid team: by applying PM-methods in the bid phase, the bid team can triple the project

management success (from 30% to 100%) and at the same time double the hit rate (from 33% to 71%).

In general, the present study has difficulty in transferring the conclusions to other companies, because the quality of the considered processes is heavily influenced by the persons involved and their interpersonal skills. The possible effects of the PM-methods are hard to compare, since the repeatability of a measure is not possible in practice. The alternative to one method can never be executed in the exact same conditions. The application of a method changes the 'system' and it is not possible to 'reset' to the initial situation, since experiences with the previous attempt cannot be 'erased'.

However, the positive indications are so clear that the application of PM-methods in the bid process must be recommended from a qualitative perspective.

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## CONSUMER PROTECTION IN THE CONTEXT OF COMPETITION AND GLOBALIZATION

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### **Abstract**

The orientation towards the consumer and its welfare is a developing trend in many business sectors as well as in the field of elaborating policies at global level. The objective of the present article is to analyze if consumer protection is ensured on the globalized market and which is the role of competition in strengthening consumer welfare in a globalized business environment. The article analyzes if competition rules, which aim to support consumer protection, are unitary at global level and if globalization has an influence on consumer protection worldwide. The paper presents the American view versus the European view towards the issue of consumer protection in a globalized business environment. The article shows which role does the “more economic approach” theory play in this context. It also illustrates the challenges in ensuring consumer protection given the context of globalization and of multinational companies as global players.

In order to deal with the abovementioned key-aspects a multidisciplinary research method will be used, combining elements of economic analysis and of legal analysis. The method is appropriate, as the topic is interdisciplinary. Furthermore, a comparative method will be used, presenting the American view versus the European view towards the analyzed aspects. Qualitative methods of assessment will be used. Case studies will provide examples and will enlighten the practical aspects of the analyzed theoretical approaches and concepts.

Consumer oriented approaches are part of business strategies of all the international companies that are significant global players. Competition rules do therefore play an important role in drafting a harmonized framework for consumer protection and consumer welfare around the world, supporting the trend to focus on the consumer and its welfare.

Competition rules are aimed to serve the consumer and to ensure consumer protection and consumer welfare in the context of globalization.

**Keywords:** consumer protection, competition, globalization, consumer welfare.

**JEL Classification:** D18, D11, F60, K21, L40, M10, M16, M21

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### **Introduction**

Globalization is a trend that has implications both on companies and on consumers, having an influence on the behavior of these market actors. From slogans like “Think global, act local” to the change of paradigm into “Think local, act global”, globalization developed to glocalization (a term used by multinational companies like Sony and by other Japanese companies) and the business strategies nowadays take into consideration both global and local dimensions of the business environment. But the question is how does the globalization process affect consumer protection. It is important to find out if consumers are protected, given the context of globalization and if multinational companies have so much power that they decide the degree of consumer protection they apply. Another aspect to be analyzed is the role of competition in this globalized business environment. It is important to deal with the issue if competition serves the consumer and how is the interest in protecting the consumer reflected in concrete measures and actions at European level or at global level.

The focus on the consumer is an answer to the question “What do citizens of the European Union gain from the project of the European Union?”. The European Union has often been criticized that it only takes into consideration economic criteria in terms of profitability when drafting a project. The answer to the abovementioned question is consumer protection and the orientation towards the consumer.

In this context, it is important to analyze which concrete measures are the expression of consumer protection. It is interesting to compare which is the American view versus the European view towards consumer protection through functional globalized competition and to find out which similarities and differences are between these approaches.

Institutions at the level of the European Union are concerned about the issue of consumer protection, as this is a cross-section topic. In the energy field, the European Commission adopted on the 30<sup>th</sup> November 2016 the “Clean Energy for All Europeans” package, which aims to modernize the energy sector at the level of the European Union and has a clear focus on the consumer and on consumer benefits.

Being an interdisciplinary field, consumer protection builds a bridge between economic issues and legal issues related to competition and consumer protection through fair competition, a connection that is as well illustrated in the theory of the “more economic approach” used when assessing competition law aspects. The literature deals with the aspect of “the more economic approach” and with its perception over time. About ten years ago, it seemed a very modern trend among the institutions of the European Union, but now this trend has changed, as some important Member States, such as Germany, did not agree with this view, especially when assessing competition law issues. The cooperation between economists and lawyers proved to be difficult from this perspective, as illustrated by McNutt (2005, p. XIII). What everybody agrees upon is that cartels are agreements that harm the consumer, acting against consumer protection (O’Kane, 2009). Previous studies and works related to the topic of consumer protection in the context of globalization and of competition have been consulted, for example McNutt (2005), O’Kane (2009), Albers (2017) and Möller (2008). The article is in line with previous research. It brings a new perspective which combines legal aspects and economic issues regarding the analyzed topic, providing a cross-section, multidisciplinary analysis.

The goal of the present article is to research if consumer protection is ensured on the globalized market, to analyze which is the role of competition in strengthening consumer welfare in a globalized business environment, to debate if competition rules, which aim to

support consumer protection, are unitary at global level, to discuss if globalization has an influence on consumer protection worldwide, to illustrate the American view versus the European view towards the issue of consumer protection in a globalized business environment, to present the role of the “more economic approach” theory in this context, the concrete measures that are the expression of consumer protection and the challenges in ensuring consumer protection, given the context of globalization and of multinational companies as global players.

### **Review of the scientific literature**

The literature reflects the idea that the protection of competition on the market has the role to ensure consumer protection and consumer welfare, as shown by Mäger (2006, p. 2). By protecting competition, the consumer gets fair prices and products of a better quality, so competition contributes in an important manner to consumer protection and to consumer welfare. Agreements between the competitors, which normally are forbidden because they distort competition, are permitted if these agreements have positive effects on the consumer, according to Möller (2008, p. 157). In other words, the positive effects on the consumer are more important than the negative effects on competition. The positive effects are reflected in improved efficiency due to lower production costs, a better use of the capacities, product variety and a wider range of products offered to the consumer, improved quality of products and services offered to the consumer, opening up of new markets, improved economic efficiency through lower transaction costs or distribution costs, more selection options offered to the consumer, support of innovation and improved research and development, as illustrated by Mäger (2006, p. 27). According to Möller (2008, p. 161) these advantages bring an improvement of the products in order to meet consumer preferences, a better distribution of the products, so that they reach the consumer easier and an improvement of the technical or economic progress and development. As a conclusion, according to the studied literature, competition has the role of providing a large range of choices of products and services to the consumer and to ensure an optimal quality level at low prices for these products and services (McNutt, 2005, p. XVII). Another criterion in order to assess the positive effects on the consumer is if consumers have a fair share of the resulting benefit (article 101 paragraph 3 of the Treaty for the Functioning of the European Union). This means in the acceptance of the European Commission that the positive effects of the agreement between competitors on the consumer are more important than the negative effects of the agreement on competition and therefore the positive effects compensate the negative effects (Mäger, 2006, p. 27).

The connection between competition issues and the consumer protection is illustrated in the literature in the theory of the “more economic approach”. The literature deals with the aspect of “the more economic approach” and with its perception over time. About ten years ago, “the more economic approach” was seen as a new doctrine with American influence used by the European Commission for the assessment of competition related issues. According to the “more economic approach” the economic effects of agreements between competitors should be taken into consideration from an economic perspective when assessing competition related issues, as shown by Möller (2008, p. 34). This approach suggests to consider the effects on the consumer when assessing competition issues, for instance to consider achieved improvements in terms of efficiency despite the restriction on competition related to the agreement (Möller, 2008, p. 38). Furthermore, the “more economic approach” emphasizes not only the idea of considering efficiency in competition

issues, but to use complex economic methods in competition proceedings, as presented by Albers (2006). This approach could ensure consumer welfare according to Möller (2008, p. 38).

Although the trend of applying the “more economic approach” was modern about ten years ago especially within the European Union (being supported by Mario Monti, who was a member of the European Commission in charge with the field of the internal market and later with the field of competition), nowadays this trend has changed, as some Member States did not agree with this view. The cooperation between economists and lawyers proved to be difficult from this perspective, as illustrated by McNutt (2005, p. XIII). Lawyers want predictability and general provisions to be applied for all situations in order to ensure this predictability of the law. Economists do not agree with this “one size fits all” concept and want an individual assessment of each particular situation. This is on the other hand time-consuming and it is possible to have different results for similar situations, due to the evaluator of the case and to the subjectivity of the evaluation. This is why lawyers are skeptical about accepting to apply “the more economic approach” when assessing competition issues. What economists as well as lawyers agree upon, is that cartels are agreements that harm the consumer, acting against consumer protection, an idea that appears in the work of O’Kane (2009).

The article is in line with previous research, for example McNutt (2005), O’Kane (2009), Albers (2017), Möller (2008).

### **Research topics and research methodology**

Globalization is a phenomenon that has affected all business sectors. Due to this evolution, multinational companies gained power and influence in our society. Being so powerful, multinational companies often act as power poles on the market, building an oligopolistic market structure. Perfect markets with perfect competition and symmetrical access to information exist only in books, in real life all the markets are imperfect, oligopolistic markets. Given this situation, it is interesting to research to what extent multinational companies put consumer protection among their values. An important research question is if powerful companies are interested only in profit or if people do count as well. The financial crisis gave us a sad answer to this question.

The present paper will deal with the research topics of consumer protection ensured on the globalized market, it will analyze which is the role of competition in strengthening consumer welfare in a globalized business environment, it will debate if competition rules, which aim to support consumer protection, are unitary at global level and it will discuss if globalization has an influence on consumer protection worldwide. The article will illustrate the American view versus the European view towards the issue of consumer protection in a globalized business environment, to present the role of the “more economic approach” theory in this context, the concrete measures that are the expression of consumer protection and the challenges in ensuring consumer protection, given the context of globalization and of multinational companies as global players.

The present paper will analyze how the studied literature reflects the research topics.

In order to find answers to the research questions related to consumer protection and globalized competition case studies will be presented, which illustrate concrete aspects of theoretical concepts.

Furthermore, legal provisions and documents related to the Law of the European Union and to consumer protection (Regulations of the European Union, Directives, Decisions of the



Court of Justice of the European Union, case law of the Court of Justice of the European Union) will be analyzed. Relevant sector studies (for instance in the field of competition) will be as well used.

References to concepts and theories, such as the “more economic approach” or the Competition Theory will be used.

A multidisciplinary research method will be used in order to find answers to the research questions. This multidisciplinary approach provides the possibility to better understand complex market situations, which are related to economic aspects and to legal issues. This way the paper gives a better understanding of the analyzed issues, from various perspectives, by enlightening the perspective of Law and Economics. According to Dinu, Săvoiu and Dabija (2016, p. 34) Law and Economics belong to econosciences. Market situations are complex situations, where economic factors and legal factors act together and cannot be clearly separated. It is difficult to establish clear cause-effect relations, as a multitude of factors act together and have a certain effect as a consequence.

The paper uses a comparative approach with an international perspective, presenting the American view and the European view towards the researched topics.

As the research topic has a high degree of interdisciplinarity, qualitative methods will be used. Many economic papers focus on the quantitative methods and they neglect the qualitative methods. As the subject is related to competition law, qualitative methods (for instance the teleological interpretation) are appropriate in order to research the topics.

### **Results and discussion**

Consumer protection is ensured on the globalized market. Competition has a key-role in ensuring consumer protection and consumer welfare in a globalized business environment. This is why the protection of competition is important in order to ensure consumer protection and consumer welfare.

There is a tendency of harmonizing competition rules. At the level of the European Union, we have common competition rules, so there is a harmonized European competition framework. European competition rules are inspired by American Antitrust law, which has a tradition of more than 100 years. There are similarities between the European and the American competition framework, both aiming to ensure consumer protection and consumer welfare.

Consumer protection is important both in American and in European view, but it is achieved in different ways. In the American view, there is no intervention on the market (like in Adam Smith’s theory of the invisible hand), while in Europe there are regulations aiming to support competition and thus consumer welfare. The role of the citizen in protecting competition is more important in America, while in Europe competition authorities (the European Commission at the level of the European Union and the national competition authorities at national level) have this task.

The “more economic approach” ensures a convergence with the American Antitrust Law, which is important in the era of multinational companies and of global competition. In spite of this, it generates conflicts between economists and lawyers due to the individual assessment of situations, which does not permit predictability of the law and security of the law.

Globalization has an influence on consumer protection worldwide due to the fact that multinational companies are a global presence and act as global players. Multinational corporations include consumer protection among their values and include it in their

business strategy. This approach is an expression of consumer protection. Institutions at the level of the European Union as well are concerned about the issue of consumer protection and include this issue in their measures when drafting policies in various fields, like competition, energy, the banking and finance sector.

Given the context of globalization and of multinational companies as global players, ensuring consumer protection is related to challenges. Such a challenge is the fact that multinational corporations gain much power worldwide and they can abuse of this market power. Having a powerful position, it is possible that at some point they do not observe consumer protection and consumer welfare anymore, using strategies which on the long term bring disadvantages to the consumer, such as predatory pricing.

Regarding the harmonization of competition rules in the globalized environment, the European Competition Law is influenced by American Antitrust Law, so that there are similarities between competition rules in the United States of America and in Europe. The American view and the European view have in common the fact that they both focus on consumer protection and on consumer welfare. In the American view, consumers have a proactive role in protecting competition. This is a difference in the approach in the American view versus the European view. But both views agree on the consumer-oriented approach and on the role of competition in ensuring consumer welfare. Maybe the “more economic approach” as a consumer-oriented approach might function like a bridge between the American view and the European view towards consumer protection and maybe it can bring economists and lawyers together in order to find a common agreed solution.

The behavior of companies on the market may have some positive and some negative effects. An interesting point to be discussed is how to find a balance between them, in order to evaluate which effects prevail. Situations in which the consumer has price advantages, but the market structure suffers, are not acceptable, as demonstrated in the case Dutch T-Mobile (Case C-8/08 - T-Mobile), which deals with a concerted practice, a forbidden exchange of strategic information between market participants. The involved companies used the argument that the effects were positive for the consumers, as the prices were reduced, but this was not accepted by the Court of Justice of the European Union, because any exchange of such information is forbidden, as it has a negative effect on competition (Case C-8/08 - T-Mobile). It does not matter if there are positive effects on the final consumer. The American view towards this topic is that the market itself will find its equilibrium and that there is no need to interfere with regulations in this regard.

Related to the role of multinational companies in this context, an interesting discussion point is if consumers feel protected by the policies of multinational companies or if they rather trust local companies. Regarding the challenges related to consumer protection in a globalized business environment, one might be the fact that multinational companies gain much power and can then abuse of this market power. One example is the predatory pricing strategy used by powerful multinational companies, which are global players. In a first phase, these companies offer products at very low prices in order to gain customers and to eliminate competitors from the market, even if they have losses due to the very low prices. After eliminating competitors from the market, the company increases the prices. Once a behavior is established, it will be difficult for the consumer to renounce to his habits and he will be ready to pay the increased prices, as he has no other choice. In this situation, the consumer has short term benefits by paying low prices at the beginning, but in the long term, he will only have disadvantages. In this case, the long-term consequences of a market behavior on consumers have to be considered in order to ensure consumer protection. An

example of the use of this strategy is illustrated in the case of Akzo (Case C-550/07 P – Akzo). With regard to the strategy of predatory pricing, the European view is very strict in sanctioning predatory pricing, while the American view is not so strict.

### Conclusions

Consumer protection is a topic of great interest in the context of globalization and of globalized competition. Competition plays an important role in ensuring consumer protection and consumer welfare at global level. The focus on the consumer is explained by the intention to give an answer to the question about which are the benefits of consumers in being part of the European Union. This orientation is a cross section issue, as it influences for instance competition policies, energy policies, banking policies, so it is reflected in several fields. It is in line with the new ongoing trend to give something back to society and not to think only in terms of economic gain and economic parameters, an approach which is of great interest both in the United States of America and in Europe. Following this trend, it is important to care about the consumers that build this society and to wish to offer them protection. Being a topic of great interest and with a global dimension, it is important to deal with it in scientific papers.

The present article is in line with previous research, for example McNutt (2005), O’Kane (2009), Albers (2017) and Möller (2008), further developing it. The present paper brings a new perspective which combines legal aspects and economic issues regarding the analyzed topic, providing a cross-section, multidisciplinary analysis. The legal perspective is important because many issues related to consumer protection in the context of globalized competition find a concrete expression in competition cases, discussed in front of European institutions, for example at the Court of Justice of the European Union. It provides as well a perspective on how the role of the consumer will develop in the future in the context of globalization and competition. This contribution is important because the field is dynamic and it will further develop. Further studies will for sure be performed in this sector, as they will be necessary. The research results can be used for these future studies and for future research in the field of consumer protection and consumer welfare and they can be as well applied when drafting strategies or consumer oriented policies in companies or in institutions, so extensions of the work are possible and needed.

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## **MEASURES AND ACTIVITIES FOR DEVELOPMENT OF INNOVATIVE RURAL TOURISM IN ROMANIA**

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### **Abstract**

Any growth is based on certain innovative components, as this also can gain a competitive advantage in a sustainable development of a market that is in permanent evolution. Tourism represents one of the most important sectors, having important implications in socio-economic and in demographic development any country. Tourism and all its forms, is in a direct positive relationship with the social, economic and demographic component of rural areas. This research analyzes the evolution of the number of people employed in the period 2005-2015 and the number of accommodations in specific environmental areas, such as boarding-type accommodation units, by processing the data provided by the National Institute of Statistics of Romania. Supporting and developing new business in the non-agriculture field, like developing the rural tourism, training and retraining of the human resources in order to incorporate their labor on the market of tourism by increasing the absorption of EU funds, and by promoting and supporting volunteer tourism, represent two solutions of rural development in a prosperous socio-economic framework.

**Keywords:** Rural tourism, Innovation, Development, Human resources, Romania.

**JEL Classification:** F63, M21, O15, Q01, Z32.

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### **Introduction**

The European Union has become one of the most important tourist attraction, but moreover one which is considering one of the most important innovation components that underlies the development of tourism sector, with constantly high quality tourism services. Also, in European Union there are certain countries that are still in development and expansion and in which the innovation component is in its infancy compared to already developed countries in the EU.

In Romania it is very true that this component of research and development and the innovation component it is just at the beginning, but our country know a potentially important development in terms of tourism resources and also in terms of potential

development of business. Romania has significant natural and human resources, which makes it a country with great development potential in terms of tourism.

An important niche that should be considered to be explored is tourism from rural areas called rural tourism, with all its forms and also agro tourism and ecotourism. The advantages of these forms of tourism are many, including: travel with much lower prices, multiple possibilities of leisure, participating in agricultural activities or handicraft, hospitality.

According to the 2011 census about 44.80% of the population is located in rural zones. In these rural zones the standard of living is very low and the education level is also low, and the main activity of these people from rural areas is still agriculture. These problems negatively influence the social sector, even demographic economy.

### **Literature review**

Rural tourism has undergone many definitions over time. It is a concept, a system of all tourist activities undertaken in rural zones (Nistoreanu, 2008).

UNWTO (World Tourism Organization) said that rural tourism includes the development of touristic well organized activities, developed and implemented in rural areas by people residing in rural areas, by harnessing to all opportunities for tourism such as natural, human, cultural resources, including even the accommodation units, the boarding farms and agricultural holdings (Tabără-Amânar et al., 2012).

All these effects have positive implications in the social, economic, cultural and environmental, and can positively affect the entire community life in rural areas (Brad et al., 2015).

People working in rural tourism or any form of tourism in this sector, should have minimal knowledge about the start, setting up and running a business, on conditions and criteria for credit or obtain a financing for such a business, about the minimum conditions accomplish a unit structure with functions of tourist accommodation on tourism activity, with the ultimate objective, socio-economic prosperity of a business in rural tourism.

The tourism in rural zones is represented in Romania by SMEs, which are most often family business. In this case the component of research and development and also the innovation component is not taken in consideration, most times, these people who run businesses in rural tourism, do not know what the innovation component requires. Also, these SMEs do not have large financial resources to allocate budget for developing the innovation, and prefer to follow teachings practiced since ancient times, teachings from father to son (Petroman et al., 2010).

Lately, more and more companies have turned their attention in supporting and developing innovative solutions for the management component, neglecting supporting and developing innovative solutions in the tourism component, where tourists began to shift and appreciate more and more quality products and services, even if they involve higher costs (Ciolac et. al., 2013).

### **Methodology**

This research provides an analysis of the evolution of tourism in Romania, in rural zones, in the period 2005-2015, during which, it had been considered both the pre-accession period and the time of the accession to the European Union. The data utilized were collected by the National Institute of Statistics regarding the number of units with functions of tourist accommodation and boarding-house, and also the number of people employed in tourism,

in rural zones. In rural areas, the prevailing form of tourism is agro tourism and the main unit with functions of tourist accommodation is the boarding-house. Through this research we analyzed the evolution over the decade 2005-2015 of the number of rural boarding houses evolution in Romania, to identify and propose real opportunities for sustaining and developing the rural area.

**Results and discussions**

Rural tourism is an attraction for foreign tourists, because of their possibility to explore new rural environments, clean and quiet, with a lot of traditions.

The units with functions of tourist accommodation structure and human resources are one of the most important agents in the development of tourism in rural zones. They are all too important due to the rural tourism concept, important in cultivating a positive mindset among others to explore the countryside and which together with natural tourist resources available, is able to successfully promote these rural areas.

Thus, in Romania, it is observed that during the analyzed number of structures with functions of tourist accommodation, such boarding-house increased by 100.62%, from 956 in 2005 to a total agro pension of 1918 in 2015.

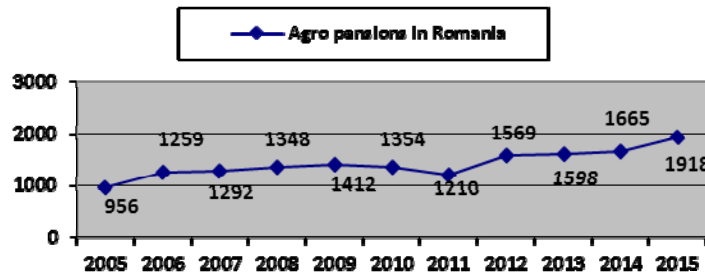


Figure no.1: Agro pensions in Romania

Source: The National Institute of Statistics of Romania

In South-East Region of Romania, it is observed that during the analyzed number of structures with functions of tourist accommodation such boarding-house fell 4.71% from 85 agro pensions in 2005 to a total of 81 agro pensions in 2015. The greatest increase in terms of the boarding number was recorded in agro pensions in the period 2005-2010 when there was a 22.35% increase.

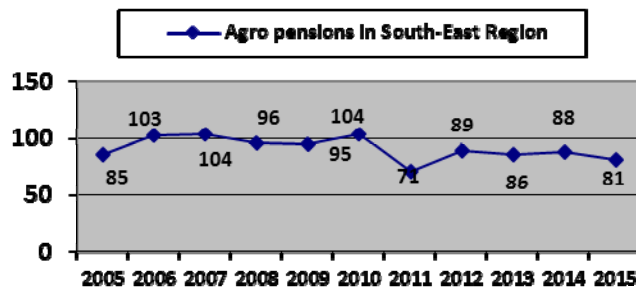


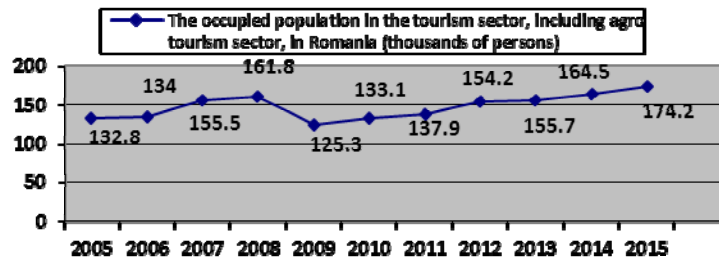
Figure no.2: Agro pensions in South-East Region

Source: The National Institute of Statistics of Romania

In 2011 it was registered both nationally and at the level of South-East Development Region, the drastic decline in the number of agro-boarding houses. Nationally, the number of boarding-houses decreased by 10.64% compared to 2010, while in the South East Development Region, the number of boarding-houses fell 31.74%. This decrease is attributed to the financial crisis that took place in Romania, which has reduced both local and foreign investments and the closure of existing agro pensions.

Also, other causes of such sharp decrease can be attributed to the measures taken by the government, which ended with the closure of many SMEs with underdeveloped transport infrastructure and low motivation of human resources. All these causes are directly affecting the quality of tourism services and automatically influence the consumer's behavior.

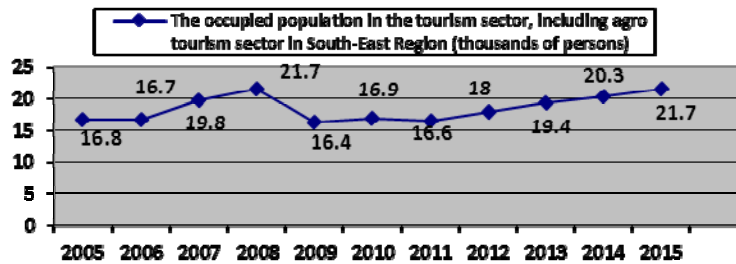
Since 2012, as you can see, it has been recorded an increase nationally with 29.66% and in the South East Development Region an increase by 25.35%



**Figure no. 3: The occupied population in the tourism sector, including agro tourism sector in Romania (thousands of person)**

*Source: The National Institute of Statistics of Romania*

In terms of the population occupied in Southeast Region, there was an increase of 29.16% of the working population, increasing from a value of 16.800 people in 2005 to a value of 21.700 people in 2015. The most significant drop is recorded in accordance with the nationally decrease in 2009, the number of people employed in the tourism sector registering a decrease of 24.43%, thereby reducing the value of 21.700 people in 2008, to a value of only 16.400 people in 2009.



**Figure no.4: The occupied population in the tourism sector, including agro tourism sector in South-East Region (thousands of person)**

*Source: Data processed by the National Institute of Statistics of Romania*



Analyzing statistical indicators presented above, one can see a general increase both nationally and in the region of South-East development, evolution that has been recorded due to the integration of Romania into the European Union, compared with the pre-accession period, due to main national projects carried out with human resources, projects with European funding that encouraged both investors in certain priority sectors such as tourism, and also agro-tourism, observing thus the increasing of the number of agro-pensions in this period, with effects in creating new jobs in the training of the human resources in order to incorporate their labor on the market, projects implemented in the first financial year, projects such as the Sectorial Operational Program Human resources Development 2007-2013 (SOP HRD), The National Program for Rural Development 2007-2013 (RDP) 2007-2013 Regional Operational program (ROP), etc.

In South-East Region there has been an increase proportional to the increase recorded nationally in terms of the number of boarding-house because of low absorption of EU funds, bureaucracy demanded by government officials' management and tax matters that negatively influenced the evolution.

### **Innovative measures and activities to support and develop tourism services**

Romania has a significant potential for socio-economic development in terms of exploitation of the tourism sector in rural zones and should be supported and developed in order to increase competitiveness on the European market, in order to attract a larger number of tourists. Thus the present research we have identified two innovative measures and activities for support and development of services in rural tourism, like:

- increasing the absorption rate of EU funds in the new budget of 2014-2020;
- sustaining and promoting the tourism voluntary practice.

Volunteer tourism implies the possibility of traveling in another country of some persons that have accommodation and meals provided during such a stay, attending instead to conduct agricultural activities or handicraft for the undertaken host or participate in activities of preparing and serving meals for other visitors. These owners of guesthouses and hotels are exempted from certain salary expenses of certain persons, and in exchange for accommodation and meals provided; receive free labor through voluntary agreement in the field of tourism. Western Europe successfully practices this type of tourism and attracts more and more tourists by this measure and innovative activity. The volunteers and tourists benefit from holidays and free rides in exchange for the provision of unpaid services.

They were identified two innovative measures and activities, which can help develop this niche. For people living in rural areas of Romania, this form of practice of rural tourist services can be very beneficial in order to attract a large number of tourists, eager to meet new environments, cultures, traditions and customs that in exchange for insurance of accommodation and meals, may directly participate in agricultural activities and crafts developed by farmers or hosts who practice this form of tourism, benefiting from free labor and also promote rural tourism in the area.

By this method and innovative measure, those working in the field of tourism in rural areas in Romania, benefit from some marketing and free advertising on the site, of the culture and traditions, as tourists voluntary can spread news of such practices and news on such a place where tourism is developed, both among friends and acquaintances, via social media channels, which are the most important these being the most used free advertising and promotion channels now. By this innovative measure, a rural tourism entrepreneur can create a brand which is important in tourism. .

The second solution and the most important is the growth of European funds absorption at the national level. Romania must have a clear strategy to absorb the European funds in the last fiscal year 2014-2020, and must learn from the positive experiences and also the negative budgetary year 2007-2013 to bureaucratize absorption of European funds, to increase ownership and timeliness of payment and reimbursement of expenses for beneficiaries of European funds simplify accessing them and increase their absorption rate.

The most important operational programs for accessing European funds in tourism and agro tourism are: The Human Capital Operational Program 2014-2020 and The National Program for Rural Development 2014-2020 (Table No.1).

**Table no. 1: Operational programs for the European funds in tourism and agro tourism**

<b>Program</b>	<b>Measure</b>	<b>Total amount allocated</b>	<b>Specific objectives</b>
<b>Human Capital Operational Program 2014-2020</b>	<b>Priority Axis 1 - Youth Employment Initiative</b>	*230.693.510 Euro	* Increasing the employment of young Neets unemployed aged 16-24 years registered with the Public Employment Service and residing in the eligible regions (Central, South-East and South Muntenia) *Improving skills, acquired in non-formal and informal system of Neets unemployed young people aged 16-24 years residing in the eligible regions (Central, South-East and South Muntenia)
<b>Human Capital Operational Program 2014-2020</b>	<b>Priority Axis 2 - Improving the situation of young people Neets category</b>	*408.572.233 Euro for the less developed regions and *18.701.987 Euro for the Bucharest-Ilfov	* Increasing the employment of young Neets unemployed aged 16-24 years registered with the Public Employment Service, residing in the eligible regions (Bucharest-Ilfov, North-East, North-West, South-West Oltenia) * Improving skills, including assessment and certification of skills acquired in a non-formal and informal youth Neets unemployed aged 16-24 years registered with the Public Employment Service, residing in the eligible regions (Bucharest-Ilfov, North East, North-West, South-West Oltenia) * Increasing number of young Neets inactive registered with the Public Employment Service
<b>Human Capital Operational Program 2014-2020</b>	<b>Priority Axis 3 - Jobs for all</b>	*1.270.959.911 Euros for less developed regions and *24.853.622 Euro for the Bucharest-Ilfov	* Specific objective targeted by this investment priority is to improve the knowledge / skills / aptitudes related economic sectors / areas identified under NAS and SNCDI employees.
<b>Human Capital Operational Program 2014-2020</b>	<b>Priority Axis 4 - Social inclusion and combating poverty</b>	*1.047.023.965 Euros for less developed regions and	* Reducing the number of people at risk of poverty and social exclusion of marginalized communities in which there is a minority of rome population

		*63.168.893 Euro for the Bucharest-Ilfov	by implementing integrated measures * Reducing the number of people at risk of poverty and social exclusion of marginalized communities (non-rome), by implementing integrated measures * Reducing the number of persons belonging to vulnerable groups out of the situation of vulnerability by providing social services / medical / socio-professional / vocational training etc. for the specific needs for socio-professional integration
<b>National Program for Rural Development 2014-2020</b>	<b>Sub-measure 6.2 - Support for the establishment of non-agricultural activities in rural areas</b>	*70,000 Euro / project for production activities, medical services, veterinary and agro tourism	* Creation of new non-agricultural activities, especially for small farmers and their families and generally for small entrepreneurs in rural areas; * Diversification of the rural economy by increasing the number of micro and small enterprises in the non-agricultural development of services and creating jobs in rural areas; * Encouraging the maintenance and development of traditional activities.
<b>National Program for Rural Development 2014-2020</b>	<b>Sub-measure 6.4 - Investments in creation and development of non-agricultural activities</b>	*200.000 Euro / beneficiary in three years tax project where production activities, medical services, veterinary and agro tourism	*Stimulating business in the area, contributing to an increase in non-agricultural activities carried out in rural areas; *Developing existing non-agricultural activities;  *Creating jobs, increase of rural income and reducing of disparities between rural and urban;

Source: Structural funds and investment 2014-2020

For the budgetary period 2014-2020 we have identified and proposed for the development of tourism in rural zones the accessing the HCPO (Human Capital Operational Program), Priority 1, Priority 2 and Priority 3 which aims to support human resources development.

Under Priority Axis 1 and under Priority Axis the Neets' category are proposed as eligible assets, vocational guidance and counseling of young Neets (Not in Education, Employment or Training) access to training programs for them, apprenticeships, internships, assessment and certification of skills and competences acquired both in an informal system as well as formal, mediation server and job placement. Under Priority Axis 3 - Jobs for All: aims to improve the knowledge, skills and abilities related to economic sectors and areas identified under CNS employees, and encouraging employers to organize learning programs at work in priority areas under CNS. In the CNS (National Strategy for Competitiveness 2014-2020), we find among economic sectors with potential for smart specialization, tourism and ecotourism sectors which have an important economic role and influence on the growth rate of employment in the Romania. Priority 4 - Social inclusion and combating poverty aims to reduce the number of people at risk of poverty and exclusion of marginalized communities, focusing on roma people by implementing integrated measures, including in tourism.

The development of tourism can also be conducted through the National Rural Development Plan 2014-2020, by accessing two sub-measures: The sub-measure 6.2:

Support for the creation of non-agricultural activities in rural areas and the sub-measure 6.4: Investments in creation and development of non-agricultural activities.

In order for the absorption of these European funds to grow there must be a peace policy in Romania, to reduce the level of bureaucracy, reduce the level of corruption in European funds, to increase the degree of transparency of the process of evaluation of the projects submitted, and to meet the payment terms or repayment made by authorities' management. By supporting human resources development in the tourism sector will directly increase the competitiveness of Romania at the European level, thus increasing the absorption of EU funds. It needs to be a clear and assumed strategy by any government at the head of Romania for sustainable competitive micro-economy and macro-economy.

### **Conclusions**

Romania is a country in full development, which was hit by changes among governments in power, thus registering negative effects at the socio-economic level, population reduction, migration of population, lowering of levels of living.

The economic crisis in Romania was also felt and had as results the loss of jobs for many people, closure and bankruptcy of companies. As a result of these problems, Romania must identify niche segments for development, with significant potential for recovery in terms of socio-economic development and such an operating segment with great potential is rural tourism and agro tourism.

By analyzing statistical indicators offered by the National Institute of Statistics of Romania we were able to indicate that the number of accommodations such agro-boarding increased during the analyzed nationally, while the SDR-East was declined.

In 2011 year there was the drastic decrease in the number of accommodation units in Romania and in the South-East region. This drastic decrease was due to the fact of negative effects of the economic crisis and halting investments in the agro sector.

Also, in the analyzed period it can be seen as well as nationally and in the South-East region, that is has been an increase into the number of people employed in the tourism sector, including agro-tourism, and the only year in which it has been experienced a sharp decline was 2009.

These innovative measures and activities have been identified and proposed as a result of the tendency of consumers (tourists), constantly evolving, which tend to focus on high quality now, even if the cost is higher. Human resources working in tourism are the main link between tourism services accessed by tourists and visitors who benefit from these services and their permanent development and qualification is a real need for harmonious development and competitive rural tourism sector in Romania.

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## DISCRIMINATION IN LEADERSHIP: MYTH OR REALITY!?

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### **Abstract**

The development of the society has been marked by the relation between males and females, by the individual evolution and also by their interaction. Although, presently, one would often hear about “the equality between genders”, there still are countries in which the opportunities for women and men are different, not only in the social sphere but also in the economic one.

The present paper presents not only some defining aspects regarding the leading styles that women and men adopt, but also representative analyses that demonstrate the fact that, although progress has been made regarding the “equality between genders” in the social and economic sphere, yet, there is gender discrimination in leadership.

**Keywords:** leadership, discrimination, equality between genders, evolution, culture

**JEL Classification:** J71, J83, M12, M5

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### **Introduction**

Globally, there is the tendency to promote women in many areas, by adopting some governmental programs, and also by involving different organizations with the purpose of facilitating the access of women on the labor market. Despite this, the number of women in management or political leading positions is continuously reduced, with a percentage of only 10% of all directors of public companies, and 20% of the number of parliamentarians, according to a study in 2014.

According to „The Global Gender Gap Report 2016”, the average of the presence of women in the board of directors is 14%, and only in five countries this average surpasses 30% (Iceland, Norway, France, Latvia and Finland). („The Global Gender Gap Report 2016”, p.30)

An important aspect in gender discrimination refers to the prejudice that comes from trivial things in the daily life, such as the preferences of each individual. Discrimination (direct, indirect, subjective, total or relative) represents a networking model that results in the enforcement of one or more persons who are deprived of rights and social liberties, or, on

the contrary, receive rewards due to the simple membership to a class or to a social or professional category.

A change in attitude is expected, regarding the work of women and men and the awareness of stereotypes and prejudice, so that a woman will not declare herself contented when doing the same job as a man's, receiving a low salary. The main reason for the low number of women on the labor market is the mentality of the employers, who believe the costs of payment grow in the case of a potential pregnancy.

In the case of equality of salaries between men and women, no country has ever reached the balance. From the total of 144 countries in „The Global Gender Gap Report 2016”, only in 5 countries the difference is lower than 20%, while in 88 countries (Romania as well) the difference is between 20% and 40%. In 35 countries, the difference is between 40% and 50%, and in 5 countries (France, Chile, Peru, Hungary, Brazil) the difference in payment for a similar work done by men and women, outgrows to 50%.

According to an analysis of KeysFin agency from March 2015, almost 40% of Romanian companies have a woman-leader or a woman – as the main stockholder. This business represents 22% of the total business in Romania, with 71,4 billions.

The areas where ladies excel are: commerce, consulting and management, transport of goods and people, construction work, bars and activities involving serving drinks, pharmacy.

### **Leader - women vs. leader – men**

„Women, just like men, have the right to inspire and fulfill their visions. People realize this differently, because each person has got his own system of values and also understands life and results differently. The woman fulfills things in connection with her senses and intuition. She uses emotions in order to get the resources she needs, unlike man, who gets what he wants, by being directive and focused on the action plan.”

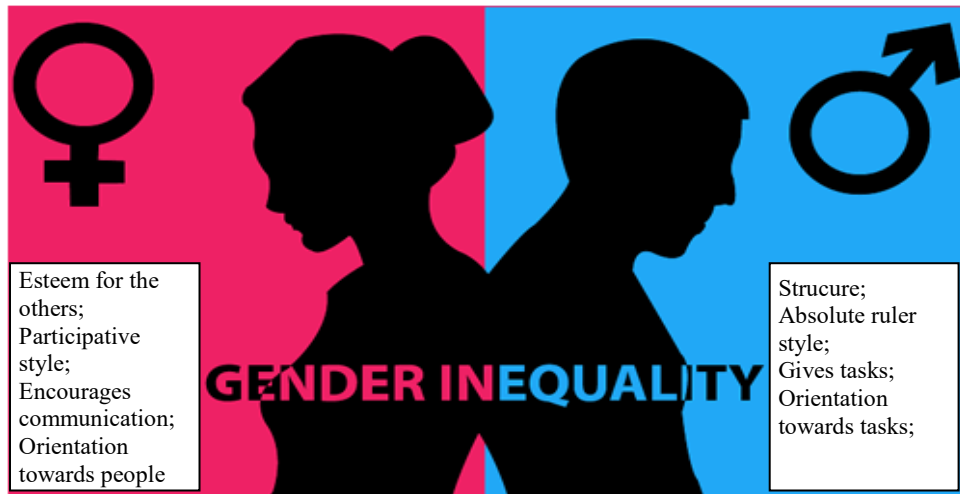
Independence and self-trust, professional mobility are essential features in choosing a leader, because it is desirable that the leading person should inspire trust and safety. The assumption of risks, affiliated to men-leader mainly, competes with the responsibility for these, affiliated mainly to women-leader. Men are tempted to adventure in presuming projects, while women analyze the possibilities to assume the risk, before showing interest in something. Prestige, diplomacy, charming, popularity are other features which make the difference between a leader and a simple human being. In the case of leader-women, one could talk about prestige, diplomacy and popularity, all these being recognized in the results of the public actions done.

The personality traits of leaders considerably influence the leading style and the way in which they are seen by their employees, having a major impact on the performances of the company. Thus, taking into account the gender (male/female), it can be stated that some traits are specific to women, some specific to men, these having an impact on the leading style.

Taking into account that in the present riotous economic environment certain qualities such as: flexibility, intuition, networking development and the motivation of employees represent „feminine values”, it can be said that, in this case, gender is an opportunity.

Yet, if the impacts of culture, of certain mentalities and perceptions that exist regarding the position of women in society, economy and politics are all taken into consideration, it can be said that gender is a discriminating element, because the tendencies to consider men the best leaders still exist.

So, in order to support all these, the idea of biological differences is one argument, certain traits genetically belong to men (authority, power, “fresh” thinking), while others to women (maternal instinct, altruism, communicating skills, detail attention, esthetics), all shaping different leading styles.



**Figure no. 1: Women leader vs. Men leader**

*Source: Adaptation*

[https://az616578.vo.msecnd.net/files/responsive/cover/main/desktop/2016/03/07/6359291542315826711975686250\\_genderequality.png](https://az616578.vo.msecnd.net/files/responsive/cover/main/desktop/2016/03/07/6359291542315826711975686250_genderequality.png)

The approach of the concept of business by women and men is identical in many cases, but the leading style is different. Thus, while men have a rational, mathematical thinking and guide themselves towards tasks, the women combine logical thinking with feelings, emphasizing links, cooperation, and networking. The leader-woman is capable of listening her employees’ complaints, understand and create a motivational space of working, proving altruism.

Generally speaking, leader-women tend to adopt a participative leading style, based on orientation towards people. Women, unlike men, are much more flexible and tolerant and this allows the creation of an incentive, motivating space and performance acquisition in any area. Comparing to men, the leader-woman is remarkable for her consideration to people and for encouraging free-speaking. Moreover, women think the success of a company is given by the capacity of managing and developing employees, while men think the most important aspect is the visibility and the awareness of internal rules.

In addition to this, the leading style adopted by men is authoritative, following the accomplishment of tasks, unlike women. The difference between men and women is not necessarily to be seen in the efficiency of their authority, but in the way they use this authority.

Yet, there is a tendency in our country to consider leading success behavior, masculine. Following this, women have been trying to adopt this specific masculine behavior in order to succeed as leaders in a wrong way, and thus they have suppressed their own feminine



features, which make the difference. A certain leadership behavior can be judged as being more beneficial when it comes to men.

### The index of gender gaps

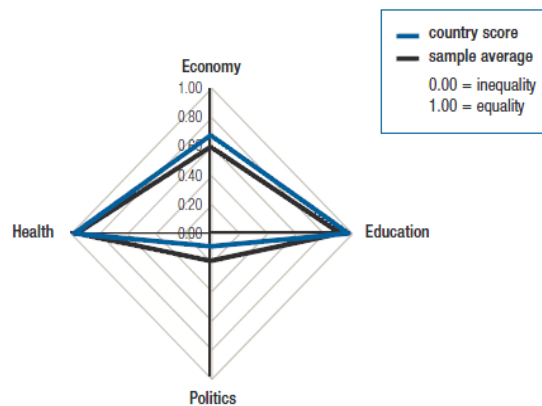
In order to quantify and measure the dimensions and the evolution of inequality of opportunities between men and women, the World Economic Forum, introduced in 2006, the index of gender inequality. This instrument reflects the gaps between women and men, analyzing four areas (lower indexes) which put the basis of the calculation of global index, at the level of each country: economic attendance and opportunities, education, health and life expectancy (the proportion women/men at birth, life expectancy), access and opportunities in politics. The values of this index are annually published for over 100 countries analyzed in “The Report of gender gap”, available on the official site of WEF. Taking into consideration the four pylons, worldwide, the European North countries are classified as being on the top of the states which have gender equalities (Island, Finland, Denmark, Sweden, Ireland), to which we add New Zealand, South Africa, Philippines. Romania is at the second half of the ranking.

In order to analyze this, there have been taken into consideration the following:

- For health and life expectancy, birth gender report has been taken into consideration, together with the average life expectancy of women and men in each country.
- Regarding the economic participation and opportunities, there have been taken into consideration the following: the differences of values between women and men in the work field, equal wages for similar works, the rate of income, the number of people who are in leader positions.
- In the case of education, the literacy rate has been taken into consideration.
- For political emancipation, the number of women working in parliament, government and administration.

Taking into consideration the present work is focusing on the leader-woman in social-economic area, economic and political sub-indexes will be the next focus.

Thus, in 2016 our country was approximately at the middle of the top, occupying the 76<sup>th</sup> position out of 144, with the score of 0.690 of gender gap index.



**Figure no. 2: The index of gender gaps in Romania**

*Source: The Global Gender Gap Report 2016, World Economic Forum, p.300*

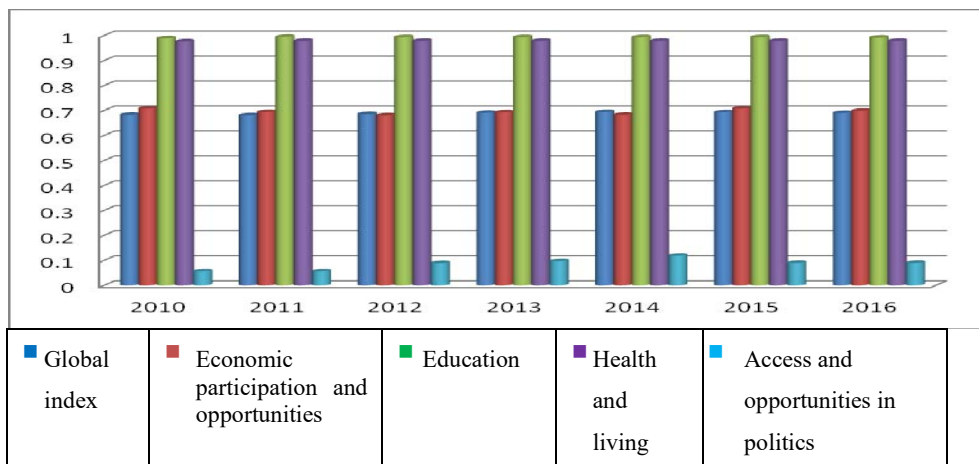
As one could notice in Figure no. 2, the sub-index “economic participation and opportunities” is 0.683, leading our country on the 60<sup>th</sup> place out of 144 in the hierarchy based on this index, a position that is not bad at all. There is, still, room for improvement (for instance a more active economic participation of Romanian women and the growth of the number of model-women, representative leader-women).

**Table no. 1: The evolution of global index regarding the gender gap and its components in Romania, from 2010 to 2016**

	2010	2011	2012	2013	2014	2015	2016
Global index	0.683	0.681	0.686	0.691	0.694	0.693	0.690
Economic participation and opportunities	0.708	0.694	0.681	0.693	0.683	0.708	0.699
Education	0.989	0.995	0.994	0.994	0.994	0.994	0.992
Health and living	0.977	0.979	0.979	0.979	0.979	0.979	0.979
Access and possibilities in politics	0.056	0.056	0.089	0.097	0.119	0.090	0.090

Source: The Global Gender Gap Report 2010-2016

The sub-indexes of “education and living” have high rates of 0.994 and 0.979, which demonstrates the fact that women and men are equally treated in education and health, having the same opportunities and services. Regarding political participation, things radically change: the value of only 0.119 sends our country on the 91st place in the top of this index. The weak result indicates an extremely low rate of political participation of women, leading at diminution of the value of global index, although the sub-indexes of education and health are scoring high rates.



**Figure no. 3: The evolution of global index regarding the gender gap and its components in Romania, from 2010 to 2016**

Analyzing the evolution of gender gap index and its components in Romania from 2010 to 2016 (Figure no. 3), one can notice the value of global index does not score significant changes. Our attention is on the rise and fall of the index indicating economic participation and opportunities and the low values of “access and opportunities in politics.”

### **The role of culture in gender discrimination in leadership**

The culture of a nation obviously influences the position of woman in society and business. There are cultures, like the Arabic one, in which, though women are allowed to access the education, have the right to activate in certain areas of economy, yet, they are not allowed to sit at the same table with men, or to walk alone on the streets. Obviously, in these cases, the concept of leadership is taboo. Another example of gender discrimination is in China, where, though the social status of woman has improved in the last decades, they are surpassed by men in professional and political life.

So, recent studies made by The Legal Centre of Woman and Legal Services of Peking University on the labor market in China, points out that 20% of women have met employers who give different tasks to different genders for the same work; 1 of 9 women loses her job when giving birth to a child, while 1 of 25 women was forced to sign contracts which stated that she will not get marry or have any children.

Taking these into account, it can be stated that in China leadership is also taboo for women. In India, the access of women to education, health or work is limited. Women in India are discriminated at work and underestimated when speaking about their competences. They are paid, on average, with 30% less than men. In addition to this, despite the efforts of authorities to equal gender gap, women still do not have the right to get a property on their names. Yet, there are situations when men are clearly disadvantaged. For instance, if a man is accused of adultery, he goes to jail, but a woman will never be charged with this. The custody of the child is given to the mother, in case of divorce, and for harassment cases, the man will be charged, even if the act itself had been initiated by a woman.

Although initiatives of discouraging women discrimination have become visible in the Indian society, it can be stated, at the moment, that women are not building a way to business in India, and even less in leadership.

In old times of Japanese, people thought women must be only housewives and mothers for their children. The fact that women in Japan did not have the right to vote until 1945 can demonstrate an obvious female discrimination, but this right was given in Japan at the same time as in France or Italy. The differences are clearer in some areas, such as politics or business. Due to the law of 1986, which established the balance between women and men on the Japanese labor market, women started to earn a well-worthy place in the Japanese society.

In America and in many countries of Europe, women have gained the right to lead, their number being larger comparing to Japan, China, India. Thus, according to a study of The World's Bank, the European average of places occupied by women in the management of big companies was 21,1 in 2015, France being the leader with a rate of 32,8%. At the same time, many European countries have clear aims of promoting women in leadership, but Romania does not have this kind of target. In France, the target is 40% until 2017, in Austria-35% until 2018(from 17, 8% presently), in Belgium-33% until 2017(from 23,4%), in Germany-30% until 2016(from 25, 4%), in Greece-33% -no deadline (from 10,3%), in Italy- 33% in 2015( from 25,8%), in Holland -30% until 2016(from 23,8%) and in Spain-40% until 2015(from 16,8%).

### **Conclusions**

In conclusion, the idea according to which men are better leaders than women cannot be justified. It can be stated that the personality traits of leaders significantly influence the leading style and the way in which they are seen by subordinates, all these having a great impact on the performances of the organization. Thus, depending on the gender, it can be said that women and men have specific defining traits, which influence the leading styles of each.

According to this specific area, the success of leader women in companies is due to their capacities of communicating honestly, of empathizing with co-workers and respecting their work. The advantage of woman is the assessment of team performances according to the targeted aims and the attempt to train her staff in order to put the basis of a skillful team. Men have a rational thinking and not an intuitive one, and in their vision business is a race to glory, the information being a precious source of gaining a competitive advantage.

Yet, the issue must not be generalized. There must be leader-women who have typical male characteristics as well as leader-men whose targets are the motivation of their staff, communication and intuition-typical female characteristics. So, in our opinion these arguments tend to be subjective, especially if we take into account the impact of culture in gender gap: the access of women to leader positions is strongly influenced by mentalities and conceptions existing in different regions of the world. Tradition and culture play a significant role in the acceptance of leader-women by society. Women have been trying to distinguish themselves, to demonstrate they can be part of an environment in which all individuals are equal in rights and obligations. There have been, worldwide, remarkable women in history, culture, and politics and not least in business. Thus, we cannot have a fair analogy between leader-women and leader-men as long as gender discrimination is present.

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## CULTURAL AND ECONOMIC ASPECTS OF PROMOTING ROMANIAN TRADITIONAL GASTRONOMY

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### Abstract

Romania has a gastronomic mosaic of great tourism potential, resulting from a millennial combination of natural, historical and socio-cultural factors. The Romanian cuisine is unique through the ingenuity of combining old peasant recipes with oriental, Polish, Russian and Ukrainian, and French-Austrian-Hungarian recipes. The Romanian cuisine contains ordinary, everyday food, and also festive dishes or dishes connected with Christian traditions. Romania currently has 558 certified traditional products, registered in NRTP, especially meat, dairy and bakery products. The certification of traditional products in the European Union has an important economic role, yet only three Romanian traditional products have received the European Commission certification (DOP and IGP). The purpose of this paper is to highlight the economic and cultural importance of promoting Romanian traditional food. The unquestionable value and quality of Romanian traditional products represent the premises for creating a brand recognized in Europe, by certifying and promoting them at gastronomic festivals and tourism fairs.

**Keywords:** Romania, gastronomy, traditional food, tourism potential, certified traditional product, promoting

**JEL Classification:** N33, N34, N53, N54, O52, Q15, Q18, Z32

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### Introduction

This study presents the Romanian gastronomy along the Romanian history, as it was influenced by a series of natural, historical and socio-cultural factors. Its distinctive features are the originality, the ingenuity of combining old peasant recipes (shepherd, fishing) with oriental, Polish, Russian and Ukrainian, and French-Austrian-Hungarian recipes. The Romanian cuisine contains ordinary, everyday food, and also festive dishes or dishes connected with Christian traditions (fasts, feasts). Each of Romania's historical regions (Muntenia, Oltenia, Dobruja, Moldavia, Bucovina, Transylvania, Maramureș, Crișana, Banat) has a well defined historical, socio-cultural, economic and gastronomic identity.

Promoting Romanian traditional cuisine and healthy food would bring significant benefits not only for the tourism industry by means of the economic growth generated by encouraging producers, but also for the education on a healthy diet. The unquestionable value and quality of Romanian traditional food represent the premises for creating a brand recognized in Europe, by certifying (in the National Register of Traditional Products or in the European categories DOP and IGP - DOOR) and promoting these products at gastronomic festivals and tourism fairs.

### **Research methodology**

This paper aims at highlighting the economic and cultural importance of the gastronomic differences between the traditional products of the ethnographic regions in our country. There are nine such regions, each with well-defined features in terms of gastronomy. The study is based on researching the bibliographic sources mentioned therein: specialty books and papers, normative and legislative acts in the field, publications and information from the web pages of Romanian and European institutions with activities in this field (the Ministry of Agriculture and Rural Development, the Ministry of Tourism, the European Commission), further processed into pertinent conclusions. The data were processed using the computing functions of the application Microsoft Excel. Besides the literature review and the analysis of data referring to the evolution in number of the Romanian traditional products certified in the period 2014-2016, we considered necessary and appropriate to conduct a market research. Its purpose was to know better the Romanian traditional product market, from the perspective of producers and traders of such products.

For a better understanding of the Romanian traditional product market, and a better gastronomic differentiation between the ethnographic regions of our country, we conducted a market research based on a *structured interview*, addressed to the producers of traditional food, present at the Christmas fairs in Bucharest, during the period 3-27 December, 2015. The questionnaire included a total of 14 free-answer questions so that the respondents could mention their own comments on the issues raised in the questionnaire, but also to learn as much additional information about their activity. The sample of 17 people was carefully selected among the producers and traders present at the Christmas fairs in Bucharest.

The *objectives* of this market research were to identify: the regions the producers and traders came from; the main categories of products sold and the distribution of traditional foods; where the producers got the recipes of traditional products from; the average selling price of traditional products and the income earned by producers; how the producers promoted their traditional products; where and how the traditional products are sold; the buyer profile and the target group for Romanian traditional products.

### **Results and Discussions**

Romania's population was predominantly rural until the second half of the twentieth century: 88% rural population at the census of 1912, 68% in 1960, 50% in 1985 and 46% today (Simoni, 2015). Most Romanians were poor peasants, their main occupations being agriculture (crops and livestock), with additional local activities (depending on the natural environment) such as forestry, fishing, hunting, beekeeping. Industrialization and food industry, agricultural mechanization and urbanization came forward only after 1960, so until then everything, from clothing to food, was homemade with agricultural products from farms.

The traditional gastronomy was influenced by natural (landforms, climate, soils), historical and socio-economic factors. Poor and divided between empires, the Romanians came in contact with the traditions of other nations throughout history, so they took and then arranged in their own way countless dishes (Turkish, Arabic, Greek, Hungarian, Austrian, French, Russian, Hebrew, Polish, Serbian, Italian, etc.). The Romanian cuisine is unique through the ingenuity of combining old peasant recipes (shepherd, fishing) with oriental (southward), Polish, Russian and Ukrainian (northward), and French-Austrian-Hungarian (westward) recipes. The Romanian cuisine contains ordinary, everyday food, and also festive dishes or dishes connected with Christian traditions (fasts, feasts).

The gastronomic culture of the Romanian people inherited many culinary traditions since ancient times. Later, the Slavs made their contribution (7<sup>th</sup>-9<sup>th</sup> centuries), as well as the Hungarians, Szeklers and Saxons colonized by the Hungarian administration in the twelfth and thirteenth centuries. From the thirteenth century until the nineteenth century, the Romanian cuisine was strongly influenced by the Ottoman occupation, but also by the Greek, Arabic, Armenian and Byzantine cuisines. In the eighteenth century, the migrants of some neighboring ethnic groups also influenced the Romanian cuisine: Ukrainian in Maramureş, Lippovan in Northern Dobruja, Serbian, Austrian, German, Hungarian and Ukrainian in Banat. After the formation of the Romanian state in the second half of the nineteenth century and then in the early twentieth century, some luxury restaurants opened in major cities with Western (French, Italian, Austrian) dishes and cooks.

Each of Romania's historical regions (Muntenia, Oltenia, Dobruja, Moldavia, Bucovina, Transylvania, Maramureş, Crişana, Banat) has a well defined historical, socio-cultural, economic and gastronomic identity. Among them, the historical regions Transylvania (including Crişana and Maramureş), Banat and Dobruja are characterized by a millennial, multicultural and inter-ethnic coexistence (Hungarians and Germans in Transylvania; Saxons, Hungarians, Serbs, Ukrainians, Czechs in Banat; Turks, Tartars, Russians-Lippovans in Dobruja), that marked the traditional cuisine.

#### **Certifying Romanian traditional products**

Under the current legislation (Order no. 724/1082/360/2013 on the certification of traditional products, Order no. 394/290/89/2014 on the certification of food products **obtained according to recognized Romanian recipes**), a *traditional product* is a food product produced on the national territory, using local raw materials, which has: no food additives in its composition, a traditional recipe, a manual production and / or processing, a traditional technological process, being different from other similar products of the same category. The traditionality of a product is recognized by *certifying* it according to the above mentioned legislation and enters in the *National Register of Traditional Products* (NRTP is a registry established and managed by the General Directorate of Food Industry of the Ministry of Agriculture and Rural Development, through its specialized department with responsibilities in traditional products). The traditional product must be labeled with the logo of traditional products. This *national logo* is the exclusive property of the Ministry of Agriculture and Rural Development (fig. no. 1). The stakeholders involved in strengthening the traditional products on the Romanian market are: the National Federation of Producers of Traditional Products and other specialized associations in the country; the Ministry of Agriculture and Rural Development through its specialized departments; the County Councils through specialized structures in agriculture; the National Authority for Customer Protection with its county offices for consumer protection; the Ministry of Health.





**Figure no 1: The national logo on the labels of Romanian traditional products**

Source: Order no. 724/1082/360/2013

In 2016, out of 558 traditional products certified and recorded in NRTP (tables no. 1, 2), the highest number is represented by the meat products (221 items, or 40% of total), followed by dairy products (125 products, that is 23% of total), bread and bakery products (85). There are 20 beverage products, 78 vegetable and fruit products (canned vegetables, jams), and 27 traditional fish products. By historical region (table no. 3), the most numerous certified traditional products come from Transylvania (285 products, that is 51% of total), followed by Maramureş (91 product, 16% of total) and Moldavia (53 products, 9.5% of total).

**Table no. 1: The structure of the Romanian certified traditional products by historical region, in 2016**

Historical region	Beve- rages	Meat products	Dairy products	Vege- tables, fruits	Bread and bakery products	Fish	Other	Total	Share of total (%)
Transylvania	2	127	66	24	57	9		285	51.08
Bucovina		7	5	5		1		18	3.23
Crişana	5		1	1	1			8	1.43
Maramureş	10	29	13	13	25		1	91	16.31
Moldavia	1	12	15	23	1	1		53	9.50
Muntenia		37	21	10	1	8	1	78	13.98
Oltenia	2	9		2				13	2.33
Dobruja						8		8	1.43
Banat			4					4	0.72
<b>Total România</b>	<b>20</b>	<b>221</b>	<b>125</b>	<b>78</b>	<b>85</b>	<b>27</b>	<b>2</b>	<b>558</b>	<b>100</b>
Share of total (%)	3.5	39.61	22.40	13.98	15.23	4.8	0.36	100	

Source: own processing of data from the National Register of Traditional Products (NRTP), provided by the Ministry of Agriculture and Rural Development

**Table no. 2 The number, evolution and structure of Romanian certified traditional products, following Order no. 724/1082/360/2013 on the certification of traditional products**

Categories of certified traditional products	2014	2015	2016	Total
Drinks	5	15		20
Meat products	117	79	25	221
Dairy products	78	46	1	125
Vegetables, fruits	44	13	21	78
Bread and bakery products	38	41	6	85
Fish	15	7	5	27
Other		2		2
<b>Total</b>	<b>297</b>	<b>203</b>	<b>58</b>	<b>558</b>

*Source: own processing of data from the National Register of Traditional Products (NRTP), provided by the Ministry of Agriculture and Rural Development*

**Table no. 3: The number and evolution of Romanian certified traditional products, historical region, following Order no. 724/1082/360/2013 on the certification of traditional products**

Historical region	2014	2015	2016	Total
Ardeal	129	132	24	285
Bucovina	8	5	5	18
Crișana	7		1	8
Maramureș	50	41		91
Moldavia	37	7	9	53
Muntenia	44	16	18	78
Oltenia	10	2	1	13
Dobruja	8			8
Banat	4			4
<b>Total</b>	<b>297</b>	<b>203</b>	<b>58</b>	<b>558</b>

*Source: own processing of data from the National Register of Traditional Products (NRTP), provided by the Ministry of Agriculture and Rural Development*

The certifications of traditional products in the European Union, such as protected designation of origin (PDO Denominazione d'Origine Protetta - PDO) and protected geographical indication PGI (Indicazione Geografica Protetta - PGI) have an important economic role, through the add value to these products, the protection of intellectual property throughout the European Union, and the increased visibility for commercial purposes. Though Romania has 558 certified traditional products, only three of them received the European Commission certification:

- magiun de prune Topoloveni [Topoloveni plum marmalade] - PGI, from April 8, 2011;
- salam de Sibiu [Sibiu salami] - PGI, from February 19, 2016;
- telemea de Ibănești [Ibănești white cheese]- PDO, from March 15, 2016.

These three Romanian traditional products entered in the database of names and records (DOOR, European Commission, Agriculture and Rural Development), being posted on the

official website of the European Commission. Another product, *novacul afumat din Țara Bârsei* [smoked bighead carp of Bârsei region] is under the process of European certification. As Romania will have more certified products, the local food industry represented by small producers will have more to gain, while the consumer will buy a genuine product at a fair price.

### **Promoting Romanian traditional products**

The best promotion of Romanian traditional cuisine is through the fairs and festivals of traditional products, that take place in different locations in Romania, during national and local holidays. They have become a good way to promote the image of the village or region they come from, attracting hundreds, sometimes thousands of tourists eager to know habits and traditions. The traditional gastronomic festivals and fairs stimulate cultural and rural tourism, by encouraging small producers and contributing to rural community development. This is why they are used more and more as instruments for regional and local economic growth (Felsenstein, Fleischer, 2003). These events dedicated to dishes are the materialization of culinary tourism, attracting many covetous all over the world. Romanian Ministry of Tourism promotes the Romanian traditional products, through the Gastronomic Calendar of Fairs and Festivals. There have been over 80 festivals and fairs of traditional food products, in the period 2014-2017 (Ministry of Tourism, 2014).

Our market research showed that the producers present at these gastronomic fairs came from all ethnographic regions of our country, especially from Muntenia (Bucharest, Calarași, Curtea de Argeș, Doftana Valley, Dâmbovița) and Transylvania (Brașov, Covasna, Sălaj), Moldavia (Bacău, Botoșani), Crișana (Oradea), Dobruja (Bărgan) and Oltenia (Craiova). We noticed significant differences between the appearance, presentation and category of marketed products, every region having its own distinctive elements. These fairs gathered producers all over our country with a large variety of traditional products, different between them and from mass produced food.

Most producers sold meat products (traditional sausages, chop, bacon, trout sausages, pig head cheese, pork rind, etc.), dairy products (cheese, sheep cheese, salty sheep cheese, etc.), and also cooked food (trout "zacuscă", meat balls in cabbage leaves, pan-fried cubed pork, cheese pie, beans with pork, etc.). There were also many producers of jam and honey, syrups and sweets (pine syrup, acacia honey, etc.). The best-selling products at the fair were: the plum jam, the acacia and rape honey, the berry and sweet quince jam, the pine syrup and bakery products (traditional pies, "cozonac" brioche and Dobos cake). In addition to the above mentioned producers, we questioned a producer of traditional alcoholic beverages (sour cherry spirit "vișinată", "palincă" and "țuică" spirits, and wine). We noticed the significant differences between the traditional products coming from different historical regions.

An interesting aspect revealed by the research was the recipe of each product. Eight of the respondents knew the recipe from their grandparents, three from their parents, one from the village elders, and another one replied that he took the recipes from some very old cookbooks. Three of the respondents gave evasive answers or did not know (but they were only sellers of those products). Given that almost all manufacturers took the recipes from "father to son" or from external sources with long experience, we can understand why these products are so individualized and specific to certain regions.

Another objective of this research was to find out if the producers of Romanian traditional food manage to get sufficient earnings to carry their activities in good conditions, and if

they make profit. Most of those surveyed responded that they manage to survive from one year to another, but it is necessary to carry out other activities to have a decent living. Here are some sample answers: "We work hard, but the money is very few, so we cannot get rich. There is little profit and we have to reinvest it."; "It is a seasonal activity. It's hard to say. I must have another activity"; "It is difficult... I also work abroad"; "The profit is little, but enough to carry on and keep our children in school.". As a business with low production and minimum investment, the profit cannot be high, and the manufacturers are aware of that. The prices of traditional products were higher than in stores, but the producers did not lack customers.

Regarding the promotion of Romanian traditional food, most manufacturers promoted their products especially at fairs and festivals, and very few of them on the internet. A limited number of producers (five respondents) had their own shop to sell their products. Only one respondent said that he used promotion with flyers and banners. Here is a sample answer: "fairs, face to face with the customer, this is the best way."

The interview showed no specific pattern of the buyer. Traditional products are purchased by both Romanian and foreign people, of all ages, and the prices are for all pockets. Most manufacturers answered that they did not have a certain target group, their products being for everybody, Romanian or foreign, young or old. There were also several different answers, such as: "...all those who appreciate our products, those who value quality, foreigners especially", "I target young people, to send them the idea of living and eating healthy, against Coca-Cola", "...people with higher incomes, who care about quality and taste."

### **Conclusions**

As a result of the rich history of our country, the gastronomic culture is very diverse, all nine ethnographic regions standing out through their own traditional food, each product having its own peculiarities (recipe, traditional ingredients, traditional production techniques, traditional instruments, etc.). The Romanian traditional products are classified into several categories, depending on the ingredients: vegetables and fruits, meat and meat products, milk and dairy products, bread and bakery products, fish products and beverages.

The literature review and our market research led us to the conclusion that traditional gastronomic festivals and fairs have a great impact on cultural and rural tourism, encouraging small producers and developing the respective rural community. By promoting traditional food in gastronomic festivals and fairs, Romania could create a brand recognized internationally. In our country, there is still a strong connection between food and places of origin, and this is a great advantage that authorities should use more to promote Romania. Many industrialized and globalized countries have lost touch with history, local agricultural products and traditional food, but Romania still has it. Most Romanian still prefer to eat traditional dishes, which are very proud of.

The main purpose of this study was to highlight the economic and cultural importance of the gastronomic differences in the historical regions of our country. The literature review and our market research revealed that our country has a great diversity of traditional products, giving individuality for each region. The number of certified traditional products varies from one year to another, from one region to another, and from one category to another. By supporting better the producers and by promoting better these traditional products domestically and internationally, the market of these products could grow considerably, leading to economic growth and tourism sustainable development.

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## THE NEW LEADERSHIP TREND - USING THE RIGHT HEMISPHERE FOR BUSINESS ADMINISTRATION

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### Abstract

Efficiency, productivity and flexibility are characteristics necessary for a business to evolve in digital society today. To increase the productivity of a business is required mainly to invest in human capital. In this context, promotion of personal development and various types of intelligences for leader are essential. Being emotional intelligent imply using your right hemisphere in decision making process. The paper bring into discussion a new type of leadership based on the right hemisphere that can ensure sustainability in business. This paper is part of a descriptive research on the subject of emotional intelligence at workplace. Regarding the research method, it was used sociological survey and the tool used was questionnaire. The research hypothesis is that people with high emotional intelligence have leadership potential. The conclusions of the paper point out that skills and attitudes of interpersonal communication, nonverbal communication, empathy and active listening which are features of emotional intelligence enhance the ability to develop leadership potential.

**Keywords:** leadership, emotional intelligence, sustainable business, human capital

**JEL Classification:** M10, L20

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### Introduction

How can a leader be effective? The priority of any human being is to fulfill his needs according to the Maslow's pyramid, starting from the basic needs related to survival up to the needs of self-esteem, recognition, and self-fulfillment.

On this logical approach, an effective leader is the one that can lead the group and be recognized by his followers. In business, they help the organization to survive, develop and grow. At the same time the leader should be a good servant. Regarding relationship between leaders and followers, the second ones can recognize by intuition if the leader can serve the humanity and not only the business.

Therefore, the leader style and intelligences – intellectual, emotional, spiritual - are important in business administration, because the leader by his attitude and behavior set the organization's values and reflects the image of it on the market (Nita, 2014).

Nowadays we do not relate to organization only as a classic concept that use specific tools, but we speak more and more about smart organizations. This is seen as a transition from learning organization to an organization that is able to adapt to a more and more competitive business environment. (McGill and Slocum, 1993). For this kind of organization, the human capital strategy reflects on various aspect about how they attract managers, recruit, assess and hire them or how they develop their own managers (Gallup, 2015, p. 9). This type of organization provides a clear understanding of its vision, spreading a mind-set and creates a culture that keep people focus.

There are different approach on growing or hiring a manager, because a great front-line employee is not necessarily going to be a great manager, while a great manager is not necessarily going to be a great leader (Solomon, 2016). Each of these roles requires a different set of aptitudes, skills and competencies (Gallup, 2015, p. 9).

The international company Gallup (2015, p.12) finds that great managers are able to motivate every single employee to take action, are characterised with assertiveness in order to drive outcomes and are able to build relationships that create trust, dialogue and transparency.

### **Human capital**

Organizations can develop integrated human capital strategies based on highly important elements in order to achieve the highest levels of performance by investing in their strongest asset — their people. And when those people get the opportunity to refine and lead with their strengths, they learn faster, work harder, advance further and stay longer, according to Gallup (2015, p. 41).

To develop the human capital and its performance, there must be taken into consideration two elements: the strength of a person and the time he spent on practicing and developing skills in order to achieve new competencies. From all the competencies considered mandatory for a good manager or leader, working on emotional competence is crucial for unlocking this potential.

### **Operation mode of the mind and types of intelligences**

Biology explain that the human brain has evolved from the reptilian brain to the limbic system, and after that to the neocortex.

The table below is designed to emphasize the human intelligence board, based on intellectual intelligence- IQ, emotional intelligence –EQ, and spiritual or quantum intelligence –SQ. It represents a personal approach on the book of Danah Zohar and Ian Marshall, “Spiritual Intelligence” and the purpose of this is to analyse in a comparative way if these three types of intelligences have similar characteristics and which are the advantages and disadvantages for this three ways of thinking. In addition to Zohar and Marshall the analysis is completed by relating to other theories of important Romanian academicians, such as Basarab Nicolescu (2008), Mircea Malita and Ovidiu Bojor, for a better understanding of concepts like transdisciplinarity, transcendence, levels of reality, and frequencies of the human mind.

**Table no. 1: Analysis of advantages and disadvantages for IQ, EQ and SQ**

No crt.	Type of intelligence	Characteristics	Advantages	Disadvantages
1	Intellectual intelligence	Thinking as a serial – logical process, based on algorithms	Accuracy, precision,	strictly does not allow ambiguities; it works only within predefined algorithm
2	Emotional Intelligence	Associative thinking, link between different emotions, link between emotions and sensations, link between emotion and environment	Uses experience in order to learn and develop, is more flexible than IQ thinking.	Less precise than serial thinking, less accuracy; Takes time to be learned; Dependent on environment.
3	Spiritual Intelligence	Unitive thinking. Based on Consciousness and awareness	Is a creative, intuitive thinking	A new way of thinking that includes and excludes at the same time IQ and EQ pattern because consciousness is linked to a transcendental experience and a new level of reality based on different frequencies. (see Romanian academicians Basarab Nicolescu, Mircea Malita, Ovidiu Bojor)

Source: adapted from Danah Zohar and Ian Marshall, *Spiritual intelligence*, 2009, Vellant Publishing House, pp. 15-83

Finkelstein and Hambrick (1996), argue that left-brain dominant individuals are more rational and tend to make good planners, while right-brain dominant individuals tend to make good managers or leaders as that the right hemisphere of the brain is responsible for processes like imagination, creativity, emotional response (Hellige, 1990). All these can be linked to an effective leadership that relies on the right hemisphere (Walmand, 2011).

**Leadership skills based on emotional intelligence**

Bass (1990) argues that leaders have to act as role models, to show high moral standards, and to inspire followers to identify with the leader.

The present research is part of a doctoral research regarding “Contributions to creating new patterns of behavior on training mentors and leaders. New approaches on leadership and the quantic intelligence”.



The instrument was designed to measure emotional intelligence among graduates of Public Administration Studies, the future leaders in public or private sector. It has 40 scales that represent: collaborative relationships at work (questions 1-10), responsibilities (questions 11-20) and stress management (questions 21-30), persuasion (questions 31-40). The questionnaire was adapted from Thomas J. Craughwell (2016) and was performed on a sample of 50 people, 28 female and 22 male with ages between 22 and 41.

Sex	Count of age
F	28
M	22

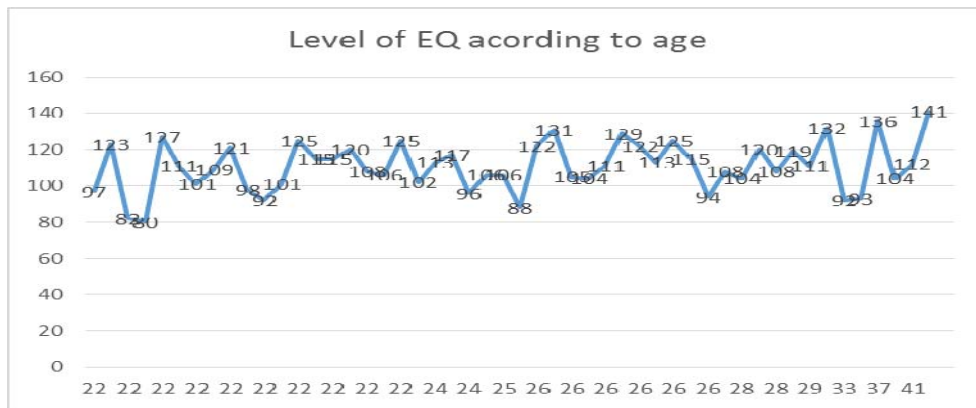


Figure no. 1: EQ score

According to the table above, the lowest score for Emotional Intelligence was 80, while the highest score was 141, with an average of 111, 41.

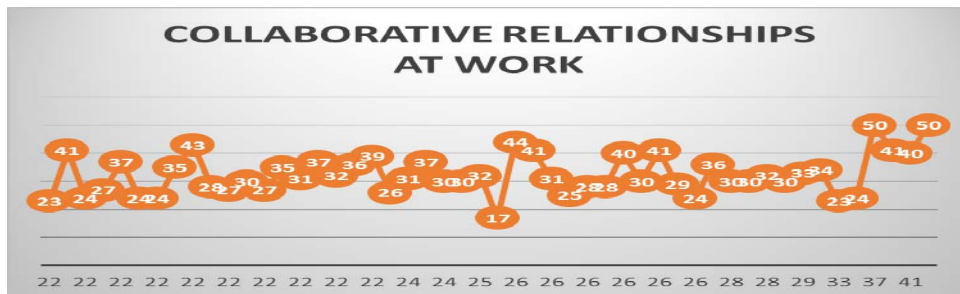


Figure no. 2: Total score regarding collaborative relationships at work

According to the graphic above only 2 persons reached the maximum score of 50 points.



Figure no. 3: Total score regarding assuming responsibilities

Only one subject out of 50 reached a maximum of 44 points.



Figure no. 4: Total score regarding stress management

According to this indicator only one subject reached a maximum of 46 points.

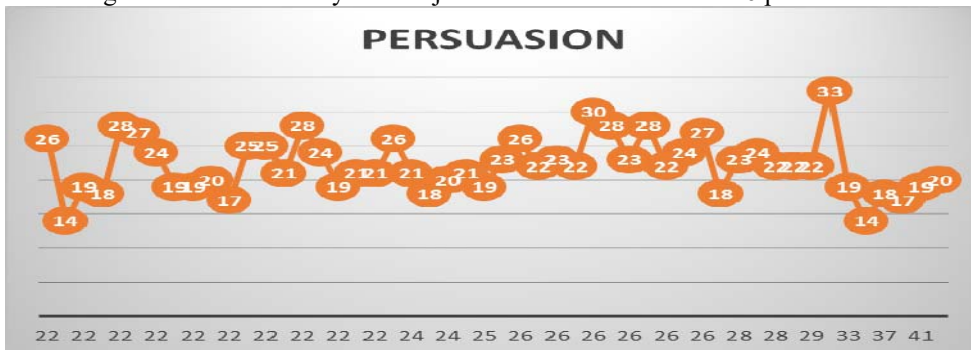


Figure no. 5: Total score regarding persuasion

Most of the students lack persuasiveness, only one person reached a score higher than 30 points.

**Tabel no. 2: The average score for each indicator**

	Collaborative relationships at work	Responsibilities	Stress management	Persuasion
Average	38, 25	21,18	32, 14	20, 06
Maximum	50	50	50	50

### Conclusions

Intellectual intelligence or Emotional Intelligence results cannot explain on their own the vastness of the human intelligence because they work on specific parameters related to frequencies. For example, Spiritual Intelligence manifest on a 40 Hz frequency, which indicate the presence of neuronal activity related to consciousness. Also this type of oscillations is found on the entire surface of the brain, covering the whole cortex.

Therefore, they need to be approached on a more complex and holistic integrative basis. These intelligences do not work independently, therefore a person don't possess only IQ or EQ, because the human mind can be seen as a holistic system where these intelligences interact and support each other, but the scores for IQ or EQ can be different.

The Emotional Intelligence test that have been applied for this group of graduates, shows that there is a potential to develop this type of intelligence further at the workplace. Emotional intelligence can be learned. Using it in an organization it makes a difference in terms of interpersonal relations at the workplace, a better stress management and decreasing resistance to change so common in organizations.

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## COMPARISON OF DIFFERENT POSSIBILITIES OF SUCCEEDING A FAMILY BUSINESS IN GERMANY

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### **Abstract**

Handing over a business can be done in very different ways with different risks and opportunities, especially if it is a family business. This paper starts out by defining the terms family business and business succession. After the main topics have been defined, the differentiation of business succession by level of preparedness will be explained. This will be followed by taking a closer look at the different aspects of business succession. Which will be separated in a family internal and family external part. Also, the groups of people who can take over the business such as family internal succession, management buy-in, management and employer buy-out, buy-in MBO, owner buy-out or an institutional buy-out will be looked at and differentiated. The reader will receive a short overview about the definition, the differentiation and a conclusion in the end. The authors decide to give a brief overview about the different possibilities of handing over and which aspects are influencing the process of handing over.

**Keywords:** Business succeeding, SMEs, buy-out, family business.

**JEL Classification:** G23, D20, L20.

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### **Introduction**

Between 2014 and 2018 more than 135.000 German family businesses have to face the project of handing over the company. But only 12 % of these companies are able to succeed the business to the third generation and furthermore only 1% are able to hand over to the fifth generation (Knop, 2017). In this paper the different options of handing over a family business internally and externally will be explained to give the reader an overview of the different possibilities. In the beginning the terms family business and succession will be defined, followed by a description of reasons to transfer a company and how it can be classified. Later the different ways of transferring the company internally and externally will be explained in detail followed by the conclusion. The changes in the markets and the globalization make it necessary for organisations to check for the best options to keep the business running after the current managing director has left the business. A survey made by the “Deutsche Unternehmerbörse” in 2011 described, that only 57% of the current

leaders see their own children as possible successors in the company, while 63% of the leaders stated that their children have other interests and do not want to succeed the family business (Deutsche Unternehmerbörse DUB.de GmbH). This development of the situation makes selling or leasing of a company more important. But for the 2.000.000 employees the handing over of the company to an external group of investors or managing director can cause fear, a lack of motivation and a high fluctuation. Therefore the internal transfer of the company to the current management or employees can also be an option.

### **1. Definition of family business**

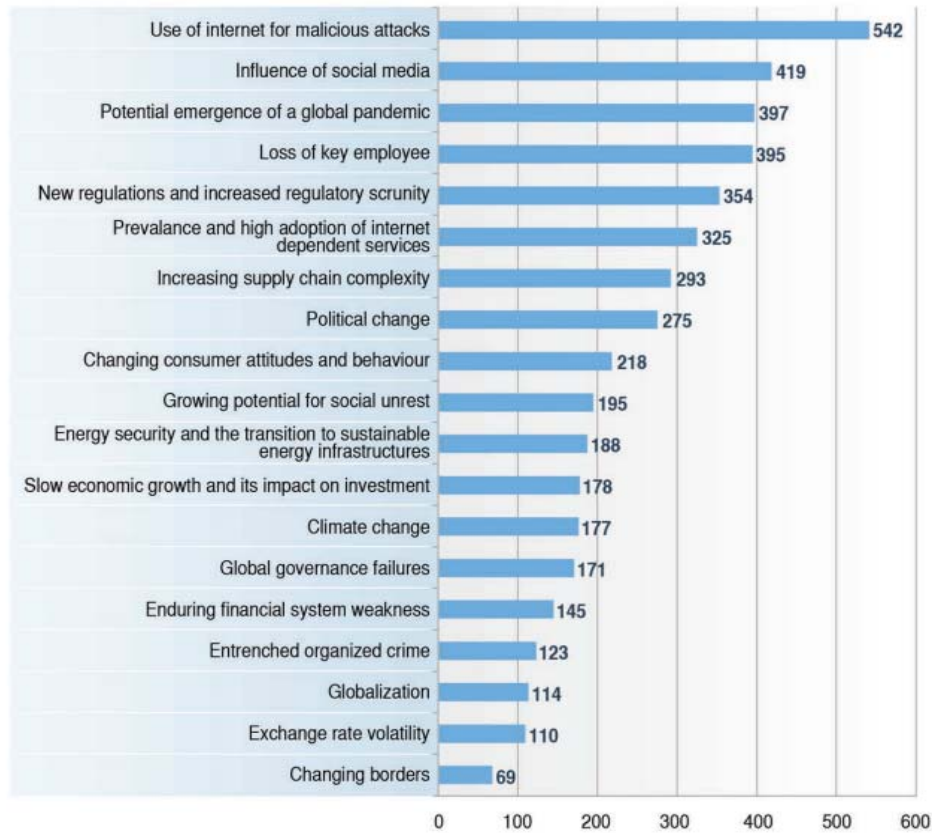
The definition of a family business is based on the relation of organisation and owner of the company (Hennerkes, 1999). Morris et al. (1997) defined in the journal of business venturing a family business as follows: “Family business is defined with family ownership and management involvement criteria. A company can be a family business and not fulfill the requirements of a small and medium sized enterprise. This can be seen by famous german companies like Miele. Miele has stated that in 2015 they had 17,741 employees, a turnover of 3.49 billion euro and a total equity of 930.08 million euro (Miele, 2015 and Hoovers.com, 2016). The family Miele is holding 51% of the shares and 49% the family Zinkann, which makes the company owned by two families (Miele, 2015). Denise Fletcher (2002) adds “[...] any company, irrespective of size, business operations and organisational structure, when owned or controlled by one family (or family units)[...]”, that an organisation “[...] can be defined as a family enterprise when family members are predominantly involved in its operations, management and ownership regime, and thus can determine its destiny”. In the example of Miele it depends on the point of view if the following design of leading management level is fulfilling the requirements of Ms. Fletcher or not.

### **2. Definition of business succession**

The definition of a business succession by Beckhard and Dyer (1983) describes it as a passing of the leadership from the founder-owner to a family member or a non-family member as a successor (Beckhard, et al. 1983). The research of the IFM in Mannheim (2000) showed, that the number of family internal successions of a company is reducing due to the following reasons: the following generation is willing to make their own way of live and has no interest in the family business; a general reduction in sense of belonging and tradition; well educated family members are already in good and permanent employment; a reduced willingness to take the risk and responsibility of the following generation. Mentioned by Thomas Wetzel (2012), the chances of a successful handing over of a family business to the next generation are increasing if the involved parties are engaged with the topic a long time before the handing over. The succeeding of a business is not only a topic for the leader and the successor. Changing the leader of a company can simultaneously mean a change in the style of leadership and can cause turbulence and fear in the company. It influences the whole company and therefore can be handled with the tools of change management.

In the horizon scan, published in 2016 by the Business Continuity Institute it is clearly visible, that the loss of a key employee is in fourth place, which means that 59% of the interviewed organisations see it as a critical factor for the organization (figure no. 1). It could be interpreted that this also includes the managing director and therefore a planned

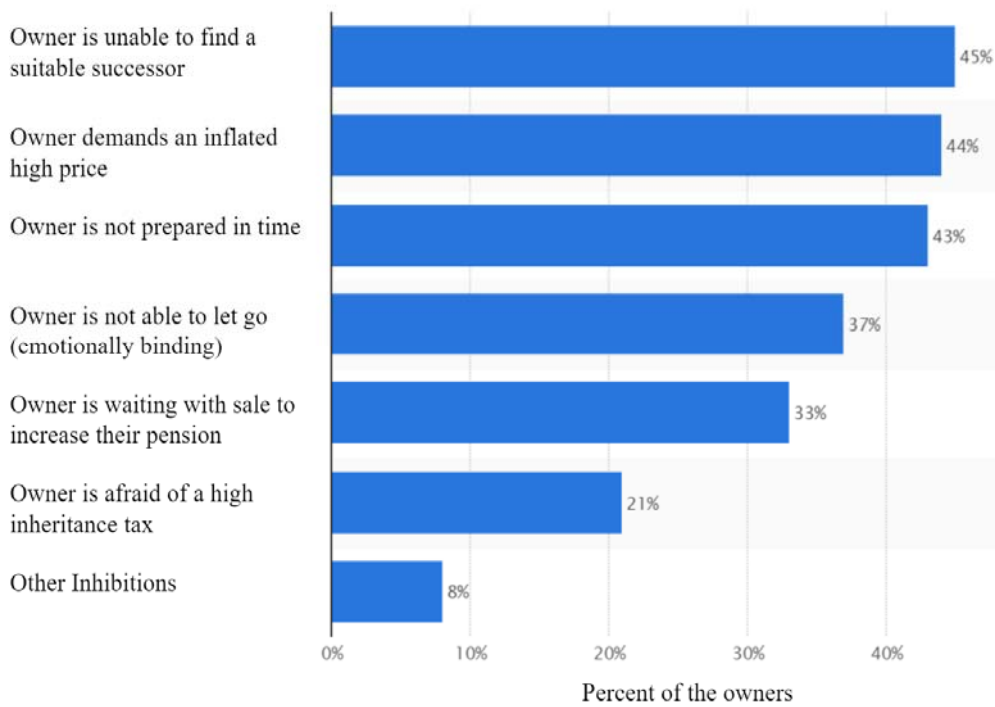
handing over is more likely to achieve a higher success compared to an unplanned or an unexpected handing over.



**Figure no. 1: Trends to evaluate in terms of Business continuity implication**

*Source: Horizon Scan 2015, 2016 p.13*

The statistics and analysing company Statista GmbH based in Hamburg has published in 2016 the statistic about the main inhibitions for entrepreneurs for handing over a business (figure no. 2).



**Figure no. 2: Inhibitions for entrepreneurs for handing over a business**

Source: Statista 2016, n.d. *Hemmnisse für Inhaber bei der Unternehmensnachfolge, 2016*

The main problem is that the entrepreneurs are not able to find a suitable successor for the business. Directly followed with 1% less is the price which is esteemed as too high for the value the business is providing. In the third place and also with 1% behind the second place is that the entrepreneurs are not well prepared for the handing over. One big problem, which can often be seen at family owned business in which the entrepreneur is also the founder of the business is in fourth place, high emotional binding of the owner of the business and he is not able to let go.

### 3. Differentiation of a handing over by the level of preparedness

The German state Thüringen gave in their information document PDF of „Gründen und Wachsen in Thüringen“ the definition of succeed a business of planned, not planned and unexpected as seen in the table no. 1.



**Table no. 1: Differentiation of a handing over by the level of preparedness**

Planned	Not planned	Unexpected
Long and medium term looking for a successor	Main reasons are divorces, disputes or other personal decisions	Main reasons are illness, accidents or death of the entrepreneur
Fixed date for the handing over	No clear regulations for the handing over	A solution for the succession has to be found in a short period of time
Clear documented regulations for the succession	Only a short period of time is available	A limited amount of time is available
The handing over is communicated		

Source: Anon, 2012. *Leitfaden Unternehmensnachfolge. 1st ed. [ebook] Erfurt: Industrie- und Handelskammer Südthüringen, p.3*

It can be stated, that in a planned situation the organisation has time to implement long and medium term targets, document and plan the handing over, integrate the new successor and communicate the new situation to the employees, customers and suppliers. This is the best foundation for a successful handing over of the company and should be aimed at. In the second case the organisation has some time to counteract the unplanned situation, but there are also some uncertainties which can damage the company and can cause fear in the employees because they do not know how it will go on in the future. A business continuity management system can help to look at such a point in advance to define what will be the actions in a pre-defined case. In the last situation the organization only has a limited period of time, because the founder has died, is ill or has an accident and is unable to lead the organisation any longer. This is what the business continuity management system is developed for to have a plan in the desk which can be used to handle such a situation until a new leader has been implemented.

#### 4. Different options of succeeding

By expanding the definitions of Birgit Felden and Armin Pfannenschwarz (2008) the family internal succession and the family external succession with its different ways of cooperation with external organizations and employees will be explained in detail:

- **Family internal succession**

**The traditional way of succeeding a family business is the handing over of a business to a family member. For example to a daughter or a son. Michael Grote the CEO of the Deutsche Unternehmerbörse said (Deutsche Unternehmerbörse DUB.de GmbH): "The current generation has much more opportunities for their development than they had ten or twenty years ago. ..."**

Therefore the number of handings over to the next generation will reduce in the next years, due to a lack of willing successors. In 2011 a family internal succession was planned for

79% of the interviewed companies, on the other hand only 44% regard a handing over to a family member as successful, which means that 13% of the companies have planned to hand over the business to a family member but are sceptical about the future (Deutsche Unternehmerrbörse DUB.de GmbH). A current leader should also consider, that a family member, like a daughter or a son, will experience a high pressure to take over a company and does not have the necessary skills to take over the business (Brandenburg, 2012). In 2013 the IFM in Bonn published their results of a meta analysis which showed that 54% of the family businesses are handed over to another family member. But also Michael Grote stated during an interview with the Handelsblatt in 2012: *“A family internal handing over of a company is mostly a simple and the easiest solution. But later this succession of a business turn out to be bad prepared, rushed and simply the wrong decision.”*

This should also be taken into account when handing over a company.

• **Family external succession**

There are plenty of options for a family external succession of a company, for example the Management buy-in scenario, in which the business is sold to an external manager or a group of managers who are taking over the ownership and the leading of the company. In 2016 34 management buy-outs in Germany (between 50 and 250 million euro) have been financed by private equity companies with a total amount of 3.6 billion euro, a growth of 0.9 billion compared to 2015 (Deutsche Beteiligungs AG, 2017). By taking into account, as the IFM in Bonn stated, that between 2014 and 2018 135,000 companies have to be handed over the part of management buy-out, financed by private equity is rather the exception (Kay and Suprinovič, 2017). The advantage is, that the new managers bring in new ideas and are able to optimize the structure of the organisation and can save the workplace (Wink, 2014). The negative aspect is, that the new management has to learn the roots of the new organisation, is not familiar with the structure and can have failed estimations of the earnings (Kneer, 2009). The IFM stated in 2013 that 29% of the businesses which had been handed over are succeeded by an external person or group. This could be a single CEO or a group of people (Kay and Suprinovič, 2013). The Management and Employer buy-out describes that the business is taken-over by internal employed persons who are taking over the owner- and leadership of the company. This could be a smaller group like a management buy-out in which the current management takes over the business or a bigger group like employees, which could be a negative aspect because of the bigger amount of shareholders. This is a way of handing over the business with which at least 17% of owners decide to go by. (Kay and Suprinovič, 2017) The combination of a buy-in and buy-out is named Buy-in MBO. In this case the existing management buys out and a group of external investors is also taking a seat in the management of the company. The buy-in management buy-out is trying to combine the advantages of the management buy-in and the management buy-out and avoid the disadvantages. Kneer (2009) mentioned that it can be a problem to remove the external manager if something does not go as planned on one hand, but on the other this hybrid version is more and more preferred instead of the Management buy-in, which has a high error rate. The Owner buy-out describes the funding of a new company which has the main purpose to hold shares of the old organisation, which is often used for a business succession (Wink, 2014). This new company, so called “newco”, will be used to reorganise the property reservations for example external investors or family successors (Neukirchen, 1995). One advantage is the reduced tax burden during the family internal transfer of the company (Neukirchen, 1995) and the spreading of the risk (Wink, 2014). The last to be mentioned models of handing over a company in this paper is the

Institutional buy-out. This model uses external investors who are buying shares of the company and the management can stay (Sauermann, 2010) or can be replaced (Pacher, 2011). The external investors, which can be for example a private equity group have the main role in the lining up of the company and its strategic targets (Krämer, 2007). Target of a private equity group is to invest in companies which are not listed at the stock market to strengthen the organisation and then exit the company in different ways to gain profit (Meurer, 2007).

Birgit Felden and Armin Pfannenschwarz (2008) separates the different options of succession in a matrix which describes the traditional way of handing over a company. A family member takes over ownership and leadership. The mixed managing directorship can be a situation in which an external leads the company in cooperation with a family member while the company is owned by the family. Compared to the third situation in which the family owns the company, but an external takes over the leadership. This can be the situation in which none family member is able or willing to lead the company due to a lack of knowledge, other interest or the low age of children. In the first case of the mixed ownership situation the family leads the organisation and owns a part of the company while for example a venture capital provider also holds shares of the business. In the second situation the ownership situation is still splitted, but the external party is also active in leading the organisation. In the last situation the family still owns parts of the organisation but does not lead the organisation anymore. In these cases, the company is fully owned by an external party. It is therefore not very common that family members are still involved in the leading of the organisation. The most realistic way is, that the whole organisation is sold to a family external group which will also take over leadership of the company, which can be for example a strategic of financial investor, which has been handled above.

**Table no. 2: Differentiation by type of leading and owning**

Leadership by Ownership by	Familymember	Mixed form	External
<b>Familymember</b>	Traditional family member will succeed the business	Mixed managing directorship	non-family Member take over Lease of the business
<b>Mixed form</b>	Integration of a Partner, Venture capital providers, associated company	Integration of an active partner	E.g. the creation of a Foundation
<b>External</b>	Marginal Case: Further employment of family members after the handing over of the company to a third party		Sale of the business to a strategic or financial investor

Source: Felden, B., Pfannenschwarz, A., Grosser, A., Meissner, D. and Assaf, H., 2008. *Unternehmensnachfolge*. Oldenbourg: Oldenbourg Verlag, p.27

### Conclusions

Business succession is a complex topic and there are many variables which are influencing the process. Handing over a family business is more complex due to the involvement of the family which has to be taken into account. The different stakeholder increases the complexity of the process due to their significance to the company. On one hand there is the owning family, who is maybe also involved in management decisions and can have a high emotional binding to the business. The current CEO has maybe founded the company or led it over a long time. He invested a lot of money, time and effort which can cause also a big personal binding. He is highly involved in the process of succeeding the business and if it is a family internal succession is maybe facing the problem of who will take over. If there are many candidates it is on him to decide to split the led or maybe choose one. People are always afraid of change and business succession is always coming with changes. This can cause fear within the employees due to the unexpected outcome of the handing over. The options how to proceed the business successions have been explained during the paper and it is possible to separate them in family internal and family external. In general it can be stated, that a successfully done family internal business succession needs to be prepared and needs to be planned over years. Finding the right track is not only based on the decision to whom the company will be handed over in which way but also on the available time of preparation and the differentiation about current and future owning and involvement of the family. Sometimes a family internal handing over is not done due to the personal interest of the daughter or son to follow a different path and not willing to take over the business. On the other hand sometimes the family members are too young or do not have the right skills for leading a business. In these cases handing over to a family external party could be an alternative for secure the jobs and the organization. The process is complex and there is not the “one way” of doing it best. But taking into account the different options and assess the advantages and disadvantages of each way will help to get an overview about the possibilities.

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## QUALITY AND INNOVATION IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

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### **Abstract**

Quality and innovation are two important strands and challenges for sustainable development, which have not been linked in the scientific literature yet. This paper shows some of the issues posed by research for sustainability. Understanding and bridging this division offers a theoretical approach to the study of action for sustainability because that could turn out to be the greatest inspiration for innovation ever seen. The paper aims to analyze the opportunities offered by the binomial quality - innovation in facing challenges for a sustainable development. Meanwhile, there is some consensus in the business environment on the fact that corporate social responsibility strategy and sustainability management objectives must be aligned as social investments and measured in quality and economic terms.

**Keywords:** quality, innovation, sustainable development, corporate social responsibility

**JEL Classification:** M14, M19, O3, O39

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### **Introduction**

The global challenge for sustainability has already begun to transform the competitive landscape, which will determine companies to change the way they think about products, technologies, processes, and organization systems. In that context, the key to progress and development, particularly in difficult times, seems to be the binomial quality- innovation. Quality and innovation are two important strands and challenges for sustainable development, which have not been enough linked in the scientific literature yet. The literature review would mainly aim at gaining understanding of the complex and comprehensive relation between quality and innovation. Both concepts are widely explained and developed in research studies, but their synergy has not been adequately studied and used in business models. While some studies found a positive association between quality management practices and innovation (Feng, et al., 2006), others showed no such connection (Santos-Vijande and Alvarez-Gonzalez, 2007). Specifically, it is possible to note the concepts of quality innovation and innovation quality from the literature, but the former is more closely related to investments in products/services during

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their life cycles, and the latter is a wider concept and is related to the innovation of products, processes and systems (Renzi, 2016).

Regarding concerns about the subject, it is worth mentioning that the main theme of the 19th QMOD/ICQSS conference held in September 2016 in Rome, was: Building a Culture for Quality, Innovation and Sustainability.

The main purpose of this paper is to highlight the power of a quality-innovation model in order to achieve a sustainable way to develop a business. There are companies that have developed new business models just by asking themselves, at different moments, what their business should be. Most executives assume that creating a sustainable business model entails simply rethinking the customer value proposition, but traditional approaches to business will collapse, and companies will have to develop innovative solutions, where quality should be in the front line. That competitive advantage could place them in good stead, because sustainability will always be an integral part of development.

### **Content/Background**

In agreement with an attitude of sustainable development that any company needs, Dow Jones introduced in 1999 an index measuring how a company works from this point of view: Dow Jones Sustainability World Index (DJSWI). In recent years, more and more investors have taken this index into account when they decided to invest in a particular company. According to the sustainable development knowledge platform, United Nations take into consideration 17 goals: no poverty; zero hunger; good-health and well-being; quality education; gender equality; clean water and sanitation; affordable and clean energy; decent work and economic growth; industry, innovation and infrastructure; reduced inequalities; sustainable cities and communities; responsible consumption and production; climate action; life below water; life on land; peace, justice and strong institutions and partnerships for the goals (United Nations, n.d.1). The 17 Sustainable Development Goals and 169 targets, which the United Nations are announcing today, demonstrate the scale and ambition of the new universal 2030 Agenda for Sustainable Development. The Goals and targets will take into consideration and balance the three dimensions of sustainable development, i.e. economic, social and environmental, and stimulate action over the next fifteen years in areas of critical importance for humanity: people, planet, prosperity, peace and partnership (United Nations, n.d.2).

The High-level Political Forum on Sustainable Development is the central UN platform for the follow-up and review of the 2030 Agenda for Sustainable Development adopted at the United Nations Sustainable Development Summit on September 25, 2015.

Consequently, we can say that there is no alternative to sustainable development. In the management of sustainability, businesses need to take into account economic, technological, environmental, socio-cultural and political elements.

Traditionally, economic progress has been measured in terms of the quantity of economic activity (GDP) and the size of the economy. In a sustainable world, the key issue is the quality of economic activity, the extent to which it meets real needs, and whether it respects ecological limits. At a product level, quality refers to durability, reparability and upgradability. The challenge for companies is to combine increasingly rapid technology cycles with longer product life cycles (United Nation, n.d.2).

The innovation and creation of new and more sustainable industries are stimulated by investments in research and development. According to United Nations Platform, global expenditure on research and development as a proportion of GDP stood at 1.7 per cent in



2013. This figure masks wide disparities. Expenditure on research and development was 2.4 per cent of GDP for developed regions, 1.2 per cent for developing regions, and below 0.3 per cent for the least developed countries and landlocked developing countries. The number of researchers per 1 million inhabitants showed a similar pattern. While the global average was 1,083 researchers per 1 million inhabitants, the ratio ranged from 65 per 1 million in the least developed countries to 3,641 per 1 million in developed regions (United Nations, 2016).

Moreover, to achieve progress towards sustainability, it is crucial to develop a realistic and viable vision of a sustainable world and a greater participation of companies, stakeholders and employees, because sustainability is not only about preserving environment but also social and cultural assets.

### **Quality and innovation**

Innovation provides quality professionals with a great opportunity to contribute to corporate performance more visibly. Gupta believes that innovation is the new face of quality and quality profession is evolving, from product control to quality assurance to advocacy (Gupta, 2009).

The main challenge is to determine how quality and innovation may be integrated into a coherent and powerful strategic package. Both quality and innovation play vital roles for businesses to remain competitive. While innovation aims for breakthrough, quality aims for high and sustainable performance in existing business areas, the two concepts being mutually dependent. It requires expertise, commitment, coordination, and innovative ideas to achieve.

There are studies about the relationship between quality management practices and innovation considering that organizational capability to manage quality processes may play a vital role in identifying routines, establishing a learning base, and supporting innovative activities (Dong-Young, [Kumar](#) and Kumar, 2012).

Quality management has the potential to invigorate an organization's product, process and administrative innovation. The positive relationship between quality management and innovation is moderated by the effects of organizational size, task and managerial ethics.

Social quality management practices enhance the use of technical quality management practices, and, in turn, the use of technical quality management enhances social quality management and innovation. Quality management is fundamental not only on a managerial level, but also among lower level employees. Social quality management, unlike technical quality management, focuses on employee empowerment which enhances innovation (Schniederjans and Schniederjans, 2015).

Obviously, the tools of quality management are very supportive in the development and management of innovation. Most of the organizations try to generate new ideas for innovation either by the measurement of customer satisfaction or by listening to the ideas of the members of the quality team, like in benchmarking practice.

The European Foundation of Quality Management has recently integrated the innovation concept into the quality management model. Innovation is linked to quality and should be an important part of quality management; the real issue is now to state how to assess this supporting culture of innovation, what the components are, and how it leads to high quality organizational performance (Anon, 2015).

Therefore, the concept of innovation quality allows for making a statement about the aggregated innovation performance in every domain within an organization by comparing

the result with the potential, and considering the process on how the result has been achieved. Starting from this basis, it will now be possible to integrate the concepts of quality and innovation. That's why we can say that there are strong similarities between innovation management and quality management (Anon, 2015).

In recent years, economic, environmental, and social forces have quickly given rise to the "sharing economy," a collective of entrepreneurs and consumers leveraging technology to share resources, save money, and generate capital; that could also be met on the innovation market, because it is in fact a socio-economic ecosystem built around the sharing of human, physical and intellectual resources (Shaheen, 2016).

A sharing economy is a robust, sustainable economic system that is built around a long-term vision, considering the impact and consequences of present day actions on the future (Matofska and Sharer, 2016).

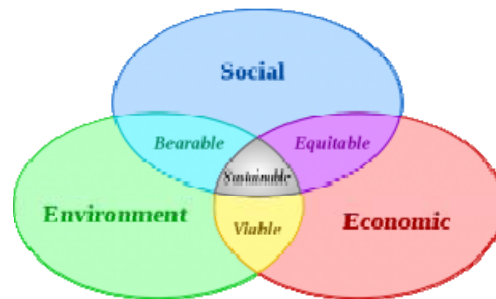
Open Sustainability innovation is the integration of the consumers' ideas into the process of innovation. This means that the creation of innovation should come largely from the consumer's input and ideas, that prove strong link with the feedback element of the TQM (Total Quality Management) (Anon, 2016).

**Sustainable development versus CSR**

Sustainable development and Corporate Social Responsibility are closely related business concepts that have greatly affected corporate governance in the early 21st century. One factor integral to both sustainable development and CSR is the environment. Both emphasize environmental preservation, recycling and renewal programs.

Sustainability is often equated or confused with a company's Corporate Social Responsibility (CSR) activities. In fact, the policy of sustainable development should include or incorporate the CSR actions of a company. At least, CSR actions should follow and comply with sustainable development policy.

Sustainable development recognizes the inseparable link between people, the planet, and wealth, and so does CSR; it advocates for policies that fully consider these three components to ensure that none negatively impacts on the others (Institute for International Urban Development, 2012). A program that is enacted "sustainably" means that attention has been given to meeting human and environmental needs, as shown in Figure no 1:



**Figure no.1: Sustainability Venn Diagram**

Source: Institute for International Urban Development (I2UD)

Therefore, companies have started to integrate the principles of sustainable development in business, business processes, and their philosophy of work requires that CSR shares held by the company contain a significant component of sustainable development. Basically, it wants any direct action supported by the company or company to achieve goals and obtain long-lasting results. Many managers believe that CSR actions should be subordinated to the company's sustainable development policy (Mandache, 2016).

In their book "The Debate over Corporate Social Responsibility", May et al. (2007) provide detailed evidence in the interrelationship between CSR and sustainable business. According to them, both concepts highlight the notion of balancing economic interests versus social and environmental interests and the current versus future generation's interests. However, they quoted Foot and Ross's (2004) argument that sustainability or sustainable business is a broader concept compared to CSR (May, Cheney, and Roper, 2007).

These two terms can seem interchangeable, but there are some differences between them, in terms of: vision, targets, business, management, reward and drive (Last, 2012). CSR and sustainability are interrelated and many use them interchangeably as well. However, we find it useful to distinguish between CSR and Sustainability in a business context.

In a world where the two terms are slowly becoming intertwined, should we focus on the similarities or the differences? There is a multi-dimensional view of CSR, known as [4CR](#). This incorporates three interlinked movements in the corporate world: CSR, sustainability and worldwide reforms on corporate governance (Knowless, 2014).

It is useful to think about sustainability that is the context in which the business will operate, especially with a focus on the natural resources it consumes both directly and indirectly, but the key challenge for companies today is that best practice quality management systems (QMS) for applying CSR are not total readily available, against which a company can benchmark its efforts in this regard. However, in the meantime, various organizations have developed resources, analyzed and offered guidance on various aspects of CSR.

#### **Quality - Innovation - Sustainability**

Sustainability is generally defined as achieving 'triple bottom line' success. Triple bottom line has also been called 'full cost accounting' and when success shows economic, environmental and social profit (some people say: People, Planet, Profit as a way of referring to the triple bottom lines of sustainability) (Anon, 2007).

In the interdependent and competitive global economy, one must find true competitive advantages based on features and capability rather than quality alone. Deming used to consider the four pillars of quality as:

- improvement of current product(s) and service(s);
- innovation of product(s) and service(s)
- improvement of current processes
- innovation of processes.

The quality of innovation becomes a differentiating factor. The quality of innovation implies how well each business is equipped to innovate and offer high-volume custom solutions. Thus, the businesses will be moving from quality improvement to innovation improvement (Elkington, 2011).

There are opinions considering sustainability the new total quality management. Looking back in time, International Standards Organization launched its first quality standard, ISO

9000, in 1987, focusing on the management of quality in business. Later, in 1996, it came up with its family of environmental quality standards, starting with ISO 14001. And most recently we have ISO 26000, released in 2010, and designed to bring social responsibility (Elkington, 2011).

Many authors consider that TQM can become "even more compelling and exciting" if it works out how to embrace sustainability. In 2009, Nidumolu and Rangaswami, in the Harvard Business Review, declared sustainability to be the "key driver of innovation" (Elkington, 2011).

Innovation, quality management and community action are also important strands for sustainable development. The opportunities presented by grass-roots innovation are the challenges confronting activity at this level ([Seyfang](#) and Smith, 2007). Using the binomial Quality-Innovation, enterprises face different challenges and must develop new capabilities to tackle them by following 5 stages (Nidumolu, Prahalad and Rangaswam, 2009):

- viewing compliance as opportunity;
- making value chains sustainable;
- designing sustainable products and services;
- developing new business models;
- creating Next-Practice Platforms.

Focus on sustainability, quality and innovation will take companies beyond process and product, towards management policies and practices, organizational structures, and beyond the borders of their organizations.

### **Conclusions**

Understanding and bridging the complexity of the relationship between quality, innovation and sustainability offers a theoretical approach to the study of action for sustainability because that could turn out to be the greatest inspiration for innovation ever seen.

Since Total Quality Management (TQM) has proven to contribute to good economic performance over the years, it is interesting to review synergies of TQM, innovation and sustainable development.

Meanwhile, there is some consensus in the business environment on the fact that corporate social responsibility strategy and sustainability management objectives must be aligned as social investments and measured in quality and economic terms.

Traditional approaches to business will collapse, and companies will have to develop innovative solutions.

Sustainability = Innovation+ Quality is the equation that could make it possible.

These types of considerations begin to explore the areas where quality and innovation are taken into consideration with a view to adopting sustainability as a way of doing business.

Currently, it is generally accepted that progress toward sustainability is possible only with significant changes in the modes of production and methods of doing business. This means that the way to achieve sustainability and corporate social responsibility requires a wide and permanent consideration of a double perspective in which individual businesses should be analysed more specifically, from the quality and innovation point of view, embedded in a larger societal system.

One of the main basis for generating competitiveness could be considered the capacity to generate and manage innovation by integrating the quality dimension, and the society has to decide which (balance of) economical, ecological and social goals are to be met.

Every successful company needs leaders who can understand and fully implement these concepts in order to help lead sustainability, innovation, and quality in the organization and to manage the opportunities and challenges that result. The management of the organization has a major role to play in terms of ensuring a culture of quality and innovation which permits every member to be involved and contribute to improvements through the involvement of employees in detecting and monitoring quality performance.

Quality management should be scrutinised by stressing the sustainability of values, tools and techniques through innovation and a sustainable quality management provides the potential to improve and extend the best practices of TQM in the future.

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## COULD A COMPLAINING EUROPEAN CONSUMER BE HAPPY?

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### **Abstract**

Protecting the consumer's interests is a priority for the European officials' policy, representing a way to improve the EU citizens' way of life in the attempt to have a secure market in a united Europe. The paper carried out an analysis regarding the evolution of the complaints expressed by European consumers and the main causes which led to their complaints, by means of the records from the European Consumers Complaints Registration System platform, which was especially designed for this purpose. The obtained results indicate a decrease in the number of complaints recorded in the last period, after a historic high recorded in 2015. European citizens are unhappy mainly because of the poor quality of consumer goods, because of their improper marketing or because of the unfair practices used in financial services. Monitoring and analysing the causes of the European consumers' complaints may represent valuable clues for the European and national authorities in adopting the adequate legislation and in forming a friendly market for the European Union citizens.

**Keywords:** consumer, complaints, protection, market, policy.

**JEL code:** D18, H 79.

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### **Introduction**

Consumer protection represents a priority in European policy and an essential element for the proper functioning of the common market. The purpose of the European consumer's protection strategies is to guarantee consumer rights in their relationship with merchants and to offer supplementary protection measures for vulnerable consumers. Consolidating consumer position and the efficient protection of the European consumer's safety and economic interests are the main goals of European policy in the domain of consumer protection. According to the European Parliament (2016), an efficient policy in the domain of consumer protection is mandatory for an efficient and functional European market. The European Parliament acts constantly in order to improve the European consumers' protection regulations in view of achieving a "Europe of citizens". The consumer protection measures at a European level propose strict safety requests in order to guarantee a high level of trust to consumers in the following areas: toys, electrical equipment, cosmetic and



pharmaceutical products, food, lighters, individual protection equipment, equipment or recreational vessels. EU also protects the general interests of consumers in areas such as fair trade practice, misleading advertising that denigrate competing brands (comparative advertising), price indicators and labelling schemes, unfair contract terms, distance and door-to-door selling, package holidays and contracts regarding timeshare contracts on real estate or passenger rights (for leisure or business trips).

### **1. Relevant European legislation in the domain of consumer protection**

According to the European Parliament (2017), the main legislative regulations in the consumer protection domain are represented by Article 4 paragraph (2) letter (f) and articles 12, 114 and 169 from the Treaty on the Functioning of the European Union (TFEU) and Article 38 from the European Union Charter of Fundamental Rights.

Article 114 from TFEU represents the legal basis for the standardising measures that focus on the establishment of a common European market, laying the emphasis on ensuring a high degree of protection, including consumer protection, in line with the scientific progress.

Article 169 from TFEU introduced a legal basis for a complete range of measures that must be taken at a European level in the consumer protection domain. The above-mentioned article stipulates that “in order to promote consumers’ interests and in order to ensure a high degree of consumer protection, EU contributes to protecting health, safety and consumers’ economic interests as well as promoting their right to information, education and organisation in view of defending their interests.” Also, the article promotes an increased focus on consumer interests within the other EU policies. In this regard, article 169 consolidates article 114 and broadens its scope beyond the single market so that it could include access to goods and services, access to courts of law, public service quality and certain aspects regarding nutrition, food, housing and the policy regarding health. Moreover, the article mentions the fact that the EU measures cannot prevent a Member State from maintaining or introducing more stringent protective measures as long as they are compatible with the treaties. Consequently, the consumer protection policy is part of the EU’s strategic objective to improve the life quality of its citizens. Apart from the direct actions meant to protect rights, EU also makes sure that consumer interests are included in the European legislation from all relevant policy areas. In compliance with article 12 from the TFEU, the requirements from the consumer protection domain must be taken into account when the other policies and actions of the EU are defined and applied.

Article 38 from the European Union Charter of Fundamental Rights (Official Journal 2012/C 326/02, 2012) consolidates consumer protection by mentioning the fact that the EU policies must ensure a high level of protection to consumers.

According to the European Commission (2016), the EU's consumer policy has four key objectives: to protect from unsafe products; to ensure that the spending choices are based on clear, accurate and consistent information; to give access to fast and efficient ways of resolving disputes with traders and ensuring they respect consumer rights and keep rights up to date with economic and societal changes.

### **2. Short literature review**

Stanciu (2015) tries to establish a connection between the Romanian consumer’s complaints submitted at the National Authority for Consumer Protection and the Romanians’ income and food consumption, reaching the conclusion that there isn’t a strong

correlation between these variables on the Romanian market. Recent papers from the economic literature deal mainly with the consumer's attitude and complaints regarding online commerce. Thus, Girneata and Dobrin (2015) carry out a study in Romania regarding the online buyer behaviour, online shopping safety and the information system on consumer rights. Romanian consumers are quite cautious when it comes to online commerce as compared to other European states, also being reserved to make complaints about non-compliant products. Nica (2015) deals with consumer psychology in the decision-making process as an online client, analysing the main elements which affect the online customer's satisfaction and his loyalty to e-commerce. Goga (2014) examines mediation in civil and commercial matters at a European and national level, correlating these aspects with statistical analysis and with the potential applications in the amicable resolutions of the Romanian consumer's complaints.

Achim and Borlea (2014) analyse the Romanian consumer's satisfaction in the domain of financial services from the perspective of business ethics, of the specialised companies' attitude and of the complaints coming from customers. Although Romanian companies are trying to comply with the EU regulations, the study reveals an alarming increase in consumer complaints, due, in particular, to unfair contract terms, during 2009 – 2013.

Resnik and Harmon (1993) draw a parallel between consumer complaints and the managers' actions on receiving a complaint. A suitable reaction from the part of a company's management may lead to an amicable resolution of consumer complaints and to a cost reduction for companies with dissatisfied customers.

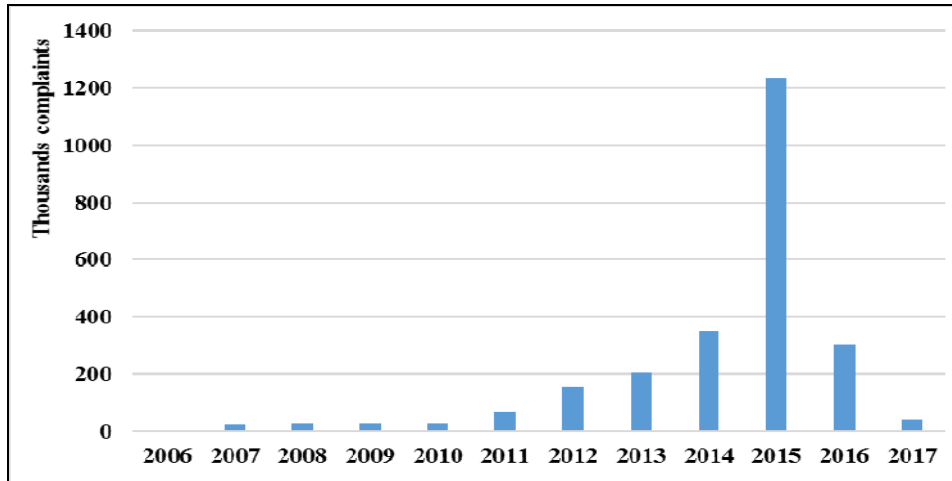
### **3. Modern tools used in managing consumer complaints**

The information regarding the European consumers' complaints was taken from the official site of the European Commission, the European Consumers Complaints Registration System (ECCRS), the European Office Statistics, the European Consumer Centres Network Romania, and specialised journals. The data was statistically processed, graphically represented and interpreted. The obtained results were compared to the relevant information from the domain-specific literature for a proper interpretation.

The modern management of the European consumers' complaints reached a higher level by creating an electronic system for registering complaints ECCRS (European Commission EC, 2017). The platform offers real-time information regarding the total number of complaints, the main categories of complaints at a European level and the most important complaining reasons of the European consumers.

The European Consumer Centres Network (ECC-Net) has an information centre and an office in each of the Member States, in Norway and Iceland, respectively. The other 30 offices offer free counselling services to consumers and free advice regarding cross-border shopping performed either online or in shops. With their help, the ECCRS-specific information is collected, the ECC-Net being connected with approximately 100,000 consumers every year and handles about 40,000 consumer complaints (EC, 2015).

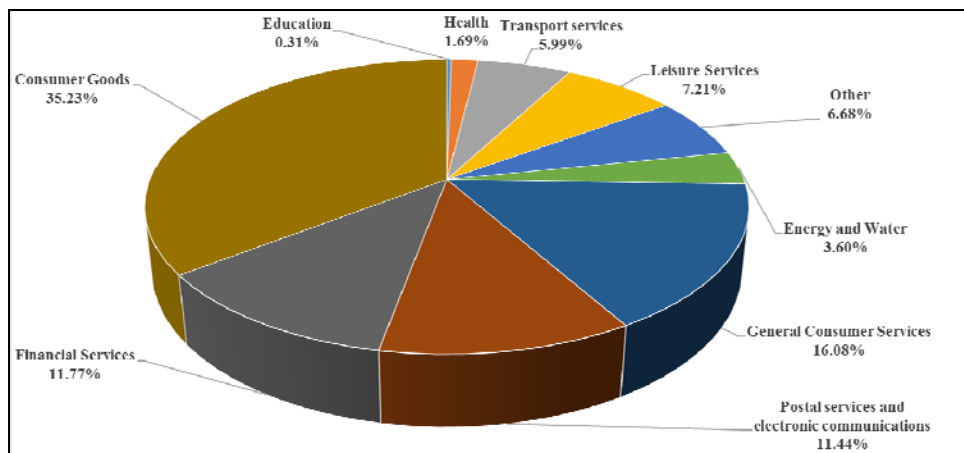
During the period January 2006 – March 2017, there were recorded a number of 2,461,712 complaints on the ECCRS site (figure no. 1). Over 50% of the complaints were submitted in 2015, year in which most European consumers' complaints were recorded.



**Figure no. 1: Total number of complaints, by year**

Source: Author, by using European Commission Data (ECCRS, 2017)

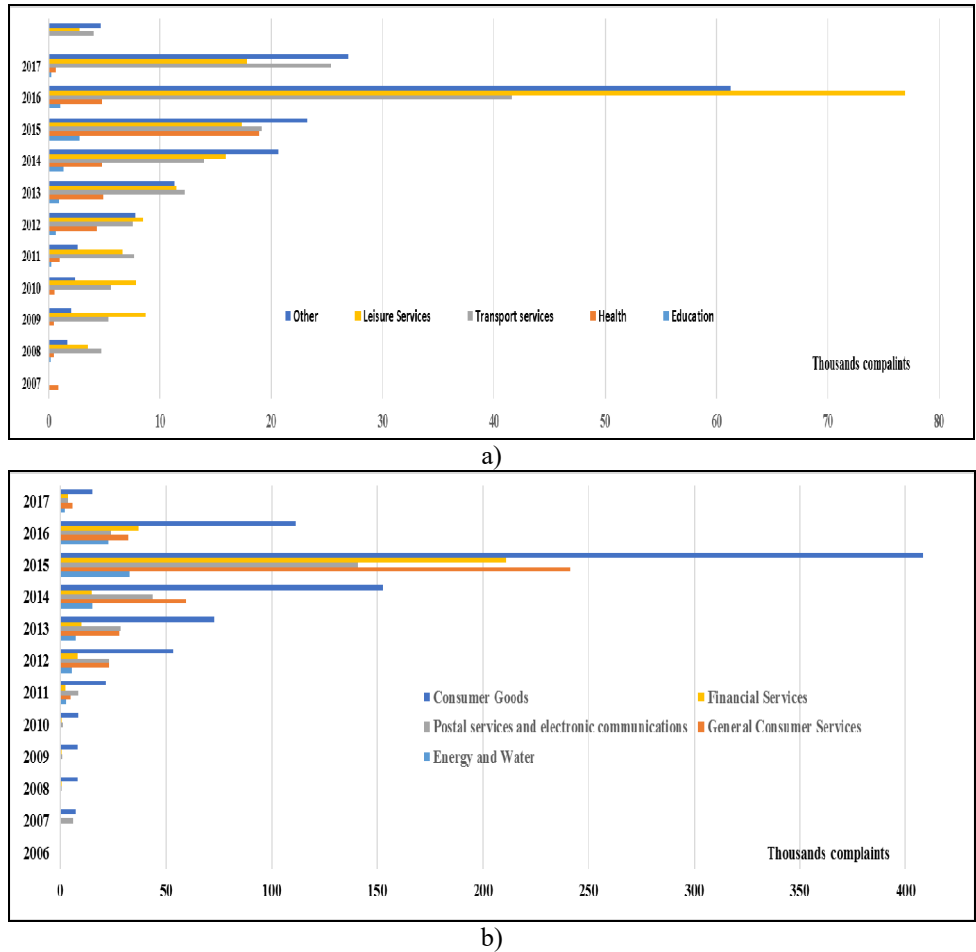
After the period 2010 – 2015, characterised by a sharp increase in the number of consumer complaints, the number of complaints decreased, reaching, in 2016, almost a quarter of the value recorded in the previous year. Among the main areas in which consumer complaints are manifest, we can mention: Consumer Goods, with over 35% of the total number of complaints, followed by Financial Services (11.77%) and Postal services and electronic communications (11.44%), respectively (figure no. 2).



**Figure no. 2: Main areas of complaints 2006-2017**

Source: Author, by using European Commission Data (ECCRS, 2017)

On the last places in the ranking regarding the European consumers' complaints are the following areas: Education (0.31%), Health (1.69%) and Energy and Water (3.60%). The evolution of consumer complaints, registered on the ECCRS platform during 2006 – 2017 is presented in figure no. 3 (a, b).

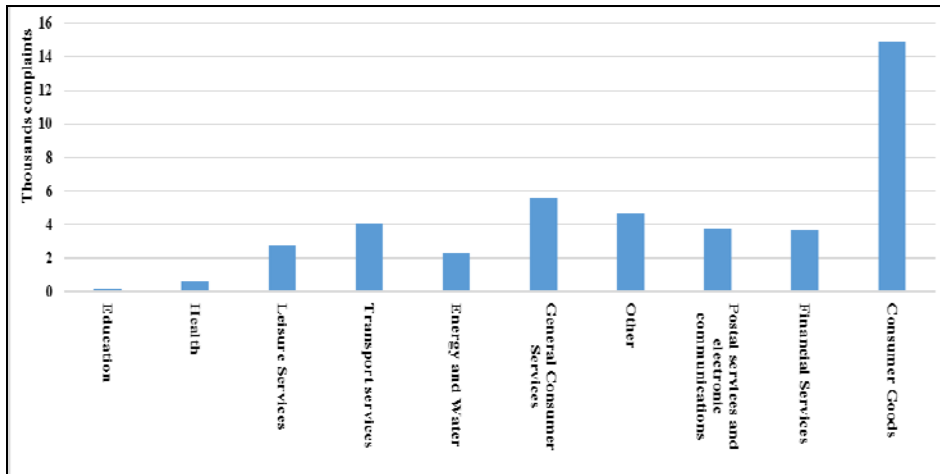


**Figure no. 3 (a), (b): Evolution of consumer complaints in the main areas**  
 Source: Author, by using European Commission Data (ECCRS, 2017)

According to the data presented in figure 3 (a), (b), the year 2006 can be considered an adjustment period for European consumers as far as the ECCRS system is concerned, the number of complaints being insignificant as compared to their cumulated value throughout the period evaluated. Basically, with the exception of the Consumer Goods area, in which there were 88 registered complaints, the total number of complaints submitted in the first year of operation of ECCRS was of 224, representing under 0.01% of the total. In the areas Health and Education there wasn't any complaint recorded in 2006 (figure 3a).

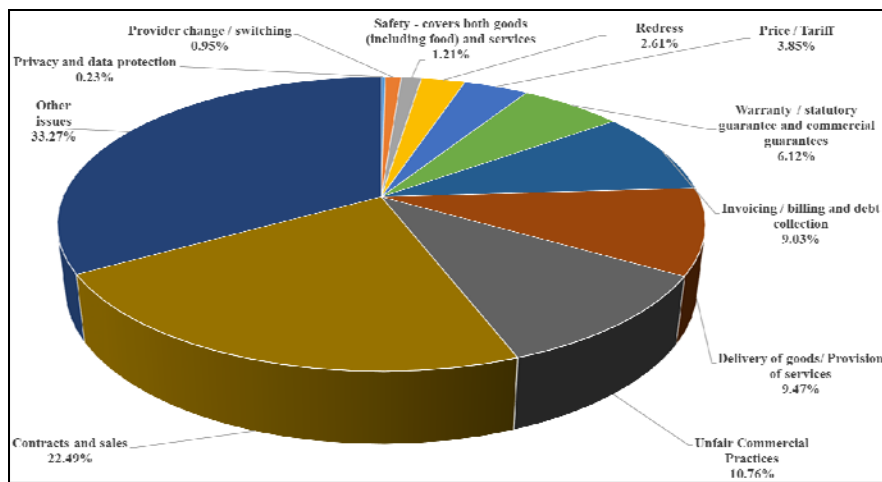
The first significant consumer complaints regarding the poor quality of Postal services and electronic communications (5969), Transport Services (4733), Leisure Services (3566), and Health (908) become manifest in 2007. The European citizens' complaints regarding consumer goods and services from the European market have a spectacular evolution during 2012 – 2015, period in which there are also registered over 75% of the total number of complaints made by using the European electronic system.

The first months of the year 2017 indicate a dramatic increase in the number of complaints regarding consumer goods, which, with 14,948 complaints, cover approximately 35% of the total number of complaints registered during the period January – February (figure no. 4). If this trend continues, chances are that the complaints made on this segment exceed the value recorded the previous year, by taking into account the fact that the main period during which most consumer complaints are registered is the holiday season, when consumption increases significantly.



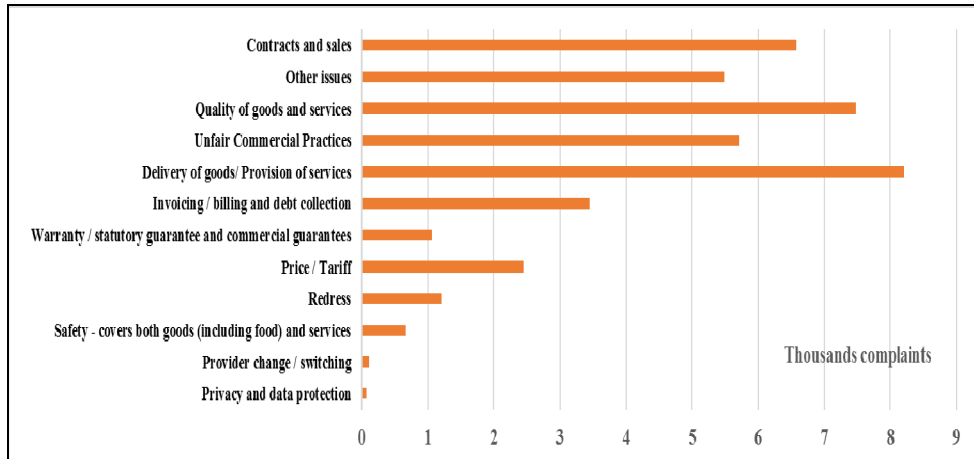
**Figure no. 4: Main complaints on areas in January- February, 2017**  
 Source: Author, by using European Commission Data (ECCRS, 2017)

The main causes of dissatisfaction for European consumers were Contracts and sales (22.49%), followed by Unfair Commercial Practices (10.76%), and Delivery of goods/Provision of services (9.47%) (figure no. 5).



**Figure no. 5: Main reason of complaints**  
 Source: Author, by using European Commission Data (ECCRS, 2017)

On the last places in the ranking regarding the causes of consumer complaints were Privacy and data protection (0.23%), Provider change/switching (0.95%), and Safety - covers both goods (including food) and services (1.21%), with the specification that, for these causes, the ECCRS records start from 2011. In 2017, almost 20% of the registered complaints were in the following areas: Delivery of goods/ Provision of services, followed by Quality of goods and services (17.60%), and the unfair contract terms in Contracts and sales (15.5%) (figure no. 6).



**Figure no. 6: The main dissatisfaction causes of European consumers in 2017**

*Source: Author, by using European Commission Data (ECCRS, 2017)*

On the last places in the complaint ranking in 2017, were the following areas: Privacy and data protection (0.16%), Provider change/switching (0.27%) and Safety, which covers both goods (including food) and services (1.57%).

### Conclusions

The paper focused on research regarding consumer protection at a European level and the modern complaint monitoring ways that could be used by the European consumers in the last decade by means of the ECCRS network. The topics addressed are of interest for the business environment, for the EU and national officials and for the consumers. The decrease in complaints, registered in recent years at a European level, indicates an increased efficiency of European policies in the consumer protection domain, the application of the best legislative regulations and of a number of efficient safety systems, and an increase in the quality of goods marketed on the EU market.

As a final answer to the question asked in the title of the paper (Could a complaining European consumer be happy?), as a result of the conducted research, we could assert that a consumer that submits a complaint can be happy when his/her complaint is addressed and solved and he/she realizes that the European consumer's protection system is efficient.

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## **AN ANALYSIS OF THE ROMANIAN MARKET OF HIGHER EDUCATION**

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### **Abstract**

In the last 25 years, Romanian higher education has been characterised by a number of transformations as a result of the need to modernise and to adapt to the business environment requirements, to the economic evolution, to the influence exerted by demographic factors or to the globalisation process. During 1995 – 2002, Romanian private higher education experienced a spectacular growth, followed by a sharp fall, which is manifest at present, too, due to the lack of qualified staff and of material resources adequate for an appropriate educational process. State universities had a relatively constant evolution in the analysed period, with slight fluctuations, which were mainly caused by demographic factors and the economic crisis. The present paper carried out an analysis of the national higher education system from the perspective of the tertiary education services market concentration degree (ISCED levels 6, 7 and 8), at an administrative and proprietary form level. The results of the study showed a high concentration degree of educational institutions at a local level. The market of higher education services, offered by state universities, is characterised by moderate values of the Gini Struck Index and by an average concentration degree.

**Keywords:** university, higher education, market concentration, Romania

**JEL Classification:** I21, I23, I28, D47

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### **Introduction**

After the change of the political regime, Romania has implemented a number of major educational policy reforms, which led to important transformations in the higher education sector. The main legislative provisions in the domain of Romanian higher education after the 1990s were as follows: Law 88/1993 (The Accreditation Law), amended by Law 144/1999; Law 84/1995 (The Law of Education, the first legislative provision after 1990); Law 288/2004, which enacted the implementation of the Bologna process stipulations and Law 1/2011 (The Law of National Education), which led to a new reform in the Romanian educational system. According to Law no. 288/2004, the organisation of higher education studies in Romania is made on three levels of education: Bachelor degree studies, Master's degree studies and Doctoral studies, each cycle being differentiated from the others by



means of distinct procedures of admission and graduation. The organisation of education level is the responsibility of each higher education institution and it must be approved by the Ministry of National Education (The Parliament of Romania, 2004). The external evaluation of the education quality is carried out by the Romanian Agency for Quality Assurance in Higher Education (ARACIS), an autonomous public institution, of national interest, with legal personality and its own budget of revenues and expenditure (ARACIS, 2017). ARACIS was created in 2005 as a result of the Government Emergency Ordinance no. 75/2005, approved with amendments by means of Law no. 87/2006.

The Report of the World Bank (WB) (2012) highlighted the fact that applying the Bologna Standards to the educational policies from Romania led to important changes in the structure of most educational programs and to a change in higher education financing, from the financing of input factors to a type of financing which relies on each enrolled student. This measure prompted a substantial increase in the global financing of education, and the application of the legislative provisions allowed a number of students to pay a tuition fee in state universities. Thus, a major income source became available for state universities, with positive effects on the extension and improvement of higher education quality. An increase in autonomy and in financing flexibility took place before the application of control measures. Also, according to the quoted report, the autonomy degree of tertiary education in Romania increased rapidly, mainly due to the minimal regulations imposed to the sector by the state, the period 1995 – 2005 being characterised by academic self-management and by an increased power of the higher education institution management.

An extensive presentation of the Romanian educational system is carried out by Drăgoescu (2013), who tries to make a connection between high school graduates and the higher education candidates. The application of the Engle-Granger test led to the conclusion that, between the data regarding the number of high school graduates, and the number of first year students in universities there isn't any causality relation. An analysis regarding the rural– urban inequalities from the perspective of the access to higher education was carried out by Voicu and Vasile (2010), who reached the conclusion that Romania is characterised by a low percentage of students who participate in tertiary education as compared to most European countries. The expansion of higher education initially led to an increase in the discrepancy between the urban and rural environments, phenomenon which has begun to fade lately. Nicolescu (2002) describes the changes that occurred in the Romanian higher education during 1990-2001, emphasizing the lack of a performant management at a national or local level. After 1989, Romanian universities received a *de facto* autonomy from the part of the resort ministry, yet only in a limited and inconsistent manner. Making reference to the local business environment requests and to the ability of the Romanian educational system to answer these requests, Nicolescu (2003) analysed the evolution and the performances of the graduates from the Bucharest state universities on the labour market. According to the study, it is necessary for the Romanian universities to lay the emphasis on the needs of the company, which are the main employers of higher education graduates, and to adapt the educational process to the business environment and to society requirements.

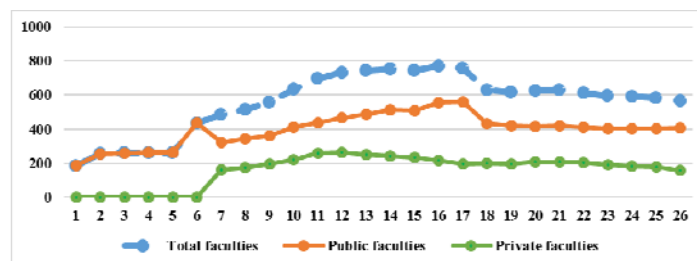
### **Material and methods**

The statistical data regarding Tertiary national education (ISCED levels 6, 7 and 8) were collected from the National Institute of Statistics (NIS) database, the Ministry of National Education (MEN) (by relying on the Educational Integrated Register - REI, and on the

Single Matriculation Register RMU), from the WB Report, from ARACIS, or from the analysed universities' reports. The collected information was statistically analysed by using the methodology recommended by Săvoiu, Crăciuneanu and Țaicu (2010), based on the Gini-Struck Index calculation. The results were graphically represented and interpreted. For comparison and documentation, we used the relevant domain-specific literature.

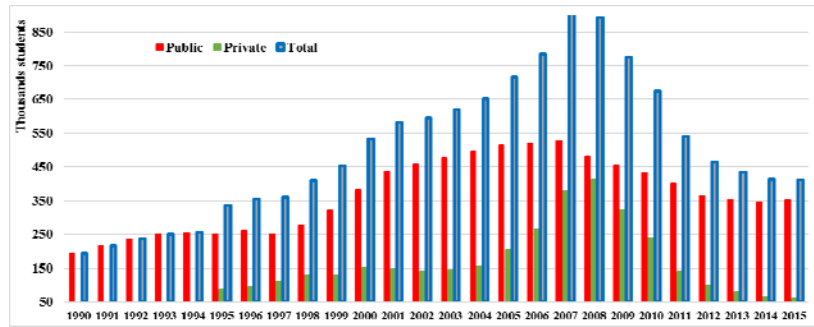
**The evolution of Romanian higher education institutions during 1990 - 2015**

After the change of the political regime from the 1989s, private higher education institutions in Romania could be legally founded, especially in the economic and legal domains. According to the NIS information (2017), in 1995, there were 36 private higher education institutions in Romania. In 7 years' time (1995-2012), due to a number of permissive legislative regulations, there was a spectacular increase in the private university system, in 2002 being reached a historic high of 70 private higher education institutions. The NIS data shows that the period 2002-2006 is characterised by a 20% decrease in private universities, followed by a slight increasing trend until 2009 -2010, with a number of 52 registered private universities. The current phase, which began in 2010, is characterised by a decreasing trend in private education, in 2015 operating legally 43 institutions in Romania, almost the same number of accredited private universities as in 1996. The decrease in the private education system in Romania can be due to the demographic evolutions, to the development of the tuition fee system, and to the economic crisis, which led to a decrease in revenues and to an impossibility to pay the tuition fees. Also, the activity of the ARACIS, played a major role in this decrease, starting an intense evaluation process of Romanian higher education institutions. In parallel with the evolution of the private higher education during 1990 – 1993, one may notice a 20% increase in the number of public higher education institutions, followed by a relative stabilization during 2012 – 2015 with 56 state higher education institutions. Correlated with the number of higher education institutions in Romania, one could also notice an increase in the number of public or private faculties, which increased from 186 (registered in 1990) to 770 in 2007, and 567 in 2015. As compared to private education the budgeted domain has a much greater number of faculties, which is sometimes two times or three times greater than the number of private faculties (figure 1).



**Figure no 1: The evolution of public and private faculties in Romania**  
*Source Author, by using NIS Data (2017)*

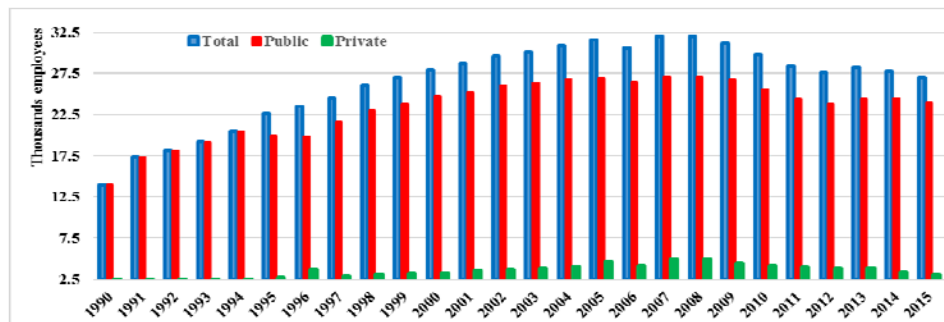
Thus, the number of students enrolled for Bachelor degree studies ranged between a minimum number of 192,810 in 1990 and a historic high of 907,353 in 2007. In 2015, there were 410,697 students enrolled for Bachelor degree studies (figure 2).



**Figure no 2: Students enrolled for Bachelor degree studies in the education institutions**

Source Author, by using NIS Data (2017)

In the analysed period, the percentage of students enrolled at private education institutions varied between a maximum value of 46.1%, in 2008, and a minimum value of 14.4% in 2015, much below the 25%, with which private education entered the official statistics in 1995. The increase in the number of enrolled students also led to an increase in the number of teachers employed (figure 3), although there was a certain discrepancy between the number of students and the number of teachers employed, and the material facilities required by the educational process.



**Figure no 3: Teachers employed in the Romanian higher education system**

Source Author, by using NIS data (2017)

In the analysed period, there was a constant discrepancy between the material facilities from state and private universities (classrooms/lecture rooms and laboratory class) (figure 4). Therefore, in the period 1990-1995, the lecture rooms and laboratory classrooms from the Romanian higher education were present only in state universities, those from private education being virtually non-existent in official statistics. Together with the development of the private educational system, we may notice an increase in its material facilities, which are, nevertheless, below the material facilities from the public system.

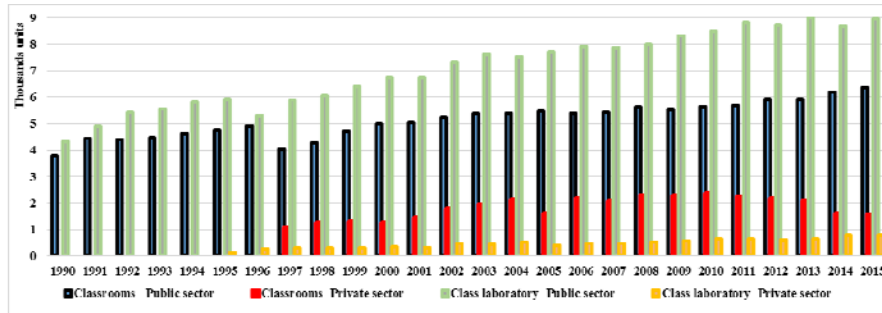


Figure no 4: Classrooms/ (lecture rooms and laboratory classrooms) in the higher education

Source Author, by using NIS Data (2017)

A similar situation is encountered in equipping universities with computers. Thus, from a total of 102,529 PCs from the Romanian higher education system in 2015, almost 90% belonged to the state education. Comparing the number of students to the total number of PCs per educational system, only after 2010 the values of the indicator begin to be close for the two forms of higher education. According to the NIS statistics (2017), in the private education system, there were 50 students per PC for each academic year, a situation which is slightly better than in 2001, when there were 57 students/PC.

The evolution of the ratio number of students/tenure teacher is presented in figure 5. The average for all the national higher education domains ranges from 12.55 to 28.39 students/teacher. The data shows significant differences between the number of students/teacher within the public and private education systems. For the private higher education there is a spectacular evolution of the analysed indicator, with a marked increase in the number of students enrolled during 2005 – 2010. The lack/shortage of specialised staff in private universities led to values of 80 students/teacher during 2007 – 2009. According to the ARACIS standards, the maximum ratio between the number of students and the number of teachers who teach a certain subject must be of 30/1 (Economics I and II), 25/1 (Legal sciences, Agricultural sciences, Veterinary medicine) or 14-17/1 (Engineering). It may notice that in private education institutions, the ratio between the number of students per teacher ranged from 32.59 (in 1995) to 84.12 (2008), with a minimum of 19.90 students/teacher (recorded in 2015), above the average of public institutions and national standards.

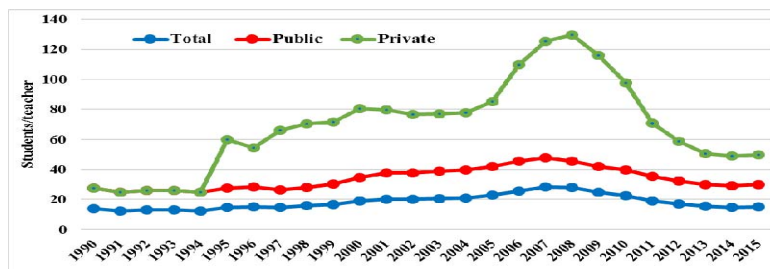
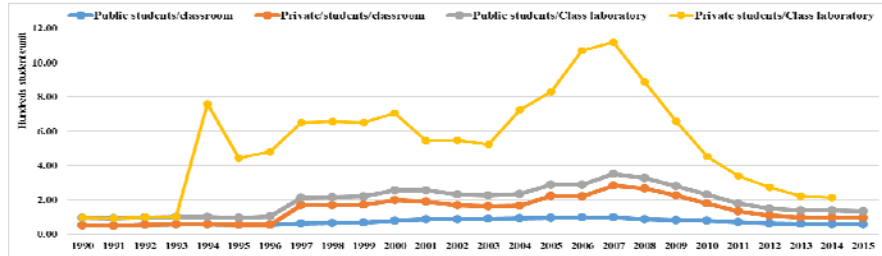


Figure no 5: The average number of students/teacher in the higher education system

Source: Author, by using NIS data (2017)

Lately, there has been a diminution of this ratio in the private education system, up to a value which is close to that from the public education system and which complies with the standards recommended by ARACIS. The evolution of the ratio between the number of students and the spaces (classrooms/lecture rooms, laboratory classrooms) allocated for the two higher education systems are presented in figure 6.



**Figure no 6: Students/ (classrooms, lecture or laboratory classrooms) in higher education**

Source Author, by using NIS Data (2017)

The data presented in figure 6 shows a major discrepancy between the values of the indicator number of students/lecture room in the public and private education. Thus, during 1995 – 2010, in the private education system, it was allocated a number of students per classroom with 50 – 100% higher than in the state education system. After 2010, together with the decrease in the number of students enrolled in the private system, one could notice a decrease in the value of this indicator, which descended below the level recorded in budgeted institutions. A spectacular difference is also recorded in the case of the indicator number of students/laboratory classroom, the values being 2-5 times higher in the private system as compared to the state system. The major difference can be justified both by the poor material facilities and by the prevailing theoretical character of the private higher education system. The distribution of higher education institutions is uneven at the level of the Romanian cities and counties. In 2015, Bucharest, with 39 institutions, representing 35% of the Romanian university system, dominates the national ranking regarding university cities, being followed by Iași, Cluj Napoca, Timișoara and Constanța. Almost half of the cities in which there is higher education have only one registered university (MEN, 2017a). According to the MEN statistics for higher education from Romania, presented graphically in “The map of higher education institutions in Romania” (2017a), in 2015, there were 111 registered institutions, which provided higher education programs, the list including state, civil or military, private, religious higher education institutions etc.

**An analysis of the public higher education services from Romania**

In 2015, there were 56 higher education state institutions recorded at MEN (The Educational Integrated Register REI, 2017 b), in which there were 446,843 students enrolled in the Bachelor degree studies, Master’s studies and Doctoral studies. The distribution of students on the three levels is Bachelor studies 75%, Masters 21%, and Doctoral studies 4%. Most students from state universities attend the Bachelor degree courses, the Master’s degree and the Doctoral studies representing only 25% of the total REI enrolments (MEN, 2017b). The ranking of state universities, depending on the number

of enrolled students, is dominated by the universities Babeş Bolyai, University of Bucharest, AI Cuza Iaşi and Politehnica Bucharest, which cumulate over 25% of the students registered in the state higher education system. The last positions are occupied by the Technical University of Baia Mare, the National University of Music Bucharest, UNATC „I. L. Caragiale" Bucharest and the University of Arts, Târgu-Mureş, where, in 2015, there were less than 0.5% of the total number of students recorded by REI at a national level (MEN, 2017b).

The concentration degree assessment of the higher education services regarding the state universities from Romania can be carried out with the help of the Gini-Struck Index (GSI), which was calculated by using the methodology recommended by Săvoiu, Craciuneanu and Ţaicu (2010).

$$GSI = \sqrt{\frac{n \sum g_i^2 - 1}{n-1}} \quad (1)$$

-  $n$  represents the number of terms of the series under study

-  $g_i$  represents the weight factor of students registered in the  $i$  university, related to the total number of students.

The methodology was applied in the paper in order to assess the concentration degree of the higher education services market at the level of Romania's counties and at the level of the university education public institutions. The obtained results after the application of the above-mentioned methodology, in order to assess the concentration degree of the higher education services market at the level of counties are presented in table 1.

**Table no 1: The concentration degree of the higher education institution market on counties\***

Indicator	Total tertiary education	Public	Private
Total universities (2015)	99	56	43
$\sum g_i^2$	1413.1211	2813.9375	1627.9070
N (Total counties)	24	21	16
GSI	38.3994	54.3561	41.6697
Concentration	high	high	high

Source: Author, by using NIS Data (2017)

\* The analysis does not include higher education military institutions.

The data present in table 2 indicates a high concentration degree of higher education institutions in the Romanian counties, with higher values of the GSI for public education as compared to private education, in both cases the index being higher than the value recorded at a national level. The concentration degree analysis of the services offered by the Romanian state universities is presented in table 2.

**Table no. 2: The concentration degree of the state higher education services market**

Indicator	Bachelor	Master	Doctoral	Total students
Students	336,563	93,822	164,58	446,843
$\sum g_i^2$	379.0491	461.9796	481.1179	371.8209
N (Total public universities)	47	47	47	47
GSI	19.6791	21.7256	22.1711	19.4906
Concentration	moderate	moderate	moderate	moderate

Source: Author, by using MEN Data (2017b)

The education services offered by state universities in Romania is characterised by moderate values of the GSI and an average concentration degree.

### Conclusions

The paper carried out an analysis regarding the Romanian higher education system evolution during 1990-2015, with a comparative presentation of private and state institutions. The spectacular increase in the number of students from private institutions during 1995 – 2005 was not supported by an adequate development of the material and specialised human resources, which led to a poor viability of the private tertiary education, which showed a marked decreasing tendency in the number of students in the last few years. The concentration degree assessment of the higher education services market revealed a high concentration degree at the level of counties and cities, Bucharest, Cluj and Iași being the main areas having higher education graduates. As far as state universities are concerned, the moderate values obtained by using the Gini Struck Index indicate an average concentration level of the budgeted higher education from Romania.

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## **THE IMPORTANCE OF ENERGY AND ENERGY RESOURCES IN ECONOMIC THEORY, WITH SPECIAL EMPHASIS ON RENEWABLE ENERGY SOURCES**

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### **Abstract**

During the historical development of economic thought energy is viewed only as an intermediate good. However, driven by problems in practice, economic theory is increasingly turning towards the adoption of energy as one of the key factors of economic prosperity. In classical economic thought energy is involved in economic activity across the country as a key factor of production, while neoclassical economics classify the land as part of the capital, as the country becomes productive only functioning labor and capital. Research interests were directed towards the primary inputs such as capital and labor and the intermediate inputs (energy) data indirect relevance. But the fact is that energy to the continuity and sustainability of overall economic activity, without production generally, would not be possible. It is certain that there must be some driving force that allows the factors of economic prosperity, such as land, labor, capital, organization, technology and knowledge in every economic sector and in every process of economic activities resulting in the growth of domestic product. This driving force is energy, because the production process (and economic growth as well as the final outcome) involves the transformation of matter from one form to another (ie the conversion of inputs ie. Raw material in the final product and that transformation requires energy. According to environmental economics and ecological economics is precisely the most important energy is the primary factor of production. From the above economic attitudes on energy arises goal of this work, and that is determination of significance and the role of energy in terms of economic theory.

**Keywords:** economic theory, energy, theory of economic development, economic evaluation of energy resources

**JEL Classification:** B13, E23, Q40

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### **Introduction**

From the time of Adam Smith and classical economic thought, land, labor and capital were considered the main factors of production and the main sources of economic growth. Over time, these factors added to the organization as a constituent of the fourth, and recently

added the knowledge or intellectual capital. During the development of economic thought in the whole economic theory, is generally not given direct and explicit the importance of the role of energy as one of the key factors of economic growth. Energy remains present and recognized in economic theory and practice as well as the intermediate, the current models of neoclassical economics; economic growth is attributed to technological progress and knowledge. Classical economic theory has held that the amount of energy available to a particular economy endogenously determined, of course, influenced by the biophysical and economic constraints (Stern, and Cleveland, 2004, p. 5). But, just energy to the continuity and sustainability of overall economic activity not only as a supplement to traditional (neoclassical) production inputs, but so that without it production would not have been possible. According to Alam (2006), each economic activity consists of energy flows that are directed towards the production of goods and services. Putting energy into the focus of economic activity identifies precisely the energy and the use of energy as an important source of economic growth and the indispensable driving force of all economic activities (Stern, and Cleveland, 2004). In other words, the economy should be seen as an energy system which consists of energy flows and conversions of energy resources in certain forms of energy, which culminate in the production of goods and services, and energy as a key source of economic growth, industrialization and urbanization. According to ecological economics is precisely the most important primary energy production factor.

### **1. Place and significance of energy and energy sources from the standpoint of classical economic thought**

Although representatives of classical economic theory emphasizing the key role of the country in economic growth, though not directly recognize energy as a factor of production. Namely, when the classics of economic thought using terms such as "natural fertility" (Adam Smith), "productivity and indestructible power of the soil" (David Ricardo), "natural and inseparable (inherent) power floor" (John McCulloch) or when the earth use the term "wondrous chemical workshop mixed materials and elements" (Jean-Baptiste Say) indirectly nonetheless highlight the fact that energy contributes to economic activity. Similarly, John Stuart Mill argued that the material contains "active energy which cooperates with work or even be used as a substitute for work" (Alam, 2008, p. 5). Also, identifies the different types of energy that contribute to agricultural production (such as: light, heat, wind, gravity) together with the other mentioned implicitly includes the classics of energy in economic activity. This inclusion of energy in the economic system was achieved by recognizing the country as a factor of production.

Classical economic theory divided the economy into two sectors, thereby defining agriculture as the sector with the labor and capital benefits the country as a third factor of production. According to one author (Kljajić, 2010, p. 579), even physiocratic school, which was created as a sharp reaction to mercantilism, were based on the fact that the earth is the only source of all wealth. Agriculture is, however, considered only the most noble, the most natural and most useful economic activity that produces pure product (fran. *Produit net*), ie. surplus value that exceeds the value of the entire work and *troškooa* invested in tillage (Lunacek, 1996, p. 243). Likewise, John Locke argues that the country ie. Nature has "enough for anyone and even too much, more than one who is not protected can spend" but that "he who appropriates land operation does not diminish but increase the common property of mankind, because inventories that serve man as a means of life

produced on hectare processed and cultured countries are ten times greater than those given just one hectare of rich countries standing fallow "(Rifkin, 2002, p. 36-37).

In connection with the rent Ricardo (1983, p. 104) says: "if any land had the same properties when the land would be unlimited in amount and equivalent in quality, would not be able to seek a fee for their usage except when had special advantages by position. Renta, therefore, pays for the use of land only because the land is not unlimited in quantity is not the same kind of quality and because population growth handle land of poorer quality and less favorable position. When, due to the progress of society begins processing second grade land appears immediately rent the land first rate, and the amount of that annuity will depend on the difference in quality between the two lands." Height land rents therefore varies according to the intensity of the treatment, according to the position of land towards the market according to the creditworthiness of land (Lunacek, 1996, p. 290). Thus, classical economic theory assumed that the earth is available in fixed quantities and sometimes variable quality. In the past, the so-called. Organic economies necessary condition for continuous and sustainable growth were abundant yields of the country ie. land. In these economies, virtually all the raw materials used in the production process were either animal or vegetable origin. If they were raw materials of mineral origin then it was necessary to use thermal energy (eg, smelting using wood and / or charcoal) converted into man-worker useful form (Wrigley, 2006, p. 435). Smith (1776, I.9.14) summarized the problem as follows: "In an economy that has acquired the entire wealth of the country and due to climatic conditions and that there are no more potential for progression nor regression, wages and profits are likely to be low." Ricardo (1983, pp.95) is solving the same problem came to a similar conclusion about the limited productive force of the country. According to Wrigley (2010, pp.243), ie increased use of coal. fossil fuels and, consequently, the first industrial revolution was the only exit option from the limitations inherent in all so-called organic economies. Although the energy in classical economic theory implicitly or rather tacitly involved in economic activity (through the country as a key factor of production), neoclassical economics distinguishes nature (earth) and energy sources.

## **2. The ratio of neoclassical economics to energy and energy resources**

Neoclassical economic theory does not even implicitly positions the energy in its macroeconomic framework while economic growth model for which Robert Solow won the Nobel Prize does not include natural capital ie. energy and energy resources. Neoclassical economics land that is set aside. land as a factor of production. The reason for separation is in the classification of land as a capital good due to the fact that the land becomes productive functioning of labor and capital (Alam, 2006, pp.154). The neoclassical economic thought classifies capital (and land as part of the capital) and the work of the primary factors of production, while, for example. fuel, raw materials and intermediate factors considered. Research interest is directed towards the primary factors of production and the intermediate inputs (in this case energy) attributed only indirect relevance. Some models of economic growth that include technological progress as an exogenous factor in trying to explain the role of technological change as a source of economic growth. Since in this model, energy and energy resources are not involved, the assumption of neoclassical growth theory is to be separated from economic growth in demand for energy resources and environmental services. The Solow growth model assumes that the production factors are mutually independent. This means that the change in the amount of one factor independent

of changes in the quantity of other factors which are considered as factors of production (almost) perfect substitutes. In this case, the resources are exploited or degraded service environment can be replaced by equivalent forms of other natural resources or physical capital, such as, for example, workers, machines, factories, etc. or equivalent substitutes can be used as a way to achieve stable and sustainable economic growth in times of scarcity of energy resources Solow model of economic growth once it was extended and as such included inputs ie natural capital. non-renewable and renewable energy.

### **3. Criticism of the neoclassical growth theory**

The neoclassical economic thought is not recognized as a key energy resource production while the Solow model of economic growth defines the economy as a closed system in which goods and services are produced using capital and labor. In such a system, the economic growth achieved by larger amounts and / or higher quality inputs invested or technological progress, and energy inputs have only an indirect role and treated as intermediate goods (Vlahinić-Dizdarević and Žiković , 2011, p. 6). Therefore, the growth is considered the major factor in demand for energy while only advanced economy with a high level of innovation capacity can reduce energy consumption and not slow down economic growth. Also, argue that the neoclassical economic paradigm literature on this point is somewhat limited. While business and financial analysts attach significant attention to the impact of oil prices and other energy on economic activity, neoclassical growth theory marginalizes the role of energy and energy resources. It was a significant increase in oil prices after the first oil crisis initiated a debate on the reasons for a slowdown in productivity and initiated a deeper consideration of the macroeconomic importance of energy resources. Until then largely limited neoclassical consideration of the role of energy and energy resources has become a subject of interest and criticism of various economic schools that do not belong to the so-called mainstream economy.

#### 3.1. Institutional economics

According to North (1994, pp.64), the institution designated formal constraints (rules, laws, constitutions), informal constraints (norms of behavior, conventions, self-imposed codes of conduct) and their enforcement. Institutions in the broad sense defined formal and informal "rules of the game" in society, that determine relationships between people (North, 1990, pp.80). In a narrower sense under the institutions are considered only organizational units, procedures and regulatory framework. Economic institutions are important because they affect the efficient allocation of resources, distribution of profits and the right controls. If institutions are defined to encourage those activities that increase productivity and reduce costs, then indirectly through the allocation of resources increase output and stimulate economic growth. Special attention is given to the transaction costs associated with the measurement and enforcement of contracts. Institutional changes and the development of institutions that increase the mobility of capital reduce the cost of information, reduce costs and improve risk-bearing contract enforcement, serves to reduce transaction costs, increase productivity and improve economic performance. Institutional Economics developed at the turn of the 19th and 20th century. New institutional economics has developed around the mid 70-ies of XX century as an alternative to the then prevailing liberal and neo-classical economic thought. That is, in response to market failures neoclassical economic theory.

#### 3.2. Development theory

After the first two oil shocks (1973-in 1974. 1980 and 1981)., The issue of energy resources has become very interesting in economic theory. Development theory and literature dealing

with the development of the administration during the 70s and 80s of the last century focused on the question of the influence of natural resources on economic growth and development. It was observed that the possession of oil, natural gas and other important energy resources does not necessarily lead to rapid economic growth. In the seventeenth century Holland poor in natural resources has surpassed Spain in spite of the influx of gold and silver from the Spanish colonies. In the XIX and XX century, Switzerland and Japan, although certainly more generally, do not have the energy and other natural resources, in economic terms, surpassed the natural resource rich Russia. Some East Asian countries such as South Korea, Taiwan, Singapore and Hong Kong have achieved high rates of GDP growth in the last 40 years, although certainly also more generally, do not have natural resources. This phenomenon is also known as i called natural resource curse.

On the other hand, in parts of Latin America and Africa (eg. Mexico, Nigeria and Venezuela), where natural resources are greater, you need a huge capital investment for their exploitation, and so much funding can be obtained with the sacrifice of a substantial portion of control over natural resources. Models associated with the phenomenon of the curse of natural resources are known as so-called disease models, and are based on the theory of Rybczynskog who came to the conclusion that the increase in the available amount of one factor with unchanged quantities of other and with unchanged technology cause a decline in production is that the product which intensify the use of Production factor which the available volume not changed.

### 3.3. Ecological economics

Although natural resources (energy) seem to get the importance of the extended neoclassical model of economic growth, it does not satisfy critics of neoclassical growth theory primarily Nicholas Georgescu-Roegen. It was among the first to comment on the lack of energy in economic theory. Georgescu-Roegen (1971, pp.318) noted that neoclassical economists abstracted, natural resources and energy flows in and that at the same time ignore the waste as a byproduct of economic activities. According to the understanding of Georgescu-Roegen, a new area of ecological economics claims that entropy imposes constraints to economic growth. That is, members of ecological economics argue that the so-called. physical dimensions of economic production requires greater attention and explicit in the theory of economic growth because economic systems exchange energy and matter with the environment. The economic system is seen as an open thermodynamic system with particular emphasis on the law of entropy. Ecological economics is a term for the "new" economy imbued with environmental requirements. She looks at the world of nature and society in an extremely different way from conventional economics. It examines the excessive use of materials and thermodynamic basis for economic activity and is focused mainly on the inevitable interaction between people and ecosystems in the broadest sense. Ecological Economics examined the fundamental relationship between the physical and biological systems, problems of ecosystem management in a sustainable way and the impact of social systems on ecosystems. The global economic system depends on four basic biological systems (agricultural land, fisheries, forests and grasslands). According to Rifkin (2002, pp. 323), these four systems not only provide all the food, but also, with the exception of minerals and oil, and all the raw materials for industrial production. This way of looking at the economic system involves the absorption of waste as a by-product of economic activity and preserving climate that facilitates human life. What is most important for ecological economics is to

give nature the laws of thermodynamics in the process of economic activity. In the view of ecological economics, energy is the most important primary factor of production.

#### 3.4. Evolutionary economics

If that is the availability, power consumption promotes economic growth and environmental economics suggests just that, there is an urgent need for the so-called, low carbon energy supply as well as the development and adoption of energy-efficient technologies. Evolutionary economy, under the previously-mentioned institutional economics, one of the areas relevant for the stimulation of non-polluting energy efficient technology. According to the conceptual definition, evolutionary economics focuses on the processes that bring constant changes in the economy, and thus affect all businesses (manufacturing and consumer) and institutions. These processes are the result of the action and interaction of various individuals (natural or legal) that make up the system (and want to maximize profit and survive in the market), and are based on information available to them, their determination, intent and ability to adapt. In simple terms this means that there is no one model can not be permanent.

According to evolutionary economics, economic model, like all other models, is subject to constant changes that are caused by constant innovation, primarily the so-called, radical innovation, because only they have the result of structural changes in the economy. It is a creative change (ie. Creative destruction) responsible for the creation of new technologies, new products and services which then consequently induces a new demand. So there is a certain degree of macroeconomic stability that market actors "destroy" the introduction of new technologies and innovation and thus ejected from the use of outdated technology. That is, the role of technology is to create a state of constant imbalance, and the greater the imbalance greater economic and social incentives to resolve it. These changes come as a natural process, ie. a certain form which promotes the evolution of the system. When a part of evolutionary economics mentioned "various individuals who want to maximize profit and survive in the market" can not be concluded that there is a similarity with the theory of Darwin's theory of biological evolution and the concept of survival of the fittest.

Environmental economics studies economic laws in korišćenju natural resources and protecting the environment. The basic assumption underlying economics of the environment is the recognition that the environment is not an entity that is separate from the economy but all the changes that are happening in the economy affect the environment and vice versa. In other words, the starting point of environmental economics is the concept that the market is not perfect the economic mechanism and effective instrument of resource allocation. Market driven by personal interests of individuals often do not give positive results, but the main reason, if the environment is considered as a measure of social utility, is the difference in what an individual will do so under the influence of a price that determine its production and what the society wanted to do with the standpoint of environmental protection (eg. a factory for the production of polluting the environment, or in the formation of prices of products does not take into account the damage that it causes to society and the environment because the resource does not have to pay, so the damage borne by the whole community). There is also the problem of joint ownership of the limited good. Namely, when a large number of individuals have (un) limited access to a common good, (eg, fossil fuels), each of which is guided solely by the interests of maximizing profits, then in the long run leads to the destruction of the common good, and in the end not used individuals who have caused the destruction of goods guided by its own interests. to mention the problem of public good, which is most pronounced when it comes to protecting

the environment. Privacy p,rotection of the environment is seen as a public environmental management and the environment as a public good, which does not fall into any competitive market and common to all. This means that an investment in a country's environmental protection can not be regarded as another country and does not create any competitive advantage, while the long-term adverse exclude any country from the environmental protection programs. According to Ayres (2009, pp.168), evolutionary economics has created an explicit and measurable macroeconomic model by which could be explained by economic growth in the past or have a more realistic projections of economic activity in the future. Such a complex undertaking would require economists knowledge of history, psychology, sociology, biology and physics. In conclusion, the economy of the environment by using economic instruments such as environmental taxes, permits for emissions trading, subsidies for environmental protection and ecological security seeks to confront and cutoffs with the above problems and to establish a permanent balance between economic growth and environmental quality.

#### **4. Endogenous growth theory and energy**

Endogenous growth models explain the reasons of technological progress by means of elections and economic decisions made by individuals and companies. An important implication of endogenous growth theory is related to the role of economic policy measures such as subsidies for research and development and investment in education. As for the technology in the energy sector, there is no perfect technology that could be the answer to the energy crisis. In fact, all conventional technologies that create greenhouse gases do not pay for the damage consisting of environment and climate. Therefore, it emphasizes the importance of correcting this situation of energy policy measures such as. Ecological taxes, limit emissions, incentives for use of renewable energy sources. According Vlahinić-Dizdarevic and Žiković (2011, pp. 9), even the endogenous growth theory failed to take into account the fact that endogenous technological change aimed at rational energy use and improve energy efficiency necessary for long-term economic growth.

#### **Conclusion**

Following the history of development of economic theory at the level of classical and neoclassical economic doctrine, especially the part that relates to economic growth, more precisely the role of energy in economic growth and development, we can perform a simple conclusion. Although the energy in classical economic theory implicitly (or rather tacit) involved in economic activity, neoclassical economic theory can completely ignore the energy, that distinguishes the nature (earth) and its energy sources that are implicitly included classics. Neoclassical economic theory does not even implicitly puts energy into their macroeconomic framework. Therefore, the role of energy is historical, theoretical and watching the models of economic growth is underestimated in economic theory. Even so understated that it is not the basic model of economic growth for which the Solow won the Nobel Prize does not include energy and so-called energy resources. Although this model was subsequently extended to non-renewable and renewable resources, as such, had its application in standard macroeconomics. Due to the country's isolation from the macroeconomic framework, neoclassical economics has broken any connection between economy and nature (natural resources), which led to the inevitable criticism from different economic schools (eg, institutional economics, development theory, evolutionary economics), primarily from by members of the so-called. Ecological Economics. With

formal paying attention to energy resources and their impact on economic growth and endogenous growth theory distanced itself in relation to the standard neoclassical theory of growth. Energy is one of the important, if not the most important cornerstone of the functioning of society and human life that ějednu economy. Many authors emphasize the fact that we are in the space of just two centuries of life passed from rural to industrial society, from hoes to computers, from hand labor to machine labor, and all this thanks to the energy. Produce, transmit, accumulate and innovate energy is an imperative of which depends on the growth or decline of society and the economy more generally. All social and ultimately economic activity associated with a dense network of energy that connects all production and service activities. When such a network would not exist, everything around us would collapse or would not have existed. In the modern world, the efficient provision of energy and its availability has a large and vital city and is the basis of the entire economic activity among countries around the world through innovation and technological progress. For good energy management tends to be a fuel consumption of equal benefits. Otherwise, the residual energy development becomes a limiting factor for economic growth because of energy shortages causing major disruption and significant production losses. According to the importance, power is put in the same category of essential activities such as production of food and raw materials provide the necessary amount of water. The lag in these forms of production limits the overall economic growth and development of a country. Thus, the problems of energy development can be seen and studied outside the context of the overall development of socio-economic system of a country, or even outside the context of the development of international political and economic relations. Given the indisputable theoretical and practical importance of energy can be concluded that it is a factor that is an important foundation for economic growth and development. The impact energy is omnipresent, and the economic, political, social but even psychological, and ethical consequences are mutually intertwined, not only because it improves the productivity of labor, capital, technology and other production factors, but also due to the fact that increased consumption affects economic growth.

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## **RENEWABLE ENERGY DEVELOPMENT OPPORTUNITY AS SMALL AND MEDIUM ENTERPRISES IN VIEW OF THE ECONOMIC, SOCIAL AND ENVIRONMENTAL SUSTAINABILITY**

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### **Abstract**

The theme of this work is very relevant, given that the development of renewable energy sources is a major challenge for the future of Europe and the world. The world economy is largely dependent on fossil, non-renewable sources of energy (oil, coal), as well as from nuclear power, which poses a potential threat to the environment and human health. Therefore the issue of energy security and stability has become in the last ten years, the most current from the economic, commercial and social aspects. The European Union, despite the high level of development and commitment issue of energy security is also facing the problem of reducing the environmental impact and role in reducing the human impact on climate. In this regard, one of the goals of this work is to prove the connection of the energy sector with konkurentošću economy. Model energy use and exploitation of natural resources to produce energy can be an engine for the development of a certain area or country, or if it does not take into account the environmental impacts in meeting energy needs, it can lead to the establishment of a completely unsustainable economic and social development. For this reason it is essential that further steps when it comes to planning the energy sector, to be implemented in a way that defines the priorities of the development of the energy sector, there is a public and professional support in order to simultaneously ensure economic development and to the principles of sustainable development. The sector of micro, small and medium enterprises, the base layer of the economy and represents an opportunity for development, but it is very important to promote and support the development of entrepreneurship in the economic field which is related to environmentally safe energy production. For the development of this sector requires good laws, effective procedures and predictable business environment. Projects relating to investment in renewable energy sources bring development opportunities or sustainable energy systems must include ecological, economic and social aspects of sustainability.

**Keywords:** Renewable energy, economic evaluation, SME environment,

**JEL Classification:** G23, Q25, Q28, Q42, Q48

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## **Introduction**

Already at the end of the twentieth century, the world was confronted, on the one hand with the growing need for energy, and on the other side with a relatively limited existing resources, and then starts to turn to other, alternative sources of energy and other possibilities. We are witnessing the beginning of a "boom" renewable energy sources. These energy sources are the only sustainable sources of energy and will have a central role in the future in energy. All research on new possibilities originating from one of the following sources: solar energy, geothermal energy from inside the earth, gravity and nuclear energy. The study Goldemberg (2004, pp.116) points out that by solar energy is the largest source of energy, and solar energy to the source several times higher than the rest of alternative energy sources, because it is inexhaustible, as long as there is sun (provided more than four billion years ago). However, the availability of the assigned resources, is not the only criterion by which to measure the energy source. It should take into account the following aspects: the way in which the source is converted into electrical energy, environmental impact and impact on health, both at local and at regional and global level. You should also discuss issues related to the guarantee of energy security, as well as the relationship between energy and poverty, jobs, sustainability of economic development based on the dominant participation of small and medium-sized enterprises.

### **1. Small and medium enterprises as the bearers of economic growth**

In today's economy, small and medium enterprises are the carriers of economic growth in all areas of production. For example, in 2015 in Serbia as part of the entrepreneurial sector operating companies 324 272, representing 99.8% of the total number of companies (324,766). The small and medium enterprises and entrepreneurs 64.8% of the employment generated by the non-financial sector hiring 761,539 workers and 65.4% of turnover and 56.0% of GVA non-financial sector. It is estimated that in 2014, SMEs accounted for about 32% of the GDP of the Republic. But only 1% of these enterprises in the energy sector related to energy production from renewable sources. Understanding the importance and contribution of renewable energy sources to sustainable development of the economy, 2015-the year in Serbia declared the year of energy efficiency and the 2016. was declared the year of entrepreneurship. According to the policies presented in the documents mentioned above, one of the main objectives of the European Commission was to increase the share of renewable energy in the overall energy consumption from 6%, in 1997, to 12%, in 2010; this threshold was exceeded by many European countries, and by the UE28 average. (Eurostat, 2015) In December 2008, the European Union adopted a package of regulations on "climate and energy", which obliges Member States to implement measures that aim at increasing the share of renewable energy to over 20% of Europe's total energy production until 2020. (E.C., 2011)

It can be said that, at present, renewable energy demand for electricity reached a high level worldwide, particularly in Europe. According to Eurostat (2015), the share of renewable energy in total energy consumption across Europe has increased from year to year, from 2005 to 2014 the best result among the EU countries was registered in Sweden. (Source: <http://ec.europa.eu/eurostat/tgm/table.do>)

On 1 January 2007, only slightly more than 1% of the global electricity was provided by wind generators (approx. 74,000 MW) (Duma, 2007) As far as wind energy is concerned, which is an important renewable source of energy across Europe, in 2008, it represented approximately 4.8% of the total EU energy consumption (E.C., 2011). Based on these

figures, it is expected that, by the end of 2020, this percentage will exceed 12 units, and more than 34% of the total electricity consumption will be provided by renewable energy sources. (Condrea, E., Condrea, A., Stanciu, A. C., 2016 : 61). The planned pace of renewable energy sources in the coming period in the European countries is a necessity and a prerequisite for sustainable economic development. A large contribution to this process have a medium-sized enterprises, given that the organizational forms that are highly adaptable to changes in the environment, as well as the challenges related to environmental protection. In fact, small and medium enterprises, encouraged by government subsidies, very quickly they are able to convert the equipment manufacturer to use renewable energy sources for energy purposes as well as for the production of different types of energy from renewable, locally available sources.

## **2. Renewable energy resources – technical and economic evaluation**

### **2.1. Solar energy**

The use of solar energy on Earth depends on the location, season, time of day, weather conditions, etc. Europe is not perfect territory for exploitation, but despite that in Europe the use of solar energy on the rise, thanks to the policies of individual countries rather invest in renewable energy, especially solar energy. Fundamental principles of direct use of solar energy are: solar collectors (heating water and rooms), photovoltaic cells (the direct conversion of energy into electricity) and focusing solar energy (use in large power plants). The obvious advantages of solar energy is that once the equipment is purchased, the use of solar energy is free. Then, solar collectors and panels do not emit harmful gases into the air, and their work is safe and quiet. Energy is produced at the point where it consumes so no long wires and cables. On the other hand, the disadvantage is that there is no sun throughout the day, or at night. Although solar energy can be used on cloudy days, the amount of useful heat or electricity is much smaller. Also the equipment needed for using solar energy is expensive, but over time becomes cheaper and more accessible.

### **2.2 Hydro energy**

For hydropower the biggest problem is to determine the available water to the pad, which determine the potential for the use of water energy. Precipitation and soil, as configurations, and determine the composition of both characteristics. It is common that for a given stream shows the mean value of the flow and dependence on altitude. For specific location is also a significant knowledge of a certain duration of water flow and usable pad. In order to obtain the flow duration curve, it is necessary to have access to multi-year measurements, as well as assessments of the sustainability of the watercourse, depending on the climate change and so on. Hydropower resources, it is possible to assess the knowledge or estimation of flow duration and reusable falls. The variability of flow has a significant impact on the ability to produce electricity at the plant economy, especially when the potential accumulation of water as small as is the case with small hydro power (SHP).

Using energy as a source of so-called position. mechanical power is known for centuries. Large hydropower plants can flood large field which could cause population displacement and to have undesirable environmental and social impacts, so that large hydro is not considered a renewable energy source, by some. Small hydropower plants usually do not cause these problems, which are typical for large hydro power plants. Small hydropower plants can contain all the elements that have a major facility and the biggest difference is significantly less need for extensive hydrological and topological studies, and to a lesser

extent the construction works. The turbine and generator are the most important and the most expensive components of hydro power plants. When it comes to work and choice of turbines, the difference between small and large hydro power plants is that the SHP is not necessary to use a dedicated ordered and manufactured turbine because there is already a large selection of finished and turbines and generators.

When designing MHE is very important to pay attention to the choice of location and equipment is cost-effective. It can be done only if it knows the usable flow duration curve, falling flow losses in the inlet, turbine efficiency, the volume of construction works and the most important is the ability to use electricity generated. Financial investment in the construction of hydro power plants depends on the location, strength, and includes the expenses of studies, provision of land, purchase of turbines, generators, construction, network connection, maintenance, etc.

### **2.3. Geothermal energy**

Geothermal energy is clean, renewable energy source from which all over the world can get heat and electricity. It is considered a renewable source because the heat is released into the interior of the country and is essentially unlimited. Geothermal energy is manifested in the form of hot water or steam and can be used for heating, for electricity generation, and for the purposes of direct heating for the Home, a constant source of heat for the production of energy and is therefore considered as a base of constant energy. Given that some renewable energy sources can be used only under favorable weather conditions, it is considered to have limited availability to meet growing needs. However, the availability of geothermal energy is over 90%, which means that geothermal energy can be used during any period of time. In a study published Sljivac and Simic (2009, pp. 8) states that the simplest and most promising way of exploiting geothermal energy is the direct use of thermal energy for various purposes in agriculture, industry, municipal heating etc. Also, this type of energy can be combined with other conventional methods of production of thermal energy or production of electricity from geothermal sources. According to the study (2009, pp. 52), the world's capacity to direct use of geothermal energy is estimated at 15 GWt installed capacity. Direct application is the largest in the area of heating the housing stock, and right behind the sports facilities, greenhouses, etc. Industry. Each country has its own peculiarities depending not only on the potential of geothermal energy, but also on many other factors. A particular example of using geothermal energy among the countries of the Island which uses over 50% of geothermal energy, mainly for heating, but also for melting ice and snow. Well-known locations in Serbia with the hottest mineral water is spa. The water temperature in the spa reaches from 980S to an incredible 1110S at the source.

Geothermal energy is, as mentioned, a source who has a problem with volatility. The fact is that this source can only be used at the site where the site and this is a limitation, which further implies that this is a big problem with the direct use of the potential problem for cities that are not near an electrical energy grid. Another obstacle when it comes to geothermal energy is the height of the investment, since it is necessary to allocate significant funding, especially for research findings.

### **2.4. Biomass**

Biomass consists of residues from industry, as well as municipal solid waste which can be used as fuel. Bio fuels are biogas, solid fuels, liquid fuels (biodiesel and ethanol), which are produced from oil seeds, as well as the energy generated from the fuel wood, etc. Bio fuels,

especially wood biomass in the last ten years, increasingly used for heating and electricity production. Mitic et al (2009, pp.86) concluded that the global potential of biomass such as to be out of it could provide twenty times more energy than the current demand for electricity.

Today in the world there are biomass / biogas and those using biomass / biogas for carrying out the activity of an electrical and / or thermal energy. There are small power plants up to 10 MW and large power plants over 10 MW. Then, the biomass in terms of fuel for power generation, which is considered a renewable source, are biodegradable material created, as mentioned in the agriculture, forestry and linked industry and includes plants and plant parts, residues and by-products of plants resulting in agriculture (straw, branches, seeds, etc.), the resulting residues of animal origin in agriculture, residues from deforestation, as well as a biodegradable residue in the food and wood industry, which do not contain hazardous substances. Biogas produced in the anaerobic processes of biomass, are fuel for energy production and is made of the residues in agriculture and residual biomass generated from the primary processing of agricultural products. Bio fuel is the only significant exchange for oil and diesel in the transport sector. In the case of biomass heating, use of renewable energy sources, obtained important dimension because it is justified due to the several advantages it has in comparison to other fuels, particularly oil and oil products. The use of biomass for energy purposes is justifiable from the economic, environmental and social reasons. From the economic point of view, increased use of biomass reduces the import and use of fossil fuels. On the environmental side, emission harmful gases classified in neutral biomass fuel. Then, the social aspect, the construction of factories for the production of biomass, and new jobs and accelerate the development of rural areas.

As a conclusion of this part it is important to point out that part of the waste may be used as the biomass, thereby significantly reducing the amount of waste that must be disposed of. At the landfill of waste, biogas plants prevent the release of harmful methane gas into the air and use it for the production of electricity and heat. Biomass does not depend on weather conditions, such as, for example, solar energy or wind power, and can be used at any time when the energy required. On the other hand, although biomass is a renewable energy source, it must be used carefully because the noise can not be cut without control.

### **2.5. Wind energy**

According to research by the Intergovernmental Panel on Climate Change (Intergovernmental Panel on Climate Change - IPCC), by 2050 almost 80% of world energy needs could be produced from renewable energy sources. Only wind energy can contribute as much as 20% this future mix of renewable energy. Wind energy currently accounts for only 0.2% of energy production and covers about 2% of the demand for electricity. Although there are doubts about the permanence of the wind, they can be solved by combining wind with other renewable sources such as hydropower and solar energy. Wind power plants have very low emissions throughout the life, however, have a number of consequences for the environment, which could affect their potential. Some of the consequences of the noise that turbine products, but with the advancement of technology and design improvements, noise is significantly reduced. Then, as a result of allegations of electromagnetic interference. The wind turbines can dissipate electromagnetic signals causing interference to communication systems. This problem is easily solved by placing wind farms in appropriate locations. As one of the most important arguments of those who are against the construction of wind parks is the protection of birds, specifically from

previous examples constructed wind farms in the world, it has been noticed that a flock of birds can be hurt by the turbine blades. The solution is to store the turbine outside the paths of migratory birds. Also with the advancement of technology, the sensors that detect the convergence of birds and slow down the operation of the turbines.

However, there is no economic crisis has failed to stop a long-term orientation towards the use of wind energy. Wind energy recorded rapid growth because it is technically the most mature of all new, clean sources of energy, and it's also the most competitive.

To sum up, the wind is a renewable energy source. Wind farms do not emit polluting gases into the environment. The terrain on which it is built wind turbines can be used for other useful purposes, such as for agriculture.

### **3. Production of energy from renewable sources as a development chance for small and medium-sized enterprises**

According to local regulations in force, which are largely harmonized with the EU legislation, the status of a privileged producer may acquire legal entities and entrepreneurs performing the activity of power consumption in the following types of plants:

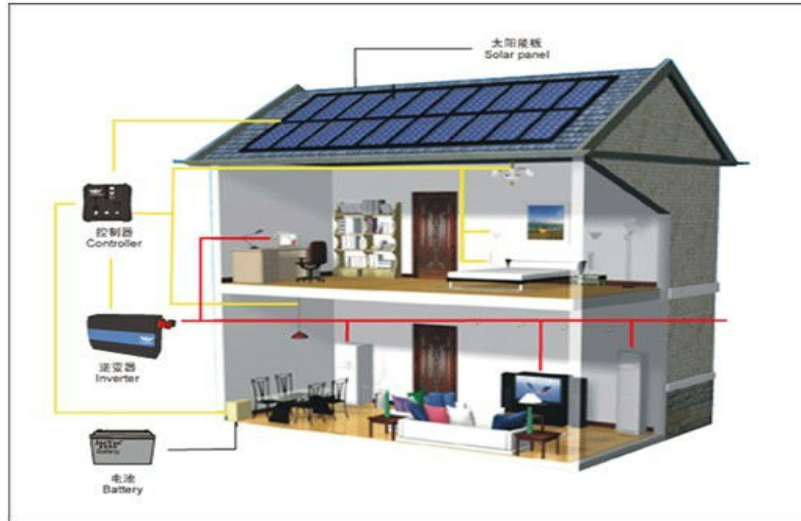
1. Hydroelectric power plant with installed capacity of 30 MW; 2. Hydroelectric power plant on the existing infrastructure of installed power to 30 MW; 3. Plant biomass; 4. Biogas plant; 5. Biogas plant of animal origin; 6. The power plant using landfill gas and gas from sewage treatment of urban waste water; 7. The wind power plant; 8. The solar power plant, or plant on solar energy; 9. Geothermal power plant; 10. The power plant waste;

Maximum total installed capacity of solar power which can acquire the status of a privileged producer or temporary status of a privileged producer is limited to 10 MW, and it in the following way: 2 MW of solar power to energy facilities sunlight individual power up to 30 kW; 2 MW power plants in the energy of solar radiation on the properties of individual power of 30 kW to 500 kW; 6 MW in power plants to solar energy in the country. Incentive purchase price (c € / kWh) in Serbia depends on the type of plant:

- Solar power plants on buildings up to 30kW installed capacity - 20.66; Solar panels on the buildings from 30kW to 500kW installed capacity - 20.94; Solar panels on the ground over 500kW installed capacity - 16.25. It is the current campaign being conducted in the media to encourage the use of renewable energy through obtaining the status of privileged producer. Electricity that is produced photovoltaic systems sold to the public grid at a preferential rate. In any case, not only photovoltaic systems saves money, but it is possible and wages. What is the need of equipment to make a solar power plant? 1. Solar panels - turn sunlight into direct current. 2. Power inverter - DC current produced by the solar panels via the inverter converts to AC power compatible with electricity in the public network. 3. The meter electricity - networked counter system is installed next to the existing electricity meters. It measures the amount of electricity in kWh to be released to the public network and shows how much electricity is produced by a photovoltaic system. 4. Example: Solar power plant with installed capacity of 5 kW on the roof of the building - The system consists of 18 solar panels connected in such a way to make the total installed power of 4.68kW. Such a system of monthly returns, on average, earnings of about 15,000.00 dinars (€ 120). It should 29m<sup>2</sup> roof surfaces. Value system: € 5,894.40 (VAT included). The value of an investment does not include installation costs, construction and equipment for installation. Payback period is 5 to 7 years, depending on weather conditions. What is important from the perspective of small and medium enterprises jested for each job

provides a complete service starting from the design of the project, to the as-built design. Projects must be made by a licensed engineer.

The team must be employed by licensed engineers architects who follow the latest trends in the design of modern system which guarantees high-quality performance of all activities in the field of design. Customers must be given more support in the pre-sales phase of work, the preparation of preliminary projects and education in order to ensure maximum effectiveness of equipment within the system that is projected. Standard practice is mandatory production of built project for all projects to be performed.



**Figure no. 1: Solar Power System / Home System**

It is important to establish what the situation in the countries of the European Union. “The political statements in Germany and the macroeconomic perspective present a big trend in expansion of new renewable energy plant. Especially institutional investors are looking for adequate returns of their investments to fulfill obligations in context with their statutes. With regard to the expected prolonged low-interest-rate phase within the European Union, further investments in alternative asset classes are planned in 2016. These alternative investments, particularly for institutional investors, are structured as closed-end funds, typically under the legal form of limited partnerships (Wassermeyer et al. 2015, pp.186). It will be differentiated between privileged investment funds and investment corporations. New regulations make it more difficult for investment funds to reach the privileged investment fund rules. The qualification of a privileged UCITS leads to a modified kind of net income method with special tax deferral effects of certain capital gains. Alternative Investment Funds (AIF) may also qualify as privileged investment funds, if they fulfill all necessary requirements. However, this failed because AIF typically are closed-end investment funds, which supply no right to return the shares regularly. The participation of a tax privileged institutional investor in a commercial partnership represent an own business within the scope of the investor’s activities, which means that the tax privileged investor solely loses its privileged status in the amount of the gain of that commercial partnership. Completely different, in the case of an investment in a limited partnership, where the partnership is asset managing, but deemed commercial, too. This leads for the



complete tax status of a privileged institutional investor like a pension fund to a complete commercial infection of all returns, the investor has generated. To find a way out of a partial or complete commercial infection of a tax privileged institutional investor, it is recommended to interpose a corporation (Maftei, M., Stiegler, T., Wiesener, A. U, 2016 : 188). Access to local sources of energy, their transformasanje into useful energy that has a secure client, in addition still ecologically pure and socially justified, represents a real opportunity for the development of the company, especially at the level of small and medium-sized enterprises.

#### **4. Aspects of sustainability energy system**

Sustainable Development of energy systems must include ecological, economical and social aspect of Sustainability, COP 21 (2015) –UN climate/195 countries about global warming reduction– or limiting temperature rise to 2 or 1,5°C by using RES.

Sustainability aspects of energy system: Economic sustainability: economic efficiency in all phases of production and exploitation of energy systems.

Investments in clean energy increased by even 17% › Markets of RES and oil are separate – 20% share of RES in production in the world electricity production

Economic sustainability: renewable electricity generation costs are dropping each year– the prices of PV modules have fallen by 60% wind turbines by 25% (relative to 2009).

Benefits: job creation, spin off benefits, etc. Combination of several energy types is necessary – rentability.

Environmental sustainability: responsible attitude towards resources, global warming, health the pollution. PROBLEM: harmful use of RES?! RES emit between 400 and 1000g CO<sub>2</sub> eq/kWh less than fossil fuels,, which is 14 and 134 times less , zero SO<sub>2</sub>, NO<sub>x</sub>, emissi.

Social sustainability: relationship of physical structure towards the changing needs of users.

› +/- social impacts – should be compared with conventional technologies, local economy improvement, energy independence – problem /wind turbines, solar fields.

#### **Conclusion**

Strategic commitment opening up of the possibility of direct usage of renewable electricity- in accordance with the requirements for the protection of natural and cultural values, reduce import dependency and the need for new energy sources – SPRS - SHPP (0,4MTen) , solar (2200 h/year-0,6MTen) and wind energy.

Recommendations: Adapt standards for the GHG emissions to the EU requirements, perform a detailed techno-economic analysis of RES, feasibility study for fossil fuels including transport, storage, the costs, strengthen the cooperation between the public and private sector, strategy for education and training of personnel who would work in renewable electricity generation systems, promote and raise public awareness. The main barriers to greater share of RES consumption lay in still not adapted legal framework and in inadequate stimulating policy, and prejudice of the local population - social factor is the has the main role in RES implementation. RES can be economically justified more economically viable than conventional energy sources – local initiatives needed.

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## SCRUTINIZING THE FUTURE OF THE ECONOMY

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### **Abstract**

The present paper presents an argument for a better framing of the business world forward looking perspective and for adopting a watchful attitude toward the future impact of current choices. The literature exploring future transformations in economy and society, although abundant, remains fragmented and, from a certain point of view, looks like having let behind some necessary clarifications about fundamental theories on which it should be grounded. This calls for revisiting the basics, the founding paradigms in economics and business. Therefore, a distance is here taken from concrete phenomena, in an attempt to provide a possibly new perspective on several concepts frequently tied to the representation of the future economy.

### **Keywords**

change, foresight, scenario making, social choices, economic development, business organization,

### **JEL Classification**

L16, L20, M20, N30, N40

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### **Introduction: The pressure of change**

The need to anticipate the future, which was always strong in the human history, is related to the fact that the word „future” is almost a synonym for „change”, which means „different” and possibly threatening. A relatively small proportion of the population takes change as an opportunity, while most people feel it as a threat. However, the dominant discourse invites us to consider future/change as a challenge, a sort of game restart when everybody gets again equal chances to win.

On another hand, at least in economy and social life, change is the result of human action, and – with a certain simplification - is a result of scientific and technological advances. In other words, mankind creates its own future. How the vision of a desired future is built upon perception of present realities was demonstrated and already used in mathematical modelling (Sheynin, 1988; Onicescu and Botez, 1985). Who is able to influence the current perceptions, is deciding the choice among alternative futures, no matter how deliberately or how legitimate it exercises such influence. This bring into discussion, from a

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sociological perspective, the issue of power and the emerging issue of post-truth politics (Amadae, 2017). Psychologists evidenced that for most people anticipation is biased toward „good” futures (Zhang, Gong, Fougny and Wolfe, 2015). It is generally accepted that change is the engine of progress, but sometimes, looking retrospectively we need to question the extent to which the outcome of former choices actually serves progress. Take for example climate change, or the issue of innovation acceleration through the lens of creative destruction theory (Komlos, 2016).

One should also take into consideration the accelerating rate of change. According to Kurzweil (2003), „The whole 20th century (...) is equivalent to 20 years of progress at today’s rate of progress, and we’ll make another 20 years of progress at today’s rate of progress equal to the whole 20th century in the next 14 years, and then we’ll do it again in seven years.” Although a number of scholars deny the acceleration phenomenon (Theodore Modis and Jonathan Huebner have argued—each from different perspectives—that the rate of technological innovation has not only ceased to rise, but is actually now declining.). In futures studies and the history of technology, accelerating change is a perceived increase in the rate of technological change throughout history, which may suggest faster and more profound change in the future and may or may not be accompanied by equally profound social and cultural change. If history progresses because of the synergistic interaction of past events and innovations, then as history does progress, the number of these events and innovations increases. This increase in possible connections causes the process of innovation to not only continue, but to accelerate. Burke poses the question of what happens when this rate of innovation, or more importantly change itself, becomes too much for the average person to handle, and what this means for individual power, liberty, and privacy.

### **Globalisation, the new economy and sustainable development**

These three expressions are among the most frequently used in economics and business literature and even in the daily conversations. Even though, their meaning is vague and ambiguous, allowing both legitimate and illegitimate interests to make use of them in support of their own agenda for the future.

For instance, referring to globalization we find diverging points of view, ranging from considering globalization a new era of colonization, to defining it as “an establishment of the global market free from sociopolitical control.” Tăchiciu (2003) has argued for considering globalization as a process of cultural fusion, an approach which is gaining grounds with the definition proposed by the Geneva Centre for Security Policy (Nayef, 2006): “Globalization is a process that encompasses the causes, course, and consequences of transnational and transcultural integration of human and non-human activities.” If current perceptions of reality which shape the vision of the future are influenced through means adapted to the cultural specificity, then globalization provides conditions for influencing the entire world’s choices.

According to the OECD Glossary of Statistical Terms, the expression “New Economy” describes aspects or sectors of an economy that are producing or intensely using innovative or new technologies. This relatively new concept applies particularly to industries where people depend more and more on computers, telecommunications and the Internet to produce, sell and distribute goods and services. While the sectors or intensely using innovative or new technologies tend to encompass the entire economy, the reference to “aspects of an economy” tends to cover a certain unease of economists to apply traditional

(neoliberal) paradigms to the (new) real economic world. Moreover, some use this expression to describe a (new) division between more and less advanced economies.

Sustainability has been defined as a state of society where living conditions and resource use continue to meet human needs without undermining the integrity and stability of the natural systems. A 2013 study concluded that sustainability reporting should be reframed through the lens of four interconnected domains: ecology, economics, politics and culture (Magee, 2013). The problem is if the concept of sustainability is compatible with economic growth. More recently the concept of sustainable development meets strong and credible criticism grounded on the finding that developed countries had experienced improved resource efficiency since the early 20th century already, but this improvement had been more than offset by continuing industrial expansion, to the effect that world resource consumption. The policy of perpetual economic growth for the entire planet remained virtually intact (Perez-Carmona, 2013).

### **Economics and Power**

It is long since science has understood that economy is a form or a result of human behaviour. Behavioral economics, along with the related sub-field behavioral finance, studies the effects of psychological, social, cognitive, and emotional factors on the economic decisions of individuals and institutions and the consequences for market prices, returns, and resource allocation, although not always that narrowly, but also more generally, of the impact of different kinds of behaviour, in different environments of varying experimental values. Risk tolerance is a crucial factor in personal financial decision making. Risk tolerance is defined as individual's willingness to engage in a financial activity whose outcome is uncertain. Behavioral economics is primarily concerned with the bounds of rationality of economic agents. Behavioral models typically integrate insights from psychology, neuroscience and microeconomic theory; in so doing, these behavioral models cover a range of concepts, methods, and fields.

A problem with behavioural economics (BE), from an operationalization perspective, and especially in the context of future anticipation, is the large diversity of human motivations. This is why BE has been left in the shade a long period, until the global financial crisis of 2008. Then, the BE came with a single word to explain how people decision making has resulted in such a disaster: greed. We propose a different point of view, trying to get a common denominator for economic behaviour, social relationships, psychological and emotional mechanisms, politics and policy etc.: the need for power (where power is defined as the capacity to influence other people. Here, we close the loop.

### **About the nature and future of firms**

According to Ronald Coase, the firm is a form of production organization adopted in order to avoid transaction cost (Coase, 1990), or, in other words, the cost of using the market mechanism in order to get a fair deal. The firm gives to a person (called entrepreneur) the power over other people (called employees) to decide about the way in which such other people use their creative power, in exchange of price, called salary. The question coming from revisiting this theory is what happens when the transaction cost tends to decrease close to zero as a result of new information and communication technologies? Giving credit to Coase the firms should reduce their size until completely vanishing, with the consequence that entrepreneurs lose their power.

From a different perspective, the evolution of current forms of production is governed by the interplay between mobilization (suggesting increase in capacity) and mobility (suggesting an increase of freedom in resource allocation). Thus, firms do not disappear but they gradually evolve in networks, from networked organizations toward networked individuals. This process can already be observed.

### **Food for thought**

Three interlinked factors have the potential to shift the global economy from one long-term outcome to another: aggregate demand, structural challenges, and diverging growth patterns. First, in the near term, the major economies continue to struggle to achieve self-sustaining growth in aggregate demand. This continues despite years of monetary and fiscal stimulus, as well as the recent drop in oil prices. Second, the world's major economies face long-term structural challenges, including rising debt loads, aging populations, and inadequate or aging infrastructure. Success or failure in resolving these structural challenges will determine the speed of long-term growth in these economies. Third, the world's major economies have increasingly diverged in the last few years. The world's major economies, emerging and mature alike, have been experiencing clearly divergent growth paths in the first half of 2015, in some cases due to unexpected challenges. These developments may signal the return of country-level business cycles, suppressed in the depths of the global economic downturn. Yet they may also be its lingering effects, suggesting that deeper forces are at work. We believe that three sets of forces will shape the global economy over the coming decade. The first two are stimulus policies and shifting energy markets. These are near-term forces, whose effects are felt on a daily basis. The next two forces, urbanization and aging, are powerful, inexorable trends aggravating ongoing structural challenges. Finally, two forces are of uncertain and variable magnitude: technological innovation and global connectivity. All of these trends could intermittently disrupt and transform sectors.

Unlike the variegated impact of demand stimuli and energy-market shifts, the effects of urbanization and aging are predictable and are tilting the global economy in one general direction: toward emerging markets. Increasing urban congestion and an aging labor force impose burdens—among them, lower productivity, falling demand, and rising health and pension loads—on all economies. The challenges are clear. The uncertainty lies in how economies will adapt to them.

Technological innovation has reached a level in the major economies where significant structural changes are in process or have already occurred. Digitization has transformed the telecommunications, media, financial-services, and retail sectors. Consumers are using mobile devices to connect to an ever-widening range of goods and services, while businesses embed such devices more deeply in functional processes and industrial activity. High-tech innovations in robotics and 3-D printing could enable mature and emerging economies alike to boost labor productivity and rapidly expand industrial horizons, while also shifting global trade patterns.

Day-to-day developments in the world economy have become increasingly complex and global in their implications. Economic shocks are now of greater concern because around the world, traditional policy tools have already been used and financial resources depleted to help economies recover from the last downturn. Strategic decisions have become correspondingly more consequential. Shocks are inevitable, but strategists must find ways to extract the signals from the noise to understand what's over the horizon.

The direction and potential impact of the factors considered in the present paper including driven by technological innovation and global connectivity are already familiar phenomena. As the science fiction author William Gibson remarked 15 years ago, “The future is already here—it’s just not very evenly distributed yet.”

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## **STUDY OF CROSS-CULTURAL CHALLENGES IN THE INTERNATIONAL BUSINESS ADMINISTRATION**

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### **Abstract**

International Business can promote creativity and motivational orientation to succeed through culturally conscious management, cross-cultural communication and innovative thinking. The objective of this paper is the examination of multicultural values along with the description of cross-cultural challenges in order to support the hypothesis that these principles have an impact on the organisational merit in the International Management. The methodology used involves empirical research based on qualitative methods. The case study presented will show that multicultural awareness is crucial, since the organization should be closely linked to the company's vision and overall business strategies based on comprehensive and relevant information, both from inside the corporation and from the market and the environment. The results indicate that today's companies must constantly adapt, develop and innovate, so that to handle the cross-cultural confronts of future international management. Finally, the author aims to investigate the applicability of a theoretical approach into practice and determine the principles and disciplines of the multicultural competences which are crucial determinants, as well as focusing on how the company manages the creativity and learning process towards more effective routines and business excellence.

### **Keywords**

multicultural awareness, cross-cultural challenges, business strategy, intercultural competence.

**JEL Classification:** M14

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### **Introduction**

Multicultural challenges in the business administration have become prominent as companies continue to increase their venture and the international marketplace becomes more manageable for businesses. Managing cross-cultural encounters through national identity, culture, language, tradition, history, and customs are all significant aspects, since embracing the cultural diversity of a country could bring success, but not undertaking it will increase the possibilities of inertia or failure (Bird & Mendenhall, 2016). Being aware of the enrichment factors, which lie behind the cultural thinking, will enable the members

of the corporation to better understand the cultural differences among nations. Therefore, teaching and learning about intercultural competence is a challenge to raise employees' awareness of their own culture, as well as to help them interpret and understand other cultures. Not just including a body of knowledge, but a set of practices requiring intelligence, skills, attitudes which make what culture is: an ocean of information about how people comprehend the surrounding world. As Takacs (2017:29) specifies Romanians, Hungarians and Germans in Romania attach significance to buildings and to places since within each of the regions the built heritage has played a distinctive role in defining the values of society, local distinctiveness, identity, so they can engender local pride and reflect on the substance of life and society.

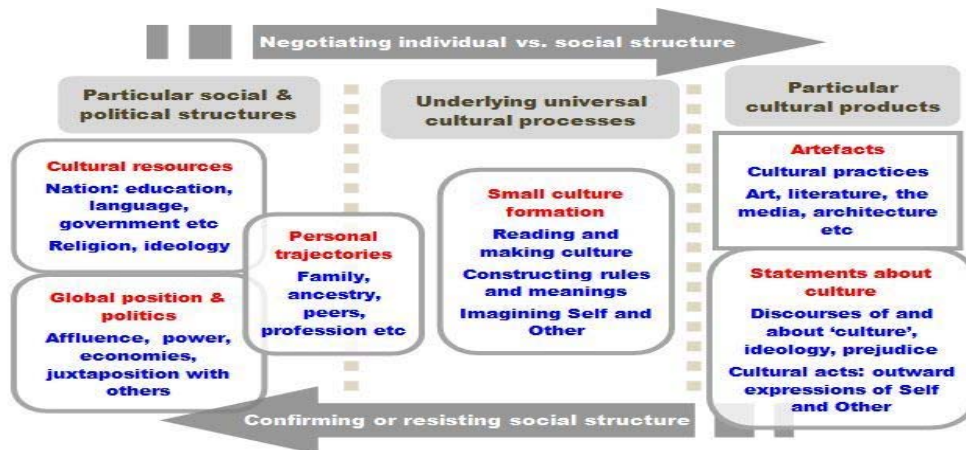
Intercultural awareness is the ability to be aware of cultural relativity, accordingly cultural awareness must be enabling language proficiency (Holliday, 2016). Therefore, culture is the core of language teaching, since language itself is defined by a culture, and we can only be competent in the language if we understand the culture that has shaped and educated it. Students can learn a second language successfully only if they have an awareness of that culture, and how that culture relates to their own first language or first culture, as well as accepting the role culture has in international business. Consequently, it is not only essential to have cultural awareness, but also intercultural awareness, since international business administration has to face the challenges and opportunities of working across borders and principles. The present study is also considered to be relevant to intercultural communication research because it arises cultural awareness. Therefore, the analysis of the motivations of intercultural awareness is expected to contribute to the culture-specificity in conceptualization.

## **Theoretical Aspects**

### **1. Intercultural Awareness**

International and cross-cultural companies are becoming more common, therefore business administration can gain advantage from an increasingly diverse realization and new, insightful approaches to professional efforts. However, as Holliday (2016) indicates, along with the benefits, global organizations also face potential tripping blocks regarding culture and international business. Acknowledging how culture affects international business in the four core areas of intercultural communication can help teams to elucidate misunderstandings with colleagues and clientele and surpass in a globalized business environment. Cross-cultural collaboration can be a challenge, thus forthcoming cultural differences with thoughtfulness, ingenuousness, and interest can help cross-cultural teams to put everyone at ease (Holliday, 2013).

The model *Grammar of culture*, according to fig. no.1, is characterised by open relationships representing a connection between the individual and national structures. According to Holliday (2013:31) three broad domains are found in the model of culture: particular social and political structures, the underlying universal cultural processes and particular cultural products. Thus, the interaction between the particular and the universal allows us to make sense of the particular. Therefore, the knowledge of representing and interpreting culture in international communication is different on the macro cultural level, with the result that misunderstandings can develop into conflicts, and these are much more likely to occur than is the case in intra-cultural communication between subcultures.



**Figure no.1: 'Grammar of culture'**  
 Source: adapted from Holliday (2013)

The interdisciplinary and comprehensive character of the label intercultural that has become particularly well-established in German-speaking countries often corresponds to various other designations, which signify a particular disciplinary preference or focus on the communication between specific groups:

*Power distribution:* the members of the society should follow the hierarchical line or the egalitarian ideology, which help them in defining positions and responsibilities within the organization. Therefore, senior management positions expect a certain level of formality and awe from junior team members, e.g. Japan bring traditional values, social hierarchy, status, and respect for seniority into the workplace. However, Scandinavian countries emphasize societal equality and tend to have a comparatively flat organizational hierarchy.

*Social relationships:* people can be individualistic or collective, or the degree to which individuals are supposed to remain integrated into groups or look after themselves. Positioning between these poles is a problem that all societies face.

*Environmental relationships:* people ill-use the environment for their socioeconomic purposes or they try to live in harmony with it.

*Work patterns:* *monochronic* people implement one task at a time according to a pre-set schedule in a linear way, but their focus is rather on information than people. People in *polychronic* time system lead multiple tasks and do not depend on indicated information, so schedules are open to change.

*Masculinity vs femininity:* refers to the division of expressive roles between the genders, which opposes harsh masculine and sensitive feminine societies. This duality is a prime element and societies cope with it in different ways: women accord more significance to social goals such as relationships, love and care, while men are more engaged with goals such as careers and money.

*Long-term vs short-term orientation:* refers to a cultural program, where delayed gratification of the material, social, and emotional needs are accepted.

*Uncertainty or social control:* the members of the society avoid uncertainties and are rule-bound or they are more relationship-based and deal with the uncertainties. The basic problem involved is that the society tries to control the uncontrollable (Hofstede 2001).

*Competitiveness*: According to Browaeys and Price (2008) competition among employees is stimulated to make the workforces more conscientious and more inventive, since the focus is on prosperity, performance and objectives, while in other cultures, job satisfaction is long-awaited and competition is not valued (Hofstede and Hofstede, 2005).

## **2. The disputes that generally outward in cross-cultural teams**

Cultural differences among team members may create misunderstanding during the working cycle, since the impact of cultural factors, language barriers, time differences, and socioeconomic, political, and religious diversity may stipulate a range of approved actions to encourage self-interest (Holliday, 2016).

Motivating team members may encounter significant obstacles in multi-cultural communications. The international ventures include cultural diversity, where members are constantly learning, thus training and educational approaches have an impact on attitudes regarding technology, practice, reinforcement, and interaction to which learners are accustomed:

*Inadequate trust*: the manager wonders why his teammates speak in their native language in the office but his teammates argue that when the manager is not around, they can speak in English, for example.

*Perception*: people from more developed countries consider employees from less-developed countries lower.

*Inaccurate biases*: generalized versions of cultural prejudices.

*False communication*: during discussions, different countries may have different non-verbal communicative signs, which can have altered meanings in cross-cultural communications.

## **3. The communication styles by the culture of a nation**

Intercultural communication receives a huge attention and thoughtfulness when dealing with business associates from different countries (Phipps, 2013). Outlining roles in multinational groups with diverse approaches and prospects of organizational hierarchy, thus can be seen why these cultural differences present a challenge:

*Direct or Indirect*: the messages are precise and conventional in the Direct style. However, the messages are more implicit and contextual in the Indirect style. *E.g.*, while the Finns may value frankness and swiftness, trades from India are more oblique and nuanced in their communication.

*Elaborate or Exact or Succinct*: in the Elaborate style, the speaker talks and repeats for several times while conveying his message across. In the Exact style, the speaker talks precisely with minimum repetitions while in the Succinct style the speaker uses only a few words with adequate repetitions and nonverbal cues.

*Contextual or Personal*: while in the Contextual style, the attention is on the speaker's title, designation or hierarchical relationships, in the Personal style the focus falls on the speaker's specific achievements and there is no or minimum reference to the hierarchical relationships.

*Affective or Instrumental*: in the Affective style, the interaction is relationship-based and meanings can be understood mainly through nonverbal cues. In the Instrumental style, the speaker is mainly goal-oriented and understands language with minimum nonverbal cues.

#### **4. Managing Cross-Cultural Differences**

Successful cross-cultural teams afford the core of skills and state-of-the-art views to boost the competitive position of their companies, and to determine potential communication barriers. Consequently, being aware of clients' cultural background is an important aspect, as this will give the advantage of conveying messages successfully (Chaney & Martin, 2011). Provided there are some level of disconnect, asking questions during the meeting to resolve any uncertainties is advisable. Furthermore, cross-cultural teams can definitely be confused by different meanings of disputes or jargons. Holliday (2013) suggests that there have been special studies with regard to the linguistic-cultural differences in realising requests, demands, refusals, apologies, justifications, compliments, thanking and similar face-threatening and face-saving speech acts. Germans have a greater preference for direct and explicit communication than the English, because the German culture characteristically shows a greater preference for avoiding uncertainty.

Many cross-cultural differences may occur at business dinners. Dining in the US can be a challenge for people from Eastern cultures, since many employees when realizing differences in etiquette do not dare to ask questions, not to look unprepared or unprofessional. Cultural intelligence is the aptitude to reveal certain manners, knacks and qualities, which are culturally adjusted to the principles of others (Peterson, 2004). Therefore, teaching the group how to cooperate effectively is particularly important when organizations are being overseas, consequently trainings should include sessions on all areas of intercultural communication, as well as business etiquette and negotiation customs.

#### **Methodology**

I conducted various informant testing to check whether students from 'Sapientia' University would be able to realize the significance of cultural identity. The aim of this experiment was to measure how and to what extent the intercultural awareness topic helps informants to realize the importance of intercultural values in a multicultural environment.

In the conduct experiment I hypothesised that learners, who know the importance of intercultural values, will figure out and keep in mind the multicultural assessment more easily than students who do not have such comprehension. I carried out a series of experiments, the results of which support this hypothesis. Accordingly, it is suggested that the motivational factors of the intercultural values should be clarified to students in order to achieve better results. In the experiments I have assessed the effect of principles having an impact on educational cooperation practices and semantic features of cultural entities. The experiments also involved students' awareness of intercultural and multicultural motivations. I have likewise examined whether learning cultural principles can be achieved under task designs that give less explicit guidance and which help students to learner autonomy. Thus, students were asked to identify cultural canons themselves, while they were shown pictures illustrating implicit cultural values in order to stimulate dual coding.

The results of the experiments have been analysed with a view to providing steps towards concrete applications. The presentation and differences among students have the potential to influence their achievement in certain courses for advancing cultural awareness. Specific variables suggested include the characteristics of the cultural morals to be taught, cross-cultural interests, scheme, and other learner characteristics, such as students' level as well as their aptitude.

### **Case Study**

The case study provides a rather detailed examination in order to reveal how educational resources are used regarding cultural awareness and it is also meant to bring the cross-cultural traditions side by side through a qualitative analysis.

Participants in the experiment were two parallel groups of second year English majors at the Hungarian University of Transylvania. The students were 19-22 years old and their English was advanced, approximately C1 level. The control group consisted of 20 students and in the experimental group took part 25 students.

The experiment employed identical material and instruction in both groups, with one main exception: the organization of the cultural connotations to be learned. The experiment consisted of three testing; all designed to examine the effects of learners' knowledge of intercultural motivations. The assessments were carried out with the same materials but similar, though not the same techniques were taken into considerations. The pilot study had revealed that all the students were familiar with the lexis targeted in the experiment.

The method used in these experiments consisted of two one-page handouts. The first sheet presented the input: a test containing 20 questions regarding intercultural knowledge. The second sheet contained a gap-filling test. Students in both groups were accustomed with the frequently used concepts, as well as the central meanings of the given context. Nevertheless, examples of these ideas were included in the instruction and testing processes, since the general meanings and cultural concepts that would be targeted in the experiment largely depended upon these meanings. The difference between the experimental and the control group was in the manner of presentation of the cultural connotations to be taught. While the control group were taught the English concepts through Hungarian equivalents, the experimental students were taught with the Cognitive Linguistics approach, consequently, I explained the most important motivating factors to them. For each group, the instruction and the organisation of the tests were divided into two parts. Gap-filling tests followed each of the stages of the tutoring procedure, as well as one day after the two-stage lessons an immediate testing process, finally, a post-test was directed to each group.

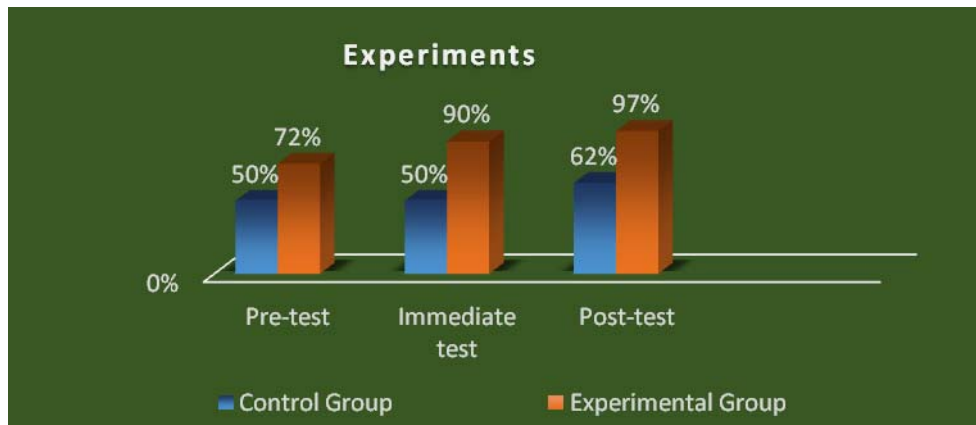
### **Results**

The responses to the pre-test, immediate-test and the post-test of both groups were analysed, taking into account the completely correct responses, then including cultural comprehension in the second part of the tests, which were not entirely correct but in which the key concepts were given correctly. It was also interesting to check whether students were able to make a distinction between the senses of cultural connotations, which was the primary aim of the testing.

As can be seen in Fig. no. 2, in both the immediate test and the post-test, the experimental group outperformed the control group, and a statistical significance was also obtained across the board. The difference between the pre-test and the post-test shows that the performance by the experimental students increased on average by 25%, whereas the performances of the control group increased by only half this rate, 12%. The experimental group did noticeably better in the two tests. Including target conceptual answers, they actually obtained scores in the post-test of 97 %, while the control group 62%.

The scores in the assessment prove the development of the experimental group; specifically, the experimental group outperformed the control group and especially in the

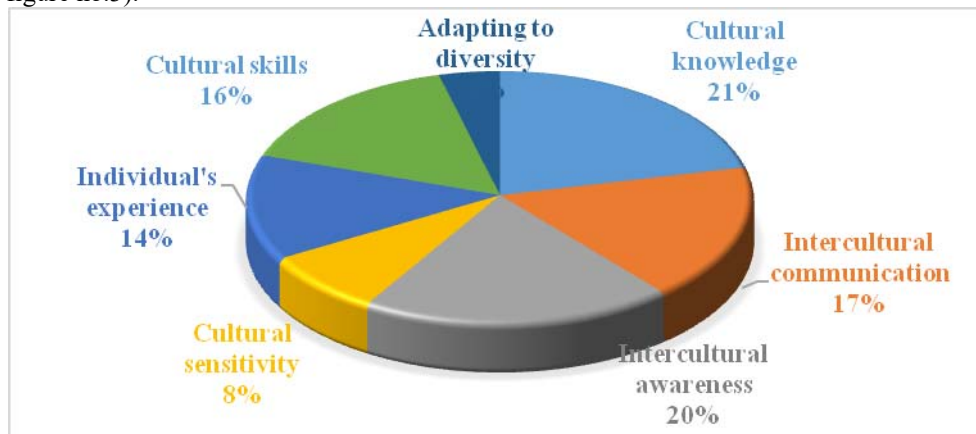
post-test. Taking only completely correct responses into account, submit a significant result for the immediate test, and also a noteworthy outcome for the post-test.



**Figure no.2: Experiment results**

*Source: author*

During the second phase of the experiments the students also highlighted the key factors that affect cross-cultural competence. Accordingly, the highest percentages were registered in case of cultural knowledge, intercultural awareness and intercultural communication (see figure no.3).



**Figure no.3: Experiment: key factors that affect cross-cultural competence**

*Source: author*

On the whole, the experimental results support the hypothesis that the precise comprehension of appropriate meanings in the experimental group help students to become culture conscious. Accordingly, maintenance of the multiple senses and uses of cultural awareness can be improved by employing insights from cooperation cultural practices. The results of the experiments cannot be applied as an acceptable exposure to turn intercultural

awareness into a learning strategy. An extensive syllabus seems to be needed to complete this task in the forthcoming curriculum.

The limitations of the experiments because of the number of participants make it impossible to represent definitive conclusions concerning teaching intercultural awareness. The experiments could be simulated or developed in several ways. I am also aware that various teaching strategies may correlate and in cooperation determine learning results.

Many questions remain, and further research is needed to conclude, for example: How much explicit educational practice is required to increase employees' cultural awareness adequately to apply it effectively as a learning strategy?

### **Conclusions**

Starting from the idea that intercultural awareness varies to a great extent across cultural boundaries and they are illustrative for the way in which cultural constraints may affect international businesses, I made a contrastive study of intercultural awareness in order to see the extent to which these impacts have on educational practices and features of cultural entities. The recent emphasis on educational properties in cultural research needed to be complemented by in-depth analyses of the intercultural awareness, which provided and guided access to the theoretical domains. The reason for this kind of exploration has been ingrained in the academic model, thus the case study meant to be a contrastive analysis of educational data for reasons connected to the methodology of research and leaving room for future cross-cultural expansion. The theoretical framework was broadly based on the previous studies and has been devoted to reveal the underlying cultural patterns and their conventionality with some of the differences. In conclusion, having a high level of cultural awareness and intercultural competence is now key when working across borders and cultures. Rating cultural awareness as an optional skill can come at a cost for a company working globally. Therefore, cultural and intercultural awareness are essential for all employees working across cultures. It is a skill that can be developed at both professional and social levels, and can make an overseas assignment, an international business meeting or cross-cultural negotiation a successful one. However, a lack of cultural awareness can lead to major miscommunication, and, ultimately, rejection by host-culture colleagues or clients.

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## BENCHMARKING – THE INSTRUMENT FOR QUALITY ASSURANCE IN HIGHER EDUCATION

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### Abstract

Main purpose of quality management within an institution is guidance towards performance in all its dimensions of activity, as well as maximizing this performance. In European universities they organize benchmarking activities based on so-called „codes of good practice” and whose goal is knowledge and study „of the best practices”. By means of benchmarking educational establishments wish to identify performance deficiencies, identification of opportunities and difficulties, identification of strong points and of areas that need improvement, obtaining an objective evaluation, justification of methods, resources and current practices, in comparison with competitors or organizations that use similar functions or processes. In Romania, the institutes of higher education approach two benchmarking methods: evaluation benchmarking, implemented since 2005 by Romanian Agency for Quality Assurance in Higher Education and benchmarking based on data, with the purpose of comparing performance levels of two or more organizations.

**Keywords:** benchmarking, quality, higher education, performance, methods

**JEL Classification:** M1; M10; M19

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### Introduction

The concept of benchmarking is frequently used both for improvement of strategies and as an instrument for quality assurance, having different approaches around the world (ENQA, 2003). It can be defined as a “continuous and systematic process of measuring labour processes of an organization and comparing them with those of other organizations, bringing an external point of view about activities, functions and internal operations” (Kepner, 1993). In this context, there can be presented two well-known definitions of Benchmarking:

„Benchmarking is used to effect comparisons with other organizations and afterwards to learn the lessons provided by these comparisons.” (European Ethical Code for Benchmarking).

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Benchmarking is a continuous process of products, services and practices measurement, comparing them with the strongest competitors or with those companies considered to be leaders in a certain domain (the best in their category)". (Xerox Corporation – Initiators of benchmarking process).

Public and private organizations utilize this technique of improvement on administrative operations and institutional standards by examining the operations and standards of other institutions and adapting them to their own techniques and approaches.

Another major advantage of Benchmarking is the fact that this instrument is quite simple to implement and perform. Basically Benchmarking asks questions and then tries to find answers to (Kepner, 1993):

- How much better are our results compared to others?
- How good do we want to be?
- What are our objectives?
- Who is doing a better job?
- How does one do their work?
- How can we adapt their accomplishments to our institution?
- How can we become better than the best?

By finding the answers to these basic questions, combined with a structured approach and implementing an appropriate methodology, we can benefit from valuable results.

At the same time is important to know the stakeholders opinion about the performance of the educational organization and to find the best ways to have their cooperation and contribution (Grigorescu, Olteanu, 2013).

#### **Using Benchmarking in Institutions of higher education**

European convergence and internationalizing of higher education, keen competition and increase in demand impose upon higher education institutions the implementation of certain strategies in order to maximize the quality of their offer (study programmes and services) and to assure their competitiveness. A big role is played by quality assurance for study programmes and services offered by higher education institutions. Among various strategies and improvement techniques, such as Total Quality Management (TQM) or Continuous Quality Improvement (CQI), Benchmarking asserted itself as a useful instrument, easy to understand and efficient to assure and improve competitiveness (Alstete,1995).

Institutions with benchmarking experience describe this concept as a modern managerial instrument and an efficient method for quality improvement, which leads to growth of efficiency and important improvement within the institution. A practical reason for the success of this method is represented by the opportunity to benefit from other people's experience, which might lead to a collaboration, that being a simple and practical method (ENQA, 2003).

The main opportunities presented by benchmarking in higher education institutions are:

- Identification of performance deficiencies between institutions and other;
- Identification of opportunities and difficulties in future development or improvement of old standards;
- Identification of both strong and weak points: strong points or major weakness can be identified after permission to study the processes of others;
- Receiving an objective evaluation, the so-called "critical eye", in order to objectively study the current performance, without being drawn into a paradigm;

- Justification of methods, resources and current practices (and vice versa); we can see that we operate at a decent level.

The comparison with competitors or with organizations with similar functions or processes can be made between different types of institutions but also between public and private organizations (for example: human resources management). Using marketing the education institution have the opportunity to analyse the education services market and know better the expectation of the citizens and the position of the competitors (Grigorescu, Olteanu, 2011).

#### **Advantages and concerns of Benchmarking in higher education institutions**

Benchmarking is mainly fitting to higher education institutions as it based on practical information and research and evaluation methodology, and this type of concern is well-known to managers and lecturers. By implementing Benchmarking on higher education institutions, it was observed that this helped fight opposition to change by providing specific and real role models, it also came to an external evaluation structure, it created a new communication network and it enabled the exchange of valuable information and experiences. Aside the substantial proof of benchmarking positive effects, there are arguments against this method. Such argument for instance is the perception that it is just a euphemism for copying, a lack of innovation, it only has a limited capacity to improve existing processes and to expose institutional weaklings. Nevertheless, evidence clearly shows that Benchmarking can lead to radical changes of innovation process, by “adapting” instead of “adopting” the best practices. Also, by observance of Benchmarking Ethical Code, the concerns regarding privacy can be diminished (Alstete,1995).

#### **Important factors for a successful and efficient benchmarking**

Whether it is carried out as a national exercise for an entire department, or for specific institutions (within an institution or between higher education institutions) benchmarking must always focus on the identification of strong and weak points and on a better apprehension of institutions, in order to detect objectives that need improvement. Benchmarking requires a main focus on continuous improvement by a comparative approach and by searching the best practices to be more than a comparison of statistics. A benchmarking exercise should always be conceived as a dynamic exercise whose indicators and relevant comparative evaluations can be measured in comparison to other competitors. Its purpose is to identify good practices that lead to changes implementation. Within the higher education institutions, successful benchmarking exercises are based on an institutional desire to augment the performance of the organization, to become a learning organization, to continuously revise the processes, to search for new practices and to implement new performance methods. A benchmarking exercise, even if it unfolds within one department (faculty) or within the entire institution, it will bring results if it is placed in a context of transformation and progress. It is important to see if efforts will come to maximized results by constantly setting new objectives of institutional improvement.

Benchmarking requires a commitment to change, the need to invest in financial and human resources and the involvement of institutional management and staff (for example, depending on the processed of comparative evaluation) to produce efficient results in collecting data and application of conclusions. Financial resources will be smaller in the case of benchmarking exercises ran strictly within the institution than those unfolded with the help of a chartered external consultant or mediator, but they will always require a minimum level.

The concept of Benchmarking does not represent a fast solution to remedy an unsatisfying organizational performance. Although it can be used to provide a fast change (an instrument to obtain information about a certain issue), it is more valuable when used for continuous approaches, for a long term strategic development of the institution, to sustain the constant effort to improve the performance of the institution. The concept of benchmarking requires a strict and professional approach beginning with the exercise project and ending with the clear identification of the processes, data collecting and implementing the results. This implies planning and involvement of managers and owners. Choosing partners for benchmarking is crucial for the effectiveness of the exercise.

Organizationally, there are many benchmarking methods. *Public Benchmarking* can be compared with analyses made by magazines for consumers of certain products or services. *One on One Benchmarking* consists of collaboration between organizations representatives to benefit from mutual experience in order to improve its own organizational structure, its own practices and products or services. *Evaluation Benchmarking* is set by specialists from outside the organization and it consists of identification of strong and weak points, best practices for improvement guidelines or to facilitate improvement of certain activities (an example in this sense would be ARACIS evaluation for higher education). *Data Benchmarking* consists of provision of certain profile data by all the participants subsequently compared to certain levels of performance. Probing Benchmarking tests the products and services provided by other organizations and compares them with those furnished by their own organization. *Inquiry Benchmarking* is usually carried out by an independent organization that administrates consumers/clients' questionnaires in order to register their perceptions regarding the quality of the products/services provided by an organization. They often measure perceptions which consumers/clients have in regards to quality (strong or weak points) of the same type of products or services provided by different organizations.

In Romanian higher education they approach two benchmarking methods: *Evaluation Benchmarking and Data Benchmarking*. In Romania, evaluation benchmarking is implemented on the educational system since 2005 by the Romanian Agency for Quality Assurance in Higher Education in the evaluation process of education institutions. Data benchmarking can compare performance levels of two or more organizations if it complies with two conditions: the existence of an independent consultant or agency and the data base containing considerable information about performance levels of the organizations throughout the years. Observance of these conditions leads to provision of unique information profiles of every participant who joins this study. These are registered in the data base, and the performance level of the new participant is compared (benchmarking), based on various markers, to the level of other participants with registered information in the data base. The inspections carried out in educational organizations gives another possibility for a structural analysis (Grigorescu, Olteanu, 2012).

If this method is implemented on higher education, certain difficulties may arise and by all means, they must be considered. Such difficulty may be universities/ higher education institutions availability to bring information for data base construction and to accept being part of a data based benchmarking process. Even though it leads to identification of the best ways to increase performance level of the organization, there is still certain reluctance to this method. This reluctance is caused by misinterpretation of benchmarking significance and it is usually asserted by the strategic management.

Implementation of data benchmarking may be influenced by the confidence earned by the independent consultant from the participant institutions in order to achieve comparisons of performance levels. This confidence that must be transmitted to institutions might suffer from the fact that institutions lose control of this furnished information, they have no influence on data collection, on the methods and means of defining, measuring and calculating the results, hence the need to imprint a credible ethical code.

On the other hand, in order to attain an efficient benchmarking, participant institutions must provide valid, real, precise data about the undergoing activity to make comparisons possible based on various performance markers or the data and conclusions could be wrong.

Data Benchmarking analysis is conditioned by the celerity with which the institution can transmit the data asked by the analysis consultant, this way determining the completion date. This also depends on the relation created between the consultant the analyzed institution. If their involvement is reduced the comparative analysis results will be obtained as soon as the data is entered, thus the input time is reduced. Profound involvement in comparative analysis, as a result of the multitude of provided information, will determine a longer timeframe, days, even weeks. The timeframe of attaining a benchmarking analysis is determined by the number of team members, by the volume of processed information, by the credibility of the provided data as well as the consultant's reputation (who can also fix the financial value of the service).

Consequently to those previously presented, we can analyze data benchmarking according to certain differential factors: (Table no. 1)

**Table no. 1: Benchmarking characteristics**

<b>ONLINE DATA BENCHMARKING</b>	<b>DIFFERENTIAL CRITERIA</b>	<b>DETAILED DATA BENCHMARKING</b>
Few minutes or an entire day	Promptitude of results procurance by the participant organization	Few days or weeks
Free of charge or a low price	Price	The price rises directly proportional to the consultant's level of commitment
Arguable or low	Results quality	Study results can be a starting point for implementing changes within the organization
Non-existent or extremely low	Consultant's involvement	Extremely high
Arguable or low	Data quality	Highly trustworthy
Low	Consultant's reputation	High

*Source: Magazine for quality assurance in higher education Vol.1, Nr.2, Decembrie 2009*

In specialized literature, the success of benchmarking process in higher education institutions is achieved by their great uniformity, by their resembling structure, with the purpose to create references farther used to function better, to excel. In this regard organizations must be prepared to accept outer practices and types of organizing from

similar organizations, to collaborate with the purpose of self-management to an optimizing level which others already achieved.

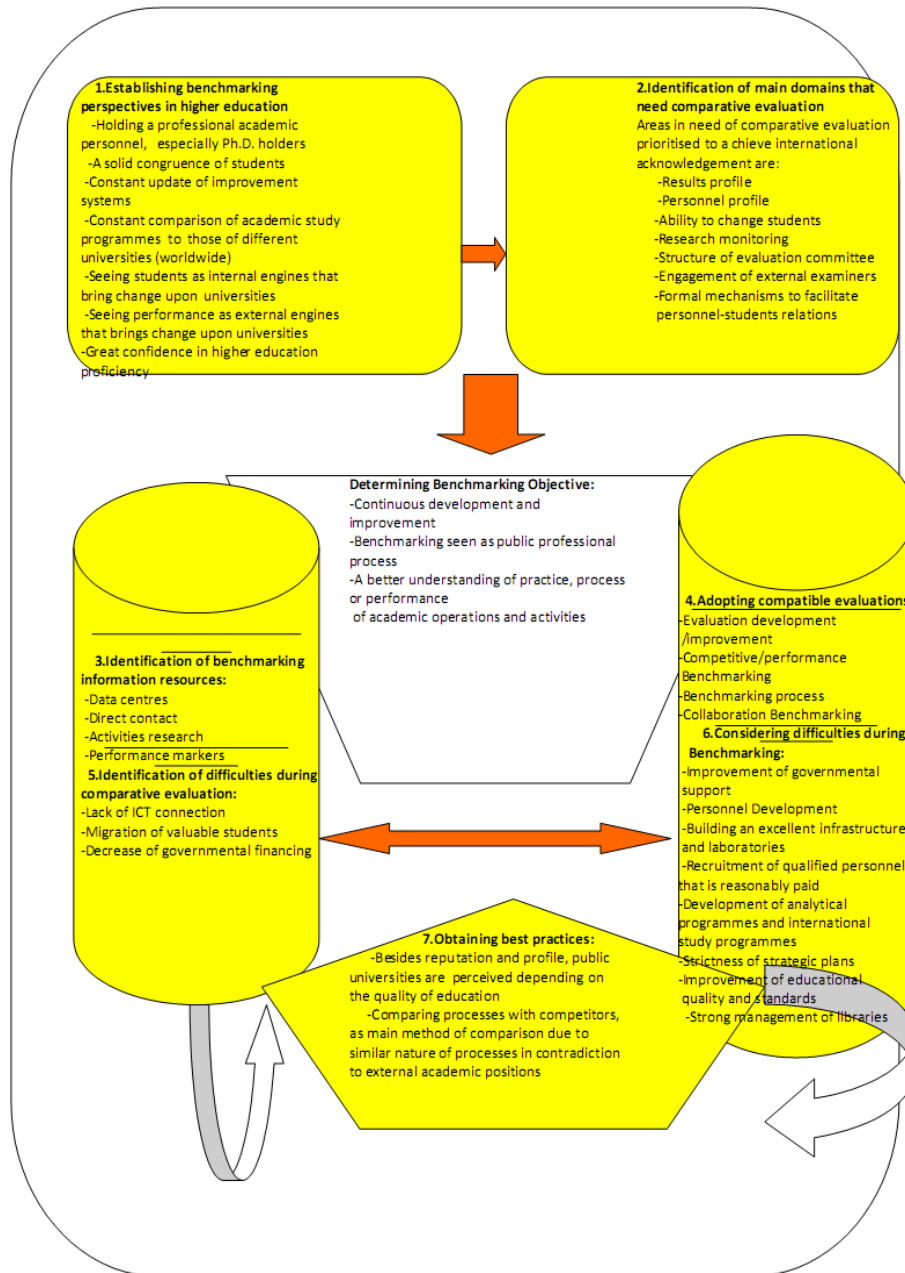


Figure no. 1: Model implementation of benchmarking in higher education

Above is proposed a model of benchmarking for the universities based on their specific.

Education is a key point of the society development and it has to answer to the requests of the labor market at first, but not only (Grigorescu, 2015). That is why using performant tools to manage the activities on a professional level is a must, giving to benchmarking a good chance to be implemented successfully.

Another fundamental condition for a successful benchmarking is maintenance of a permanent stability level of their activities. It was noticed that higher education institutions with inferior performance and activity are more interested in these analyses in order to improve their organizing and learning process, while the institutions of reference show a poor engagement in the process.

### **Conclusions**

This way, Benchmarking consists of thorough evaluation and detailed analysis of practices, procedures and results of a certain institution taken as model in order to compare performances of its own practices, processes, services with those of the model, and identification of practical and viable solutions, in order to increase its own competitiveness. Therefore, based on results of comparisons, and guided by the principle: „If they can do it, so can we”, new objectives, plans and action programmes will be introduced, allowing the institution that implements benchmarking to attain new competitive advantages. Benchmarking is not a copy process, but by comparison to leaders' activity, institutions that implement this procedure can learn from their experience and can identify the processes of improvement opportunities. So, the biggest role of benchmarking in higher education institutions is to analyze processes, concepts, methods, strategies and ideas of successful institutions and to transpose the best characteristics resulted from their own analysis. This evaluation method shows us what are the negative and positive variations of our institution compared to competition, permanently improving operations and it is important for the strategic analysis because systematic comparison sets grounds for an objective assessment of performances and costs of their own activity. Benchmarking is also an instrument for early notice of competitive positions degradation, thus being a method to encourage organizational development.

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## FINANCIAL PERFORMANCE KEY VALUE SITUATION BY CRUDE OIL PRICE FLUCTUATION

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### Abstract

Crude oil price always plays a major role in International oil companies (IOCs). Shareholders of IOCs are affected directly by crude oil price fluctuation and it's important to know how to appraise effects of crude oil price on quality of earnings which is the adjusted index to evaluate each company's financial situation. Quality of earning is a financial factor, which could support financial performance, so evaluating this factor by crude oil price and appraise correlation between them could clarify business model behavior while the market upraises or downward. The key value which should appraise in IOCs business model is financial performance which has significant dependency with quality of earning (Campbell R. Harvey, 2012). Furthermore, as our data is collected from New York Stock exchange (NYSE) and OTC market stock exchange (OTCMKTS), required data were arranged based on GAAP financial standard. Objectives of this research are Evaluating financial performance as a key value in IOCs by appraising crude oil price effects on quality of earning in NYSE and OTCMKTS stock exchange companies' oil and gas sector. Methodology of this research is using Pearson correlation coefficient and regression to test quantitative data which is derived from stock exchange.

**Keywords:** oil price, business model, international oil companies, key value, financial performance, quality of earning, financial health

**JEL Classification:** C51, D22, L71

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### Introduction

Business model and business model innovation have various definition in which industry or firm is considered. One of the earliest definition of business model which was proposed by Tapscott, Ticoll, and Lowy (2000), concentrate on supply chain and delivery channel that includes supplier and distributors, infrastructure and commerce service providers and finally customers as the most crucial object which receive value. Later, another aspect of business model was introduced by Rappa (2003), which focused on revenue generating and

importance of its position in firm's value chain. These models comprehensive definition could be derived from developed business model by Osterwalder et al. (2010), which consider a typology that classify business model elements into nine building blocks, namely value proposition, customer segments, channels, customer relationships, revenue streams, cost structure, key resources, key activities and key partnerships. This article objective is evaluating business model from its financial aspect which is revenue stream and could be appraise by quality of earning index that could achieve from firm's financial statement. Financial performance of each company has correlation by quality of earnings ratio (Campbell R. Harvey, 2012), this correlation is because quality of earning is a pure financial ratio and illustrates whether earning of a company is manipulated or not. This index is a financial index to support financial performance of each company and omit any effects which comes from investing or financing activity to appraise the rate of companies' primary business activity on its earning. Quality of assets is also one of crucial factors which could support financial performance but in this article's scope is quality of earning and its correlation by crude oil price.

There are many specialists which have define the earnings quality but until now there is no definition with a large acceptance. This concept has many faces such as earning persistence, smooth earnings, magnitude of accruals, income- increasing accruals, absolute value of discretionary or abnormal accruals, and the extent to which accruals map into cash flows (Eliwa et al., 2016) Dichev et al., 2013, Dechow et al., 2010). In this article, we rely on Libbet et al.(2009), to achieve quality of earning ratio based on cash from operating activity. The quality of earnings ratio measures the portion of income that was generated in cash.

Crude oil price fluctuation, push International Oil Companies(IOCs) to adjust their business activities to constantly deliver desire value to their customers and keep or develop their revenue stream based on market situation. IOCs' financial statement evaluation could route us to find out financial aspect of business model situation while crude oil fluctuated even downward or upraise. Our target market niche is IOC's which are in stock market and we could be derived their financial statements from their stock market. Our selected time series is 10 years to cover both downward and upraise situation. As figure1 illustrated, in this period, crude oil experienced the high peak around \$140 and the least price around \$30, therefore all probable conditions has happened on this market and IOCs had to adjust their business to deliver value to their customers and their shareholders.



**Figure no. 1. last 10 years' Brent crude oil price**

*Source: macrotrends.com*

### **Methodology**

The required data which should evaluate in this article to illustrate financial performance as a business model key value, have chosen based on its definition which is generating revenue by using assets and fundamental business activity without manipulating financial situation, like using companies share repository to inflate non-operational revenue and then generate profit margin. Quality of earning omits any artificial profits which could create by inflation or any other assets than primary assets (Campbell R. Harvey, 2012). It could also evaluate financial health of a company which is not in the scope of this article. Therefore, the best factors to measure could be considered as quality of earning which could be measured by operating income or cash flow from operations. To obtain precise value for quality of earning, quality of earnings ratio could be utilized. According to the text book "Financial Accounting" by Robert Libby, Patricia A. Libby, and Daniel G. Short, (McGraw-hill 2009), This ratio can achieve by  $(\text{Cash from Operation} / \text{Net Income})$ , where cash from operation, comes from annual cash flow statement and net income, comes from annual income statement. This ratio shows cash income and total income correlation. A ratio less than one reveals a low earnings quality; that is, the company may be overstating its true earnings. A ratio greater than 1 is indicative of the company's strong ability to finance its business activities through its operating cash flow (Libby et al., 2009).

Based on Generally Accepted Accounting Principles (GAAP) or International Financial Reporting Standard (IFRS), there are three main sector in cash flow statement which reports overall cash flow from any activity of a company. They are Cash from operating activity, cash from financing and cash from investing which as their name obviously portray their objectives, cash from investing and financing are non-operating income which generated by a company rather than its primary business activities. The reason of choosing quality of earning factor, as its definition state, is that this factor illustrates revenue from operation which comes from companies' primary business activity and any financial manipulation is not involve in this factor. Therefore, we could assume that quality of earning is a pure factor to show real firm's business activity and could support our research regarding effects of crude oil price fluctuation on IOCs financial performance to enrich our research results.

IOCs which their fundamental data has been used in this article are in New York Stock Exchange (NYSE) and OTC market stock exchange (OTCMKTS). Both stock markets are in the United States and all extracted data are in USD currency to appraise precise results. Following is the list of companies with their activity field and other fundamental information.

**Table no. 1: International oil and gas companies which their financial data has used in the article**

Companies	Base Country	Stock Market	Sector	Index
BP	UK	NYSE	International Integrated Oil and Gas	BP
CGG	France	NYSE	Oil and Gas Field Services	CGG
Chevron	USA	NYSE	International Integrated Oil and Gas	CVX
Conocophilips	USA	NYSE	International Integrated Oil and Gas	COP
Eni S.P.A	Italy	NYSE	International Integrated Oil and Gas	E
ENSCO	UK	NYSE	International Oil and Gas drilling	ESV
Exxon	USA	NYSE	International Integrated Oil and Gas	XOM
Gazprom	Russia	OTCMKTS	International Integrated Oil and Gas	OGZPY
Lukoil	Russia	OTCMKTS	International Integrated Oil and Gas	LUKOY
Noble Corporation	UK	NYSE	International Oil and Gas drilling	NE
Schlumberger	USA	NYSE	Oil and Gas Field Services	SLB
Royal Dutch Shell	UK	NYSE	International Integrated Oil and Gas	RDS.A
Statoil	Norway	NYSE	International Integrated Oil and Gas	STO
Total SA	France	NYSE	International Integrated Oil and Gas	TOT
Transocean	Switzerland	NYSE	International Oil and Gas drilling	RIG
Weatherford	USA	NYSE	Oil and Gas Field Machines and Equipment	WFT

*Source: NYSE and OTCMKTS*

For our test, fundamental financial data has extracted from NYSE and OTCMKTS via amigobulls.com website. As we mentioned earlier, cash from operating activity from cash flow statement and net income from income statement were extracted in a 10-year time series which has split in four quarters each. The time series has started from 1<sup>st</sup> quarter of 2007 to 3<sup>rd</sup> quarter of 2016. Although at the time which we have done this article, 4<sup>th</sup>

quarter of 2016 is also should be reported by companies, some companies like CGG, Eni, Gazprom, Lukoil and Transocean has not reported their 4<sup>th</sup> quarter of 2016 yet. Therefore, the end of the time series is 3rd quarter of 2016. All financial statements support, Generally Accepted Accounting Principles (GAAP), which is the standard of reporting financial statement and ruled by the U.S. Securities and Exchange Commission (SEC) [Online] Available from: <http://www.sec.gov/rules/concept/34-42430.htm> [Accessed since: 18 February 2000]. 10-year of Brent Crude Oil prices in each quarter since 2007 has extracted from federal reserve economic data [Online] Available from: <https://fred.stlouisfed.org> [Accessed: 18 February 2017]

Crude oil price is considered as independent variable and operating income as dependent variable which rely on crude oil price and Pearson correlation coefficient is using to evaluate correlation between variables as both variables are quantitative.

$$r = \frac{\sum XY - \frac{(\sum X)(\sum Y)}{n}}{\sqrt{(\sum X^2 - \frac{(\sum X)^2}{n})(\sum Y^2 - \frac{(\sum Y)^2}{n})}}$$

Where X is crude oil price, Y is quality of earning, r is Pearson correlation coefficient factor.

Regression test is also used to show us with which degree we could predict statistic performance.  $\hat{y} = b_0 + b_1x$ , where y is quality of earning, x is crude oil price and b0 and b1 are calculated as  $b_0 = y - b_1 * x$  and  $b_1 = \frac{\sum [(x_i - \bar{x})(y_i - \bar{y})]}{\sum [(x_i - \bar{x})^2]}$ .

IBM SPSS tool was selected to evaluate results, as it provides a simple, easy to follow, and non-mathematical approach to understanding and using quantitative methods and statistics. (Burns, R.P.& Burns, R., 2008).

**Analysis**

Both of crude oil price and quality of earning ration are quantitative, so the required test is Pearson Correlation Coefficient and has done by IBM SPSS version 22. As we need two series of data to run the test and make a conclusion, we should achieve normalize quality of earning data to use it as dependent variable while crude oil price uses as independent variable. Hypothesis of this test are as follows. H<sub>0</sub>: Crude Oil price and quality of earning are dependent

H<sub>1</sub>: Crude Oil price and quality of earning are independent

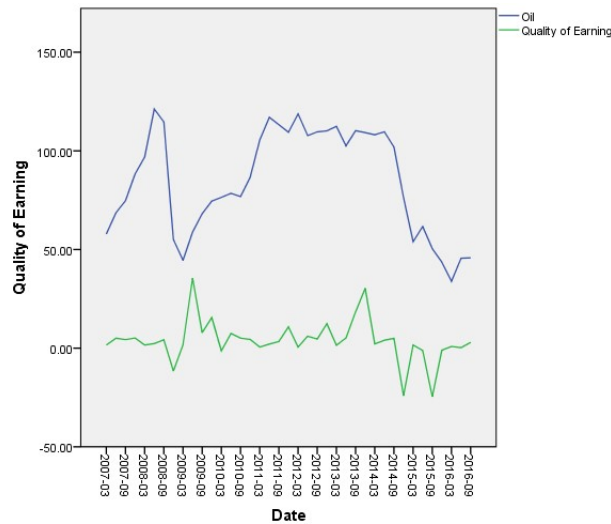
First, all achieved data from Cash flow statements and income statements of selected companies' financial statements were imported in SPSS and as a separate variable, quality of earning was calculated by dividing cash flow from operation activity to net income. The ratio shows the rate of primary activity of each company to net income which comes from all types of activity of a firm.

Second, Pearson Correlation coefficient test has done on mean of both crude oil price in 39 quarter from 1<sup>st</sup> quarter 2007 to 3<sup>rd</sup> quarter 2016. Following are the table of descriptive statistics of research variable which are crude oil price and quality of earnings ratio. It shows that crude oil price has \$87.36 range and has a minimum \$33.84 price while its maximum was \$121.20.

**Table no. 2: Descriptive statistics of research variables**

	N	Range	Minimum	Maximum	Sum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Oil	39	87.36	33.84	121.20	3298.45	84.5756	4.25982	26.60258	707.697
Quality of earning	39	60.11	-24.61	35.50	150.85	3.8678	1.68454	10.51997	110.670
Valid N (list wise)	39								

Source: Authors' own research from SPSS result Furthermore, each series' diagram based on time series are shown in figure 2



**Figure no. 2: Time series of Crude oil price and Quality of Earnings ratio**

Source: Authors' own research from SPSS result

Test result shows us that the  $P$  value is 0.131 which states that both variables are dependent. Therefore, Crude oil price and quality of earning are dependent and quality of earning could predict moderately by crude oil price with %24.6 which is regression  $\beta$  value.

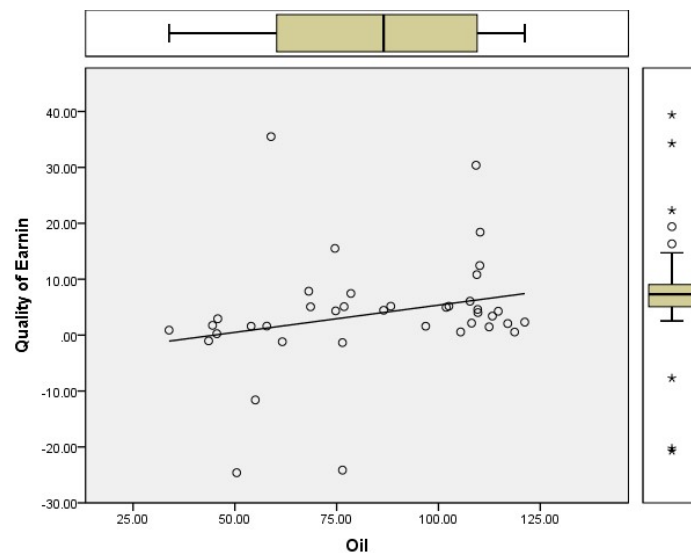
The correlation table is shown in table 2.

**Table no. 3: Pearson Correlation test result**

		Oil	Mean
Oil	Pearson Correlation	1	.246
	Sig. (2-tailed)		.131
	N	39	39
Quality of Earning	Pearson Correlation	.246	1
	Sig. (2-tailed)	.131	
	N	39	39

*Source: Authors' own research from SPSS result*

Figure 3 is regression scatterplot which state the correlation between crude oil price and quality of earning ratio in 10 years. This plot is also state a positive correlation between crude oil price and Quality of earning even though it is not a strong correlation.



**Figure no. 3. regression scatter plot of Crude oil price & Quality of earnings ratio**

*Source: Authors' own research from SPSS result*

As quality of earning has chosen to appraise financial performance key value situation with crude oil price fluctuation, above test results, illustrated that financial performance has positive correlation with crude oil price and IOCs' financial performance has dependency to the crude oil price. It means that in the market slow down situation, IOCs have lesser financial performance and they might compensate the decline of their primary business



activity by other strategies like income from investing or income from financing. In the other hand, when the crude oil price goes up, financial performance is also growing which illustrated that IOCs are busy with their primary business than thinking to income from investing or financing.

### **Conclusions**

Evaluating financial aspect of business model which could come from appraising related business model key value to find out its situation by financial factors is the main objective of this research. Related key value as mentioned earlier in this article, is financial performance which support financial health of a company and portray companies' financial situation with their primary business activity while omit any other activities which could be done and support earning by investing or financing. The related financial ratio that is equivalent by financial performance is the quality of earnings of each company. Financial information of sixteen companies were gathered from their financial statement and precisely, from income statement and cash flow statement, then quality of earnings ratio was calculated by dividing cash from operating activity to net income. its correlation by crude oil price was appraised by Pearson correlation coefficient algorithm and related scatter graph simultaneously. The result shows that IOCs' quality of earning has positive correlation with crude oil price which is high when crude oil price is high and IOCs are doing their primary business other than financing or investing or any non-operating activities, in the other hand IOCs' quality of earning is low when the market is low and IOCs had to compensate their lack of income by doing any non-operating activity or financing and investing.

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## THE REFLECTION OF SPIRITUAL CAPITAL IN E-BUSINESS

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### **Abstract**

Spiritual capital is a concept that has been debated in the last decades from several points of view as it appears to interfere in certain fields of research like religion, psychology, economy and philosophy. In the literature of review spiritual capital has received many definitions in all domains mentioned above, but so far its origin hasn't been established in a domain or another. The purpose of this article is to analyse the way spiritual capital reflects in the digital age, as this concept has been debated in the area of businesses in the last years. Moreover, it will be determined why it is so important to consider spiritual capital an essential element for doing business on Internet. Its applicability in business is needed mostly to create transparency between digital consumer and virtual businesses focused on great turnovers and not on the human factor when it comes to virtual distance..

**Keywords:** spiritual capital, consumer, experience, business

**JEL Classification:** L81, M14

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### **Introduction**

The notion of 'spiritual capital' appears in the early 2000s, being treated either religiously, psychologically or economically. In theory the concept receives definitions which didn't position it in one area or another, not having so far a certain origin. Donah Zohar (2004) is the first author who theorize the concept in terms of the individual and the organization. In general, this type of capital is associated with the vision, mission and values of a company, referring to the fact that this concept has not religious origins. Analyzing the meaning of the adjective 'spiritual', it derives from the Latin 'spiritus', the basic meaning highlighting the synonymous with the human intellect. Indeed that a secondary meaning for 'spiritual' is related to the religious appurtenance by associating with an immaterial being, spirit or deity. Linguistically, 'spirit' or its derivative 'spiritual', are from a grammatical point of view, lexical homonyms, from hence the confusion regarding the acceptance of a sense or another for theorists from related fields. In this paper the concept is treated from the perspective of the interested field, namely business administration, but the positioning of it in other fields of interest, such as the history of religion, philosophy or psychology, is not deniable.

### **Literature review**

Finke (2002) calls it religious capital. Meanwhile, Iannaccone (1990) says that the function of own production in a household and human capital is based on economic doctrines. This links to human satisfaction of producing for themselves or for the family, in the sense that it takes time, know-how and raw material. From another's perspective, the spiritual capital is part of economic development, explaining the role of the people's contribution to the development by using the resources they have. Actually it's about the responsibility to create and preserve. In fact, the spiritual capital is a theoretical improvement for other forms of material, intellectual, cultural, social capitals. It is rather understandable from Donah Zohar's theory that an individual relates to a motivational value system, which stimulates creativity and positions them towards morality.

Palmer and Wong (2013) give the following definition about the spiritual capital: 'individual and collective capacities generated by affirming and nurturing intrinsic spiritual value of each human being'. From here, their association with human perspective, nowise religiosity. Their arguments for this definition are based on the fact that their theorization is an independent form of capital without being a subcategory for social, cultural or religious capital. The spiritual capital is assigned to each individual, and this customization of it is to reveal the meaning of the concept. Inter-human relationships are born and evolve through this type of capital. In Gillett's (2008) view about spiritual capital, the organization presume internal and external factors that contribute to business development. Besides the specification of several directions in the external area to develop a business, in the description of resources specifies the financial, physical, technological and human resources. Regarding the internal dimension, it would be interpreted in the sphere of spiritual because of the term 'inner', which is used frequently, and linked to the medieval period when spirituality crystallized towards man's perception in terms of inner life through each individual's perceptions, desires and motivation. He identifies a series of qualities for the prosperity of a business that would define precisely the concept of spiritual capital proposed by Donah Zohar. He correlates the inner dimension of the company with 'soft stuff'. In terms of delicate sense of things, actually this is attributable to the usual phrase of corporate language 'soft skills' or 'hard skills', in terms of employees. In the area of 'soft skills', are the abilities of a person to act in certain situations, through the fact that they have a number of positive qualities that can be used for that conjectures. Like Zohar, he reminds of personality, attitude, values and enthusiasm. Also by approaching morality through the motivation of having a noble purpose, 'the sense of noble purpose' of moral values which have an impact on inter-human relationships, are respect, empathy, trust, cooperation as being the core. As Thierry Magnin says, spirituality is transdisciplinary and is manifested by the connection between the scientific research and religion and is given by the mystery of attaining knowledge.

The spiritual capital is a modern concept that has been generated by other sources of capital. The most relevant are: social, human, intellectual and religious capitals. The social capital has two meanings, on the one hand it has been theorized in terms of sociology, by reflecting the established human relationships, and on the other hand is an accountancy term, namely a patrimonial active, totalizing the associates' contributions. In other train of thoughts, in the spiritual capital area the meaning of sociology is applied. In Bordieu's view, the social capital defines a set of present or future resources that contribute to the sustainable development of the connections between people, the expression being shortly an appurtenance at a group. The Organization for Economic, Co-operation and

Development (OECD) defines social capital as ‘one body networks with shared norms, values and understandings that facilitate co-operation within or among groups’. This means that the focus is on the social networks which share values, norms and common interests to cooperate. Putnam emphasizes the collective value and believes that there are several means by from which the social capital is derived, such as: the flow of information that circulates among humans, reciprocity, the collective action of individuals and groups, mentalities.

Baker supports that this type of capital is specific to some social categories in which each individual uses to pursue its interests. Lesser believes that if the economic capital is related to material things, human capital to human minds, then the social capital cannot exist for individuals if they do not interact and do not create relationships with those around them. The social capital comes from human connections and the words that defines it, are the contact network of an individual and values such as, reciprocity, belonging, and collaboration. Also in the context of digital revolution, specific to the contemporary society, when technology has become an indispensable part of all life, social media has become a part of everyone's life, because social networks define the behavior of modern humans. This means that networking on the internet reflects the social capital in its classical form. Although the main purpose of social media is for users to connect and make new friends, social networks can help people to get information and educate themselves, contributing to human capital development. Danah Zohar (2005) proposes, interprets the social capital as the wealth that makes communities and organizations function effectively for prosperity. It can be defined as the ability of people to work together for common purposes in groups and organizations.

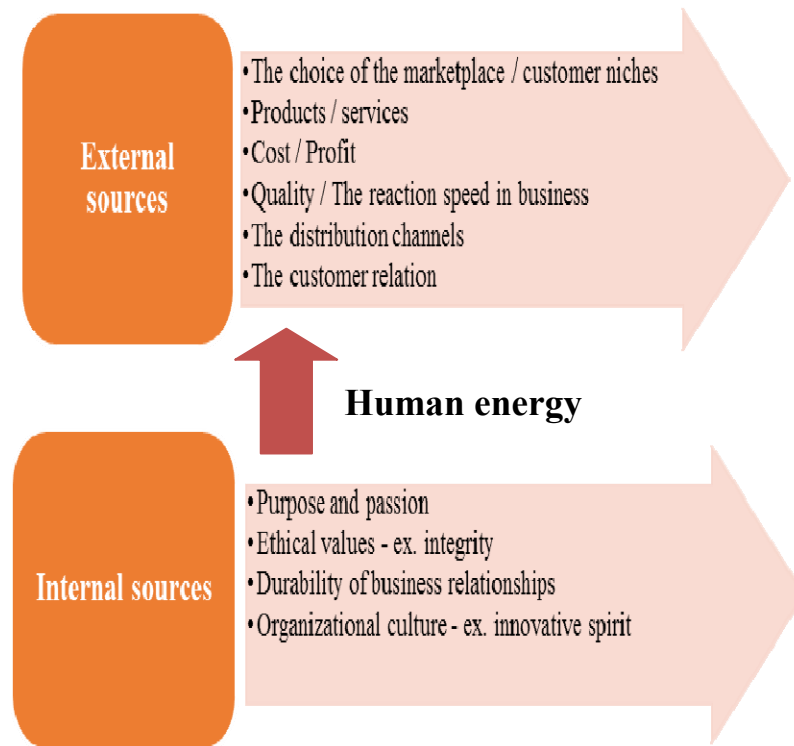
In *The Principles of Marketing*, Kotler (2012) focuses on socially responsible and business environmental marketing, including for the online environment, namely satisfying present needs of consumers and businesses, while preserving and developing the ability of future generations to fulfill their needs. Starting from the idea that in the digital era, businesses are made on the internet, Kotler proposes that through a societal marketing, businesses to deliver value to customers through a middle way: to improve and maintain both consumer and society welfare. A simple interpretation says that social responsibility is not good only for the planet, but also for business.

In the *Marketing Management*, Kotler (2012) reveals that the digital age is a societal force that created new opportunities, challenges and business behaviors. Also, he does not deny the fact that the internet is a powerful information and sales channel. Companies can collect comprehensive and wealthy data from customers, prospects, marketplaces and competition. In the analysis of *Marketing 3.0 - From products to customers, to the human spirit*, Kotler (2010) identifies *Marketing 3.0* as based on values. Examining the business environment in the emergence of *Marketing 3.0*, it does no longer treat people as mere consumers, but as human beings with lofty minds, hearts and souls. Organizations address to a consumer as a human being perceived as a whole that has four components: a body, a mind able to think and analyze independently, a heart that feels emotions, and a spirit which is the soul or human philosophy center. *Marketing 3.0* may be associated with the third stage of knowledge (*Learning Three*) which corresponds to a highly intuitive, spiritual knowledge, and beyond limits. A growing number of organizations use social media as a lever to trigger a viral chain reaction, to arouse the interest for the social responsible work they do. More and more companies have tried to create online connections with customers and stakeholders to find out their interest causes and how they can work together to have a

positive effect on the world. Social networks can significantly improve a company's image abroad, boosting the morale of the organization. Social media is a tool that propels the businesses towards a socially responsible and sustainable level. Integration of the spiritual capital is a new source of competitive advantage for a sustainable business.

**The spiritual capital analysis in business area**

The spiritual capital offers many competitive advantages besides the external and internal sources related below which are standard.

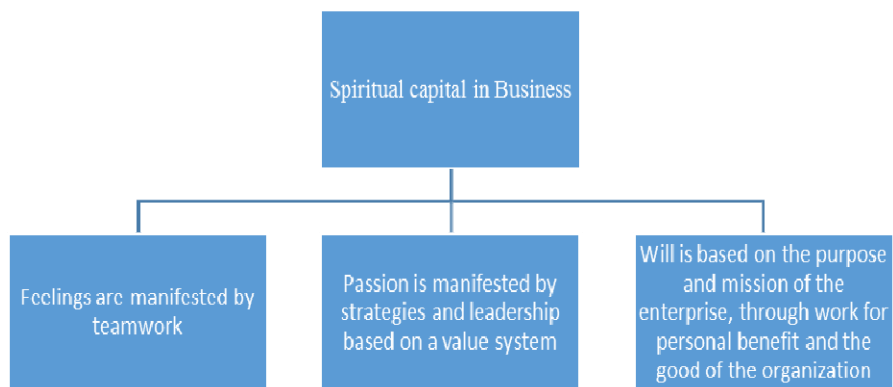


**Figure no. 1: Sources of Competitive Advantage**

Source: Darwin Gillett, *Noble Enterprise: The commonsense guide to uplifting people and profits*, p.31

Other advantages are related to the human capital. And as Gillett affirms, traditional business are based on two sources of energy, resulting of the body and the mind. The first type of energy is related to physical effort, the association of the action with human hands. The other type of energy that he describes is the mind, whose energy, according to Gillett's model, is moving towards cognitive emotions, involving logical thinking, and the affective emotions related to the body's states, feelings and experiences that we live. The brain's power is integrated in knowledge, intellect, analysis, decision making, innovation,

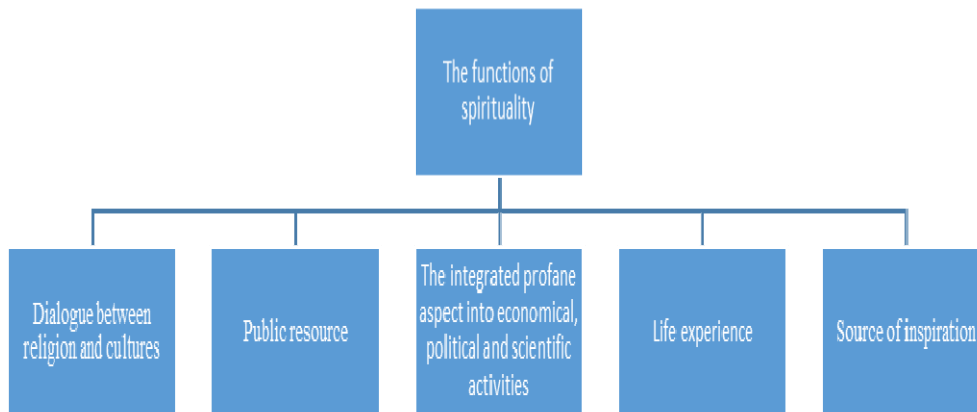
unconventional thinking. By analyzing, all these are elements in building a business. But Gillett has kept three more types of energy, which he attributes in his modern business model, which, in his vision, will shape the spiritual capital of a business: the emotions that were mentioned above, using the power of the mind, heart and the human will. Regarding emotions, he specifies that emotional energy is closely related to emotional intelligence. The heart energy is equalized with the ethical values: honesty, trust, respect, connectivity and unity. He also puts emphasis on the human connectivity. All approaches of the spiritual capital of the business area, contain the part of collaboration, connectivity, connection etc. The way that this energy manifests in a business links to principles, such as leadership. Regarding the size of will in a business, it is associated towards the mission of the organization. In this area it would be manifested the goodness for itself and for the company, through organization, discipline and focus. These three together form the spirit's energy with the body and the mind, and it is the third type of energy that revitalizes the traditional business model, treated in terms of integration of the spiritual capital as a new source of competitive advantage for a sustainable business. In the view of Gillett, the three types of energies emanating from the body, mind and spirit creates the new business model of contemporary society through he understands that man contributes thus fully, utilizing their capacity for a good business environment. Finally, these remarks form Gillett's concept, which is the factor of nobility, his proposed model is the noble business and is based on five factors: the purpose to promote the culture of a work ethic specific to the respective business, ethical values, commitment to what means the human factor, and here is reminding the spirit, innovation and not least, the unit that requires collaboration and connectivity between involved parties. Also, he refers to the noble entrepreneur, who he sees as a leader with physical, mental, and spiritual energy, that inspires, and here must be put focus on inspiration ability to provide required sustainability in a business, as well as his character should inspire these energies to achieve the purpose.



**Figure no. 2: Gillett's model for spiritual capital in a business**

Source: Darwin Gillett, *Noble Enterprise: The Commonsense Guide to Uplifting People and Profits*, pp. 43-47

SPES is the acronym of The Spiritual European Institute in economy and society which is focused on how the spiritual aspect occurs on an economic and social level. In 2014 this organization published a special number, dedicated to how spirituality is reflected in business for activating guidelines, to call it ‘the malleable area of entrepreneurship’ including spiritual entrepreneurship. SPES interprets spirituality as a multiform research for getting in contact with those around them, with God or the ‘ultimate reality’. Bouckaert proposes a reinterpretation of the SPES definition, spirituality becoming synonymous with ‘the way of thinking and lifestyle that comes from deep and personal experiences of interconnectivity’. Another vision in the spirituality of business could be proposed in purchasing decisions of man, by Jesuit Loyola, the middle age author of spiritual exercises, who said that man’s discernment has two sides: the rational one, by comparing the advantages and disadvantages of the alternatives in the economy, being a cost-benefit and a spiritual calculation, which the individual analyzes in his or her imagination, the options that would give a positive state of mind, one of these options will enhance his / her state of mind (dilatatio) and will give inner peace (consolation). Spirituality is viewed also in accordance with entrepreneurship through contemporary business practices that may adversely affect society, future generations by self-centered leaders who only care about their own business without caring about the environment. Zlosnai proposes spiritual orientation in business through organic business.



**Figure no. 3: The functions of spirituality**

*Source: Zsolsnai L., 2014, Entrepreneurship guided by spirituality, pag.37, Year XXXII, pag. 88*

**Conclusions**

In the specialized literature, the spiritual capital is approached at different levels, such as: management and leadership in terms of spiritual intelligence at a human / organizational level, operationalization of spirituality from an economic point of view and so on. By considering the spiritual capital interpreted from the model of will, emotions and passion, it creates the premise for the clotting of human relationships from which benefits the entire



generated business flow. As a conclusion, spiritual capital is an interdisciplinary concept which applied in business area gives the sense for entrepreneurs to take more into consideration the soft part of a business described through moral values and human factor.

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## **ORGANIC VS CONVENTIONAL FOOD. A SUSTAINABLE CONSUMPTION APPROACH**

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### **Abstract**

In the global economy context and a more and more saturated market, only innovative products can survive and retain the consumer's attention, by targeting emerging needs and responding to modern issues. This rule applies also to the habitual markets like the food market, where different sectors are developing based on the consumer's new needs and beliefs – organic sector, genetically modified market, molecular gastronomy etc.

Organic food represents one of the most trending and debated sectors nowadays, as it generates solutions for multiple social, economic and ethical problems but at higher costs and by declining other industries like genetic engineering or artificial add-in production. Thus, identifying and understanding the organic consumer's profile represents an essential point in the development of this sector. Also, taking into consideration cultural differences and local diets, a geographical circumscription must be respected when building the analysis.

Given this conditions, the central objective of the present paper is to determine the main factors that influence the buying decision, directing it from a classic conventional purchase to an organic choice. The starting point is a literature review that contributes to identifying the main buying influencers that will stand as a basis for the research – building an organic purchase matrix for the Romanian organic food consumer. The authors' organic purchase decision model distinguishes multiple interacting layers, each one standing as a validation point for the subsequent: demographic and social factors, economic factors, knowledge, personal beliefs, products characteristics, sector guarantees and availability.

The last part of the research is represented by the matrix testing phase on a selected geographical coordinate: Romania. Thus, a quantitative analyses was conducted on the Romanian consumers, the main results supporting the model's variable sequence and highlighting a limitation of the buying decision at the first level of variables: demographic, social and economic factors.

**Keywords:** Organic food, conventional food, purchase decision, consumer behaviour

**JEL Classification:** Q13, Q18, Q52, O13

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## Introduction

Agriculture and food products define one of the biggest global markets that is shaping the economy nowadays. Starting from the main conventional sector, the food market has evolved in different directions in the past decades, taking into consideration various determinants like the need of production efficiency (higher production volumes obtained in smaller amounts of time), the need of new products that fit better the producers' and consumers' emerging needs (both from an organoleptic and physico-chemical point of view), the need of continuity, of protecting the environment and human health (Voinea, Popescu, Negrea, 2015).

On a worldwide scale, one of the most trending sectors is represented by the organic food market that has rapidly developed, transforming itself from a niche market to an independent market of global dimensions.

In general, this upward trend results from the increasing public awareness regarding terms like food safety and food security, one of the biggest challenges of the food market being ensuring access for a wider public to availability of superior quality food, in terms of a cleaner environment (Chia-Lin H., 2014). Thus, more and more studies highlight that organic agriculture, by its notional concept and legal framework, covers food safety issues and takes into consideration a wide part of the food security issue (Hamzaoui-Essoussi et al 2013) and that organic food products are superior from multiple points of view (Mondelaers, K.,2009).

Europe is one of the biggest contributor to the organic food sector (Maya, S. R., 2011); on one side the development of the organic market was demanded by the need of reshaping the effects of intensive agriculture in terms of human and environmental health (Central and Western European countries) and on the other side, by multiple collateral needs in Eastern European countries (for example European Union accession for a country involved implementing an organic agriculture framework, or the intense demand of these new food products in other regions in contrast with the favourable soil condition highlighted a sustainable business opportunity). So for Europe the supply is not always located where the demand is, these 2 components of the market being divided.

Given these conditions, the main objective of the present paper is to identify, understand and build a sustainable consumption model based on the main reasons that transform a conventional food consumer into an organic food one and their intensity in generating the buying decision in both cases.

The research methodology includes a quantitative questioner based analyse, based on the consumer's opinion regarding aspects like visual impact of food products, beliefs regarding the purchasing of organic food products, acceptance of a higher prices in favour of multiple benefits. Based on the authors' past studies, Romania was chosen as a geographical coordinate due to its dynamic organic food market – export orientated (MADR, 2016) in the context of an uninformed and unsatisfied organic food consumer.

Before analysing the questioner results on Romania's situation, it is very important to have a general overview of the global or European organic food consumer, in order to be able to relate to a global reference. In this sense, a literature review is mandatory and the results will outline a consumer model based on a sustainable approach.

Nevertheless, the organic food industry will permanently highlight the benefits of its products in contrast with the conventional ones, defending its top position from a price perspective in a very transparent manner, by underlining the advantages in contrast with the high costs.

### **1. Organic vs. conventional food. Cost and benefits.**

Organic agriculture and the organic food market represents a global system of production and management that combines multiple elements like: the best environmental practices, the presence of a high level of biodiversity, the conservation of natural resources, the implementation of high standards regarding the well-being of the animals and a production method that respects the preferences of some consumers for some products obtained by means of natural substances and processes (Badescu et al., 2015). So it can be understood that the organic component plays various roles (economic, social, environmental, etc, cohesion and rural development) in response to concerns resulted from conventional agricultural practices, environment issues and human health disorders.

The prevailing conventional agriculture system also nominated as modern agriculture or industrial farming has delivered tremendous gain in terms of productivity and efficiency. Conventional can be different but, at the same time, share some common features, for example: large capital investment, lack of diversity - single crops grown continuously over many seasons, pesticide usage, huge fertilizers, energy and water inputs (nowadays more than 500 composites are registered at a global level as pesticides, chemical add-ins).

In contrast to conventional food production, the organic sector is define by using strict guidelines and product certification processes, adding specific labelling requirements and visual logos. According to the European Union, all these conditions ensure the consumers that organic food products were obtain in very strict limits regarding chemical synthetic pesticide and synthetic fertilizer use, livestock antibiotics residuals, food additives and other processing aids. Also, organic products guarantee the lack of genetically engineering in the production phase and the prohibition of using GMOs in the processing phase.

Thus, from a notional point of view, organic agriculture and organic food products are superior in many directions than the classic conventional food systems. But in terms of buying dictions, the consumer has a different way of perceiving these benefits in relation with higher costs.

In most of the cases the consumer will associate an organic food products with a normal economic good, because these food products have attributes that cannot be identified by a simple visual inspection or ordinary use. In practice, organic product's attributes are not easily assessed by the consumer, these good being considered credence goods by having qualities which are difficult or, in some cases, impossible to detect, but which nevertheless play an important role for the buyer (Bonti-Ankomah, S., 2006). So in this context, the consumer's awareness and education plays a primary role in assessing the buying decision. Moreover, guarantees are needed: a strict legislation framework, certification bodies, easy identifiable labels.

So in terms of a not so easy way of identifying the distinctive characteristics even after purchase and consumption of organic food, consumers will be able to detect an organic product only if they are informed. This correlation is driving the need of identifying the determinants that stand as beliefs for purchasing organic instead of conventional food.

Thus, recent studies highlighted that the alternative of buying organic food has been associated with multiple factors that, in general, reflect an increased consumer's interest towards personal health condition, animal welfare and environmental support (Siti, M., 2014). The organic consumer's behavior had been subject to different studies since decades, a pattern for sustainable consumption groups being appointed since 1995 (Table 1)

**Table no. 1: Categories of organic consumers, and relationship with consumer behavior**

Organic consumer groups*	Key characteristics
Environmentalists	Concerned about environmental quality
Food phobics	Concerned about chemical residues in food
Healthy eaters	Consumers who, for various (medical or other) reasons, follow particular diet sets
Humanists (welfare enthusiasts)	Concerned with 'factory farming' methods
Hedonists	Believe that a price premium on a product signals a better product

\*Note: It is important to note that various degrees of overlap can exist among the categories.

Source: Davies et al. (1995)

The above consumer behavior pattern is still available today as recent studies debate which of the 5 groups incorporates the majority of organic consumers and which parameter is the most important in taking the buying decision. According to Bonti-Ankomah concern for human health and safety represents the key factor that influences consumer preference for organic food. So Davie's pattern is followed also in terms of category overlapping: food phobics and healthy eaters representing the main groups for organic food consumers. These 2 behaviours are the results of a more visible deterioration in human health over time and, therefore, a motivation for consumers to buy organic food as insurance and/or investment in health (Bonti-Ankomah, S., 2006).

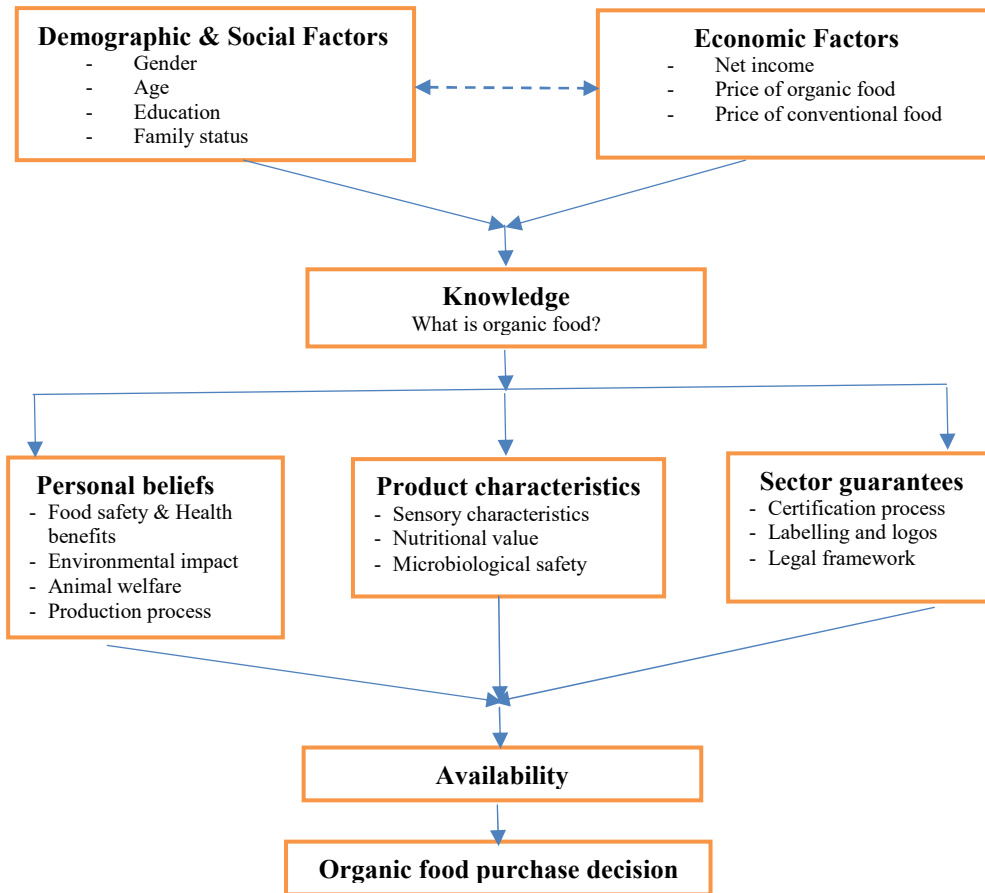
Some other aspects that differentiate organic food consumers from conventional food consumers are represented by lifestyle and environmental attitudes (Shafie, F. A., 2012). In addition to these determinants, demographic variables have also a substantial contribution in forming organic or conventional food consumer groups. Also, organic food consumers tend to be educated and relate to middle or high society classes. In other words, demographic conditions being directly proportional with the net income levels have a very significant influence in accepting or not the higher price in exchange for multiple long term benefits.

Education and society also play an important role in building the food consumer profile, these characteristic influencing the consumer's standard of living. Usually, rural consumers are not interested in the traceability chain of the food product (most of the food products being self-produced); the rural consumer buying most often conventional food and not showing any interest in buying organic food in the future. In contrast, urban consumers tend to be in touch with the latest products that fit better their emerging needs and, if not already organic consumers, declare themselves as potential consumers that intend to buy organic food in the near future (Urena et al, 2008).

So, it is important to highlight that the organic food consumers must be informed in order to support the buying decision of a product that doesn't have any visible positive characteristic in contrast with conventional food at a first visual contact and that the information acknowledged must be confirmed by personal beliefs that guarantee a linkage between the buying decision and future positive actions related to sustainability.

**2. Building a sustainable consumption model of the organic food consumer. Case study on Romanian consumers.**

Taking into consideration human nature, the perspectives regarding conventional and organic food are different from an individual to another and are shaped by multiple social, economic and cultural variables. Based on the literature review it can be observed that numerous studies tend to highlight the same results regarding what determines consumers to opt for conventional or organic food and what contributes to the buying decision. Based on the scientific literature review the authors have proposed a consumer model, built on a sustainable approach (Figure no 1).



**Figure no. 1: Organic food - purchase decision matrix**

The model consists of 4 main areas, two of them containing exogenous factors, while the other 2 containing factors directly related with the consumer’s interest for food traceability and the organic sector. The buying decision is always generated starting from the life set conditions, more exactly demographic, social and economic exogenous factors. These 3 main categories shape the consumer’s preferences, interests and dictate the consumer’s financial availability.

Secondly, after the first factors set favourable conditions for buying more expensive products in exchange of benefits dictated by health interests, social trends or environmental concerns, the potential organic consumer must know how to identify products that meet their emerging needs. In this sense they must know what an organic food product represents. Nevertheless, the consumer's knowledge must be sustained by 3 main pillars, which represent the 3<sup>rd</sup> section of the model:

- Personal beliefs - the consumer will be interested in identifying products that are safe, that sustain human health and don't interfere with the environmental protection principles and animal welfare aspects,
- Product characteristics – the consumer will be interested in food products that attract by a natural and tasty aspect, colour, shape, this suggesting a high nutritional contribution and innocuity,
- Sector guarantees – the consumer must have a security that the products bought are organically authentic.

Last but not least, the buying decision is dictated by the availability of the product, as a potential consumer can be informed, can perform the social and financial conditions to purchase organic products, but the consumer's demand cannot meet the market offer. This is an exogenous factor that can interfere due to regional restrictions or a significantly low consumption rate and inefficient local markets. So all these factor are mandatory and interconnected, as analysing the conditions of a certain purchase filter from the matrix depends on meeting the conditions of the filter from an upper level.

In order to test the above matrix, an exploratory attempt was proposed by the authors. In this sense the results of a questioner based study regarding organic food products were correlated with the current paper's consumer model. Romania was chosen as a geographic coordinate, pervious researches of the authors highlighted that Romania organic food market is a growing market form a production point of view, while the consumption rates remain low.

The quantitative research was conducted in December 2016 - March 2017. The survey was divided in 3 sections: A (buying frequency), B (purchase motivation), C (demographic profile of the respondent). The targeted public consists of both men and women, from urban and rural environments and aged between 20 – 57 years. The questioner was validated for 200 respondents.

The main findings of the questioner research are presented in table no 2. The results highlight that the Romanian consumers usually meet the above consumer model, most cases of non-consumers or consumers that intend to buy such products in the near future being influenced by socio-demographic factors or economic constrains, by the lack of knowledge regarding organic sector, different beliefs or interest or lack of availability.

As it can be seen in the results table, the respondents that are organic food consumers are most women between 31 and 50 years, most of them being married with children and having a medium to high income monthly income – 130 respondents. This can be explained by the fact that in families with children, women represent the main grocery shoppers and food safety and health aspects tend to have a growing influence in the buying decision.

Also, it can be observed that most of the respondents that are organic food consumers have superior studies and have a medium to high income. This represent a general hypothesis of the organic consumer model, where consumers with superior studies and high incomes tend to invest more in health aspects, including in the daily grocery basket.



**Table no. 2: Consumers versus non-consumers of organic food based on demographic data**

Variable	Organic Consumers					Non-consumers
	Food safety	Health benefits	Animal welfare	Environmental benefits	Premium price & trends	
<b>Gender</b>						
Male	5%	4%	0%	5%	0%	21%
Female	23%	34%	2%	1%	2%	3%
<b>Age</b>						
20 – 30	4%	1%	1%	1%	2%	2%
31 – 40	15%	16%	1%	1%	0%	6%
41 – 50	8%	12%	0%	4%	0%	5%
>50	1%	9%	0%	0%	0%	11%
<b>Education</b>						
University	26%	36%	2%	6%	2%	15%
High School	2%	2%	0%	0%	0%	9%
<b>Family Status</b>						
Single	4%	5%	2%	4%	2%	7%
Married without children	1%	8%	0%	0%	0%	12%
Married with children	23%	25%	0%	2%	0%	5%
<b>Income</b>						
<500 €	2%	2%	0%	1%	0%	10%
501 – 1000 €	23%	9%	1%	5%	0%	10%
>1000 €	3%	27%	1%	0%	2%	4%

Regarding the non-consumers category, the respondents were asked to write down a reason that influence them in the buying decision towards conventional food. The most frequent response was the high price of organic food products correlated with the lack of knowledge.

### Conclusions

The organic buying decision is determined by multiple factors, many of them being interdependent. For the Romanian market, the price of organic food represents a variable that often blocks the purchase intention. Thus, the price of these food products usually relates to the way in which consumers understands the organic sector in relation to its costs and benefits. Also this variable depends on the consumer's demographic conditions, which represent main influencers of the consumer's net income, thus triggering the interaction of the layers from the purchase decision model.

The result of the study highlight that men and women have different interests when buying organic. Men don't buy organic food as much as their counterparts. Also, men consumers usually buy food without much interested in the origin of the product or if they buy organic, they tend to be more preoccupied by the environmental impact of the food traceability chain than women who are more interested about food safety and health benefits.

Thus, the organic purchase decision matrix has been tested and validated for both organic consumers and non-consumers. For the category that fits the demographic, social and economic profile, the model follows the described flow and based on the consumers'

beliefs and market availability the impulse results in an organic buying decision. For the non-consumers, the decision stops at the first level from which we can conclude that the demographic factors are essential influencers in generating next steps of the buying decision: organic food notional acknowledgment of costs related to benefits and personal beliefs.

Nevertheless, reporting these results to the above matrix, we can identify that for Romanian organic food non-consumers the buying decision is limited at the first set of variables: demographic aspects and economic factors. So, we cannot discuss about a deeper analyse of consumer's beliefs regarding the organic sector, or if their knowledge regarding these products and the main benefits they come with (legislation framework, certification process, easy-identifying labelling system) are correctly assimilated and understood.

A future development direction of this paper can achieve an in-depth research regarding the consumer's knowledge on organic food in order to identify the main gaps. Furthermore, this can help in identifying the misunderstandings and their main sources in order to contribute in building informational materials that can develop a more sustainable organic market.

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## EMBEDDING INNOVATION IN BUSINESS MODELS: THE CASE OF HONDA MOTOR COMPANY

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### Abstract

Today's companies are competing in a turbulent global business world dominated by accelerating disruption, uncertainty and risk. The coexistence of a free open-source market and a proprietary market allows companies all over the world to dispose of more possibilities about designing their business models. However, by concentrating on innovation, they can obtain long-term growth and sustainable competitive advantage. This paper aims to illustrate the connection between innovation and business model at Honda Motor Company. The research method is based on a case study. This study demonstrates that there is a relationship between the concepts of innovation and business model. Also, it shows that Honda succeeded in embedding innovation in its business model.

**Keywords:** innovation, business model, Honda Motor, company, Soichiro Honda

**JEL Classification:** M1, O30

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### Introduction

In a turbulent global business world dominated by accelerating disruption, uncertainty and risk, knowledge represents the fundamental source of lasting competitive advantage. Today's successful companies are knowledge-creating companies that put innovation in the center of their business models (Nonaka, 2008). The coexistence of a free open-source market and a proprietary market at a global scale allows companies to dispose of more possibilities about configuring their business models (Greenberg, Hirt and Smit, 2017), but by concentrating on innovation, they can obtain long-term growth, sustainable competitive advantage, better competitive positioning and deliver higher customer satisfaction (AT&Kearney, 2008; Gerybadze et al., 2010; Jiménez-Jiménez and Sanz-Valle, 2011; PricewaterhouseCoopers, 2013).

Research and development (R&D) represents one of the main sources of innovation (Markovich, 2012). Strategies and business models based on innovation and focused on R&D are generating growth (Kinkel, Lay and Wengel, 2005; OECD, 2015a). In this respect, Honda Motor Company (HMC) has been ranked among the world's biggest R&D spenders and most innovative companies in the world (PricewaterhouseCoopers, 2014;

Boston Consulting Group, 2017). Entrepreneurship (e.g., the first Japanese company who set up a motorcycle plant in the United States in 1978) and innovation (e.g., the establishment of Honda R&D that became independent in 1960) are at the heart of Honda's business model (Mito, 2012).

The paper aims to illustrate the relationship between innovation and business model at HMC. As case study covers a broad variety of themes (Gerring, 2007), such as business and strategic management, the authors select it as the proper research method. The next section sets the theoretical framework of the paper. It follows the research methodology. Thereafter, the case of HMC is presented. The paper ends with conclusions.

### **Review of the literature**

There is a variety of ways in which the topics of innovation and business models have been addressed in the business literature in the past decades. Innovation has to do with “putting new or significantly improved products on the market or finding better ways (through new or significantly improved processes and methods) of getting products to the market” (OECD, 2015b, p. 60). Thus, from an epistemological point of view, innovation has the meaning of making something new (Tidd, Bessant and Pavitt, 2005). Innovation can be defined as “a mindset, a pervasive attitude, or a way of thinking focused beyond the present into the future vision” (Kuczmarski, 2003, p. 536), “the channeling of creativity so as to produce a creative idea and/or product that people can and wish to use” (Sternberg, Pretz and Kaufman, 2003, p. 158), “the management of all activities involved in the process of idea generation, technology development, manufacturing and marketing of a new (or improved) product or manufacturing process or equipment” (Trott, 2008, p. 15) or refers to “the development of new products, new processes, new sources of supply, but also to the exploitation of new markets and the development of new ways to organize business” (Szirmai, Naudé and Goedhuys, 2011, p. 5).

There are two types of innovation output (Andrew, DeRocco and Taylor, 2009): tangible outcomes (e.g., new products, formulas, designs and expertise) and intangible outcomes (e.g., new processes or ways of doing business). The tangible outcomes can be easily quantified and legally protected whereas intangible outcomes cannot.

The context is characterized by both the internal and external environment and highly determines innovation effectiveness (Drăgușin et al., 2015). The internal context features encompasses the number of employees, employee competencies, profits, sales, location, market share, organizational culture, strategic orientation, business strategy, aspects of the innovation strategy etc., and the external context characteristics include the type of industry, market turbulence, competitive intensity, intellectual property protection, technology intensity, new business models etc. (Huizingh, 2011).

In order to consider the way business models are related to innovation it would be beneficial to enumerate the main forms of innovation. In this respect, innovation refers to (Johnson, 2001):

- the creation of new product and/or service;
- new usages of a current product/service;
- any changes in markets exploited;
- any changes in the original operational and logistical design;
- any changes in the current business model of an organization.

A business model innovation can emerge in different ways such as adding new activities, changing the association of activities or replacing one or more parties that accomplish the

activities (Amit and Zott, 2012). Also, it can reshape not only companies, but also entire industries or economies.

A business model creates, captures and delivers value, and embodies the following four interconnected elements: customer value proposition (e.g., target customer), profit formula (e.g., cost structure), key resources (e.g., people), and key processes (e.g., product development) (Johnson, Christensen and Kagermann, 2008). In other words, the business model of a company can be described through its resources and competencies, its organizational structure, and its value proposition (Demil and Lecocq, 2010). A business model is a “concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture, and economics are addressed to create sustainable competitive advantage in defined markets” (Morris, Schindehutte and Allen, 2005, p. 727) and articulates “the logic, the data and other evidence that support a value proposition for the customer, and a viable structure of revenues and costs for the enterprise delivering that value” (Teece, 2010, p. 179).

In essence, the concepts of innovation and business model are connected with value creation and significantly contribute to achieving business performance.

### **Research methodology**

The research employs the case study method. As an empirical investigation (Farquhar, 2012), the case study enables to study the Honda phenomenon over a period of time, but especially in a contemporary context. The case study uses secondary data that were collected through a desk research based on an appreciable literature review. The sources were books, reports and journal articles from the domains of management, business, operations and production management, manufacturing and innovation, and were found in several libraries and electronic databases (e.g., Emerald Insight, Springer).

### **Innovation and Honda’s business model**

Soichiro Honda (1906-1991), the founder of HMC, was born in a small village outside of Hamamatsu, in Shizuoka Prefecture. In his early childhood, he helped his father, Gihei, a blacksmith, to repair bicycles. Soichiro did not prove to be interested in formal education, but he was fascinated by the mechanics of mobility and enchanted by the smell of motor oil (Rothfeder, 2015). He was very impressed when he saw a Ford Model T on the roads of his village and decided to invent machines.

At age fifteen, Soichiro dropped out of school, left home and headed to Tokyo to seek a job. He became an apprentice at Art Shokai, a repair shop. His innate technical expertise was rapidly pointed out by the Art Shokai’s owner. In a relatively short period of time, Soichiro turned into an experienced mechanic, repairing both automobiles and motorcycles. Later, he moved back home and opened a branch of Art Shokai there.

In the late 1920s Soichiro invented and produced a wheel with cast-iron spokes, which improved comfort and safety. Thus, he became a rich man and started to enjoy life a lot. In 1936, he established the Art Piston Ring Research Institute. In spite of his enthusiasm and technical talent, the piston rings produced were rejected by Toyota due to poor quality.

Soichiro learned from failure and decided to enroll at the Hamamatsu School of Technology in order to learn more about machining techniques and manufacturing. After obtaining enough knowledge, he founded a new company, Tokai Seiki Heavy Industry that became the sole supplier to Toyota and Nakajima Aircraft Company. Self-confidence,

courage, intelligence, perseverance and creativity were among the most important qualities that led Soichiro to business success.

After the Second World War, he established the Honda Technical Research Institute and started to produce motorized bicycles. The new bicycle with the A-Type engine was an instant hit and was followed by the D-Type, a true motorcycle. In 1948, the HMC was incorporated and opened up a small factory with 34 employees in Hamamatsu.

Later, Soichiro hired Takeo Fujisawa (1910-1988), an expert in sales and an advocate of the principle “Always tell your clients the truth”, who greatly helped the business to expand (Sato, 2006). They set up the Honda philosophy that consists of the fundamental beliefs (e.g., respect for individual), the company principle/mission statement and its management policies (e.g., “Proceed always with ambition and youthfulness”) (HMC, 2016). Also, fueled by Soichiro, the entrepreneurial spirit of HMC has been cultivated through a specific managerial approach that is both creative and destructive. The so-called “Hondaism” has been built on three fundamental rules as follows (Mito, 2012):

- Be original. Soichiro’s desire for originality found expression in its continuous search for developing Honda’s own technology. Unlike the other Japanese motorcycle companies that had prospered by imitating foreign brands, Honda avoided the temptation of copying and put accent on the pride of creation and original products.
- Do not rely on government. Honda’s management has understood that in order to become internationally competitive the company should not have to rely on government help.
- Work for your own sake. Honda’s management has always promoted an action-orientated attitude.

Last year, Honda Group encompassed HMC, 368 consolidated subsidiaries and 83 affiliate companies (HMC, 2016). Its principal businesses are motorcycles, automobiles, aircraft and aircraft engines, and power products. The last period witnessed good performances for HMC. Thus, the sales revenue grew continuously from 7,948,095 million yen in 2012 to 14,601,151 million yen in 2016 and the operating profit grew from 231,364 million yen in 2012 to 503,376 million yen in 2016 (HMC, 2016).

Honda’s success has been based on its business model, a model driven by innovation. HMC represents one of the most innovative companies as it was ranked no. 12 in 2007, no. 18 in 2013 and no. 48 in 2016 in the world (Boston Consulting Group, 2017). There are several main reasons that explain the fact that innovation is placed in the centre of Honda’s business model as follows:

- As an innovative leader, S. Honda promoted an entrepreneurial spirit that has found its reflection in Honda’s corporate motto, „The Power of Dreams”. This motto expresses „mobility, creativity, individual empowerment, and passion for work and play” (Rothfeder, 2015, p. 39).
- The organization of HMC is characterized by „innovation, devolution of responsibility, and individualism” (Mair, 1998, p. 287). For example, Honda has created a global flexifactory network. A flexifactory constitutes a factory „capable of changing the product makes with relative ease, at low cost and with great rapidity” (Mair, 1994, p. 6).
- Honda’s employees appreciate the harmonious working atmosphere, consider that they are members of a clan/tribe and, therefore, are stimulated to be innovative (Herbig and Jacobs, 1997). A good example is given by the so-called *waigaya*, unplanned meetings that allows the free flows of idea and promotes creativity.

- In the period 2012-2014, HMC was ranked among the biggest R&D spenders in the world (Table no. 1). R&D enhances Honda’s ability to assimilate and use the existing knowledge, generates new knowledge, and stimulates its general innovative potential (Paton and Karunaratne, 2009).

**Table no. 1: The top R&D spenders in the period 2012-2014**

2014 Rank	Company	2013 Rank	Company	2012 Rank	Company
1	Volkswagen (Germany)	1	Volkswagen (Germany)	1	Volkswagen (Germany)
2	Samsung (South Korea)	2	Samsung (South Korea)	2	Toyota (Japan)
3	Intel (USA)	3	Roche (Switzerland)	3	Novartis (Switzerland)
4	Microsoft (USA)	4	Intel (USA)	4	Roche (Switzerland)
5	Roche (Switzerland)	5	Microsoft (USA)	5	Pfizer (USA)
6	Novartis (Switzerland)	6	Toyota (Japan)	6	Microsoft (USA)
7	Toyota (Japan)	7	Novartis (Switzerland)	7	Samsung (South Korea)
8	Johnson&Johnson (USA)	8	Merck (USA)	8	Merck (USA)
9	Google (USA)	9	Pfizer (USA)	9	Intel (USA)
10	Merck (USA)	10	Johnson & Johnson (USA)	10	GM (USA)
11	GM (USA)	11	GM (USA)	11	Nokia (Finland)
12	Daimler (Germany)	12	Google (USA)	12	Johnson & Johnson (USA)
13	Pfizer (USA)	13	Honda (Japan)	13	Daimler (Germany)
14	Amazon (USA)	14	Daimler (Germany)	14	Sanofi-Aventis (France)
15	Ford (USA)	15	Sanofi-Aventis (France)	15	Panasonic (Japan)
16	Sanofi-Aventis (France)	16	IBM (USA)	16	Honda (Japan)
17	Honda (Japan)	17	GlaxoSmithKline (United Kingdom)	17	GlaxoSmithKline (United Kingdom)
18	IBM (USA)	18	Nokia (Finland)	18	IBM (USA)
19	GlaxoSmithKline (United Kingdom)	19	Panasonic (Japan)	19	Cisco (USA)
20	Cisco (USA)	20	Sony (Japan)	20	AstraZeneca (United Kingdom)

Source: PricewaterhouseCoopers, 2014



- Since its establishment, HMC has designed and developed an innovation culture and climate (Ahmed, 1998). This is why Honda became an „industry innovator” (Cooper, 2005).
- R&D and innovation encourage collaboration between companies through strategic alliances (e.g., Honda-Rover) and, therefore, facilitate the access to wider markets (Pilkington, 1999).
- The Japanese economy is a knowledge-driven economy that enhances the possibilities to innovate. In the period 2016-2017, Japan has been one of the most innovative economies of the world (Table no. 2).

**Table no. 2: The world’s most innovative economies in the period 2016-2017**

2017 Rank	2016 Rank	Country	R&D intensity	Total score
1	1	South Korea	1	89.00
2	3	Sweden	5	83.98
3	2	Germany	9	83.92
4	5	Switzerland	8	83.64
5	7	Finland	4	83.26
6	6	Singapore	14	83.22
7	4	Japan	3	82.64
8	9	Denmark	6	81.93
9	8	USA	10	81.44
10	11	Israel	2	81.23

Source: Jamrisko and Lu, 2017

In sum, HMC succeeded in embedding innovation in its business model. In fact, innovation is to be found everywhere at Honda, either in organization (e.g., flexifactories) or in products (e.g., robots).

### Conclusions

In today’s global business world innovation represents a challenging attempt for any company. Placing innovation at the heart of their business models still remains one of the most difficult endeavors for companies around the world.

This study aims to make two contributions both from a theoretical and practical point of view. Firstly, it shows that the concepts of innovation and business model are connected through the concept of value creation. Secondly, the research reveals that HMC constitutes a valuable case study in which the Japanese company demonstrates its full commitment towards embedding innovation not only in its business model, but also in its business philosophy.

Future researches may identify other relationships between innovation and business models or expand the analysis to other companies.

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## **WORK LIFE BALANCE AMONG ROMANIAN EMPLOYEES: AN EMPIRICAL STUDY**

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### **Abstract**

The concept of work-life balance (WLB) has raised the attention of a large number of researchers and professionals, due to its direct impact on work efficiency and life quality as well. Although the specific international literature includes plenty of studies, this research topic was not so intense in Romania. In this context, the paper is based on a study among Romanian employees, aimed at achieving an image of the balance between those two components of life: work and family. More than that, this research highlights the factors influencing this balance, the extent of involvement of organizations, and the employees' perception of the level of stress, as result of WLB.

**Keywords:** work-life balance, employees, work satisfaction, work stress

**JEL Classification:** M54, J28

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### **Introduction**

Work Life Balance (WLB) has received ample research attention in the whole world in the last years. However, there are few studies regarding this equilibrium among Romanian employees. Thus, the purpose of this study is to map the dimensions of WLB in Romania, envisaging both Romanian companies and multinational companies.

### **1. Literature review**

The relationship between work and personal life has various aspects and dimensions equally important and interdependent. Some academics argue that WLB represents one of those interest areas of human resource management (HRM) for which practice has developed before theory (Brewster, 1998). The European Foundation for the Improvement of Living and Working Conditions (Eurofound) has highlighted the family's role in individual development and has stressed the need for supporting a balanced family life. "Family friendly working conditions and competitiveness are not a contradiction in terms" (EFILWC 1998). The phrase „family friendly policies” was afterwards replaced with WLB

(Bryson et al., 2000; Hogarth et al., 2001; Duncan, 2002). Kofodimos (1993) has shown that it is in the interest of the individual to live a balanced life.

WLB was defined as proper functioning and satisfaction both at work and at home, without any role conflict (Clark, 2000). Proper balance between personal and professional life can be achieved when a person is able to meet all its own needs in terms of family, work and society (Warren, 2004). Marks and MacDermid (1996) put forward for consideration that individuals are able – and actually should – to commit to equally valuable roles in life; this means they should have a balanced orientation towards more roles. Kirchmeyer understands a balanced life as “achieving satisfying experiences in all life domains, and to do so requires personal resources such as energy, time, and commitment to be well distributed across domains” (Kirchmeyer, 2000).

Work-life balance definitions implicitly refer to two components of the balance: the inputs and the outputs. The inputs are personal resources (Kirchmeyer, 2000) assigned to each role. To be balanced, it is necessary for each role related to work and family to be treated with a similar level of attention, time and commitment. The other component of the balance refers to the results obtained as a result of the roles the individual has committed to in work and family life. A result frequently included in WLB definitions is satisfaction (Clark, 2000; Kirchmeyer, 2000; Kofodimos, 1993).

Based on these aspects, other researchers have proposed three components of the WLB: a) time balance - an equal amount of time dedicated to work and family roles; b) involvement balance - an equal level of psychological involvement in work and family roles; c) satisfaction balance - an equal level of satisfaction with work and family roles (Greenhaus et al., 2003). The benefits of attaining work-life balance aim both employees and organizations by: eliminating work-family conflict, increasing job satisfaction, developing organizational commitment and organizational citizenship behaviour (Kopelman et al., 2006).

Among the most important factors influencing the nature and extent to which organizations adopt practices aimed at balancing work with the personal life of employees can be found: the size of the enterprise (Konrad and Mangel, 2000), the sector of activity (Tremblay, 2004), the percentage of women holding managerial positions (Galinsky and Bond, 1998), the need to achieve a high level of employees' commitment (Evans, 2001), public sector unionisation (Wood et al., 2003).

## **2. Research methodology**

Both professional and personal life are fundamental benchmarks in the existence of modern man. Therefore, research is necessary and timely. Taking into consideration those two components of life: work and family, and the balance between those, the main aim of this scientific initiative is identifying the relationship between those two components, by discovering whether one has a more powerful influence on the other. Consequently, the research objectives are: O1 – Identifying employees' perception regarding the balance between professional and personal life; O2 – Highlighting the factors influencing the balance between professional and personal life; O3 – Establishing the extent of involvement of organizations in balancing professional and personal aspects; O4 – Determining employees' perception of the level of stress.

In order to achieve the research objectives, it was conducted a survey, based on personal interviewing, the statistical population being represented by persons who had a job in the last 3 months, in a company activating in Romania. In the questionnaire, there were used

close-ended questions, with scales as: semantic differential and Likert scale. The data was collected using an online questionnaire, between 22<sup>nd</sup> April and 27<sup>th</sup> May 2016. As a result of the survey, there were collected 354 valid responses, the profile of the respondents, from a professional point of view, being presented in Table 1.

Regarding the personal profile, most of the respondents are young, 66.67% of them being younger than 36 years old. Only 17.23% of the ones interviewed are aged between 36 and 45 years old, while 13.84% of the respondents are in the mature stage of their career, as they are aged between 46 and 55 years old. Furthermore, 63.28% of the respondents were women, while the other 36.72% of the ones interviewed were male employees. The marital status of the respondents seems to be in correspondence with their age, as more than half (52.54%) are unmarried and 41.81% are married or in a relationship (and already live with their partner). Moreover, 11.58% of the respondents live alone. Considering the fact that 52.54% of the respondents are not married, one can argue that the ones interviewed continue to live with their parents or other relatives. Most the employees who took part in the survey (35.03%) are part of a 3-member family, while 27.97% belong to a 4-member family. Although 42.94% of the respondents were or are still married, only 22.88% have children under care. In terms of the level of education, the majority of the respondents are highly educated, as 58.19% have a bachelor degree and 21.19% have a post-graduate degree.

**Table no. 1: Respondents' professional profile**

<b>Position occupied</b>					
<b>top-management</b>	<b>middle-management</b>	<b>first level management</b>	<b>specialist</b>	<b>assistant</b>	<b>executive</b>
4.52%	13.56%	9.61%	20.90%	9.32%	38.70%
<b>independent consultant: 3.39%</b>					
<b>Employer</b>					
<b>state owned-company</b>	<b>private company</b>		<b>mixed ownership corporation</b>		
20.34%	75.42%		4.24%		
<b>Type of employer</b>					
<b>multinational company</b>	<b>big Romanian company</b>	<b>small or medium sized Romanian company</b>		<b>microenterprise</b>	
43.22%	19.21%	32.49%		5.08%	
<b>Number of jobs held in the present</b>					
<b>one job</b>	<b>two jobs</b>		<b>three or more jobs</b>		
92.94%	5.65%		1.41%		
<b>Level of monthly income (lei)</b>					
<b>less than 1200</b>	<b>1200-2000</b>	<b>2001-3000</b>	<b>3001-4000</b>	<b>4001-5000</b>	<b>more than 5000</b>
12.99%	40.68%	24.86%	10.45%	4.24%	6.78%

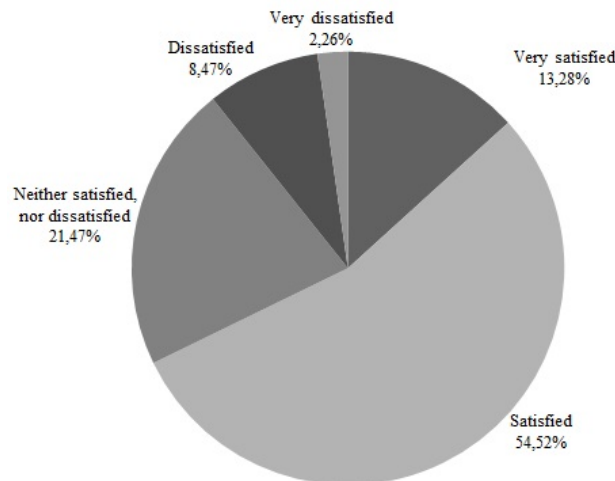
In terms of their professional profile, 27.69% of the respondents hold managerial positions, while the majority (38.7%) are employed for an executive position. Only 3.39% of the ones interviewed work independently. Furthermore, 75.42% of the respondents were, at the time of the survey, employed in private-own companies, while 20.34% were working for state-own companies. In terms of the type of the company the respondents worked for, the

majority (43.22%) were employed in multinational companies, while another considerable percentage (32.49%) were working in a small or medium sized Romanian company. Only 19.21% of the ones questioned were working in a big Romanian company, while even less (5.08%) were employed in a microenterprise. An interesting fact for the purpose of this research is that almost all of the respondents (92.94%) had, at the time of the interview, a single job, only 7.06% of the ones questioned having two or more jobs. Last, but not least, in terms of the level of the respondents' monthly net income, the majority (40.68%) stated that they earn between 1200 and 2000 lei, while almost a quarter (24.86%) reported a net income between 2001 and 3000 lei. While 21.47% of the respondents earn at least 3000 lei, 12.99% of them gain less than 1200 lei.

**3. Main results and discussion**

After centralizing and processing the data obtained by conducting the survey, there were highlighted two lines for grouping information: on one hand there are the aspects related to work-life balance and on the other hand there are the ones related to the role of stress in employees' life.

For the first category, including objectives 1, 2 and 3, the following conclusions can be drawn. Regarding the first objective, a primary observation relates to the employees' satisfaction with their working schedule, nearly 55% declaring themselves as satisfied. In contrast, only 11% are dissatisfied or very dissatisfied, as presented in Figure no. 1. The share of those neutral ore hesitant about this aspect should also be mentioned, as it is higher than 21%.



**Figure no. 1: Romanian employees' level of satisfaction regarding their working schedule and the manner it fits with their private life**

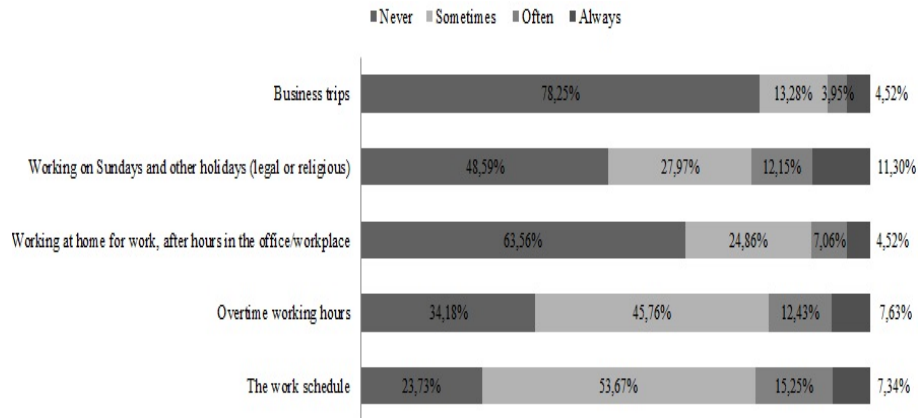
A second observation relates to how individuals perceive that they can play a role in balancing their professional life with their personal one. Thus, 81% consider that it is in their power to obtain this balance, while the remaining 19% deny having such influence.

A third conclusion refers to the impact that work and family have on each other. The research reveals that work problems tend to reflect on personal life (this happening "always" in 15% of the cases and "sometimes" in 38% of the cases). Otherwise, 74% of the



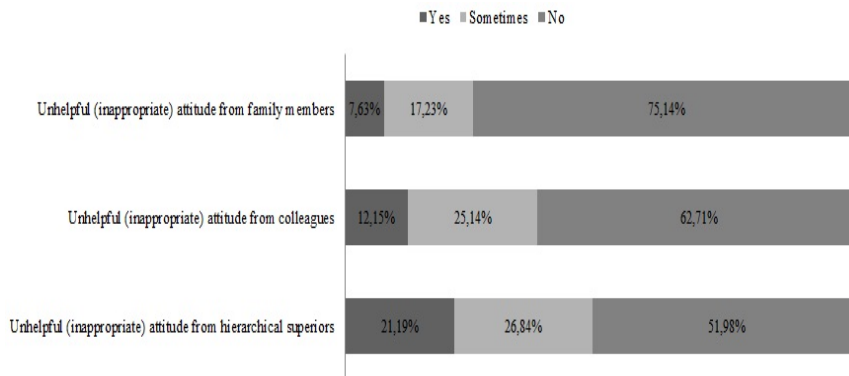
respondents consider that they address their work tasks properly, regardless of their private life. Only 4% of the respondents always take their private problems to their working place, while 22% occasionally do so. However, the fact that more than half of the respondents have highlighted the negative impact of professional life on their personal life indicates a certain level of job pressure.

Related to the second research objective, based on the previous studies presented in literature, the most “disturbing” two factors in this WLB seem to be work schedule and overtime working hours. However, not even these two are mentioned with a considerable frequency, as, for example, only 23% of the respondents consider that their working schedule is often or always responsible for damaging WLB. All results related to this aspect are presented in Figure no. 2.



**Figure no. 2: The frequency with which specific factors affect the work-life balance of Romanian employees**

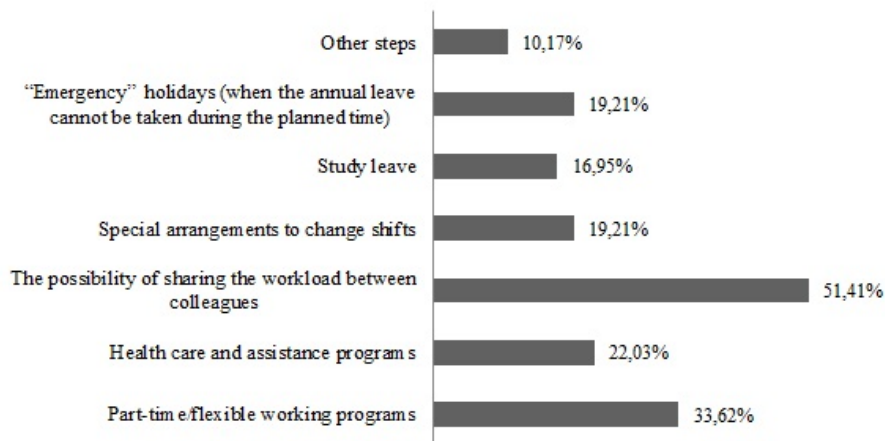
Strengthening the individual role in balancing personal life with the professional one is highlighted in another specific question of the research instrument (Figure no. 3).



**Figure no. 3: Situations affecting the work-life balance of Romanian employees**

As a result, a large number of the respondents considered that inappropriate attitudes from family, colleagues and bosses do not affect them (266, and 222 of the responses, out of the total 354). However, employees are affected by the attitude of their superiors (as in 27% of the cases this occurs sometimes and in 21% of the cases it always occurs). This suggests that the direct relationship with the superior is very important, as it can support or even hinder the personal life of employees.

The organization of the XXI<sup>st</sup> century is no longer a formal environment, designed to create profit. In the context of the new challenges of human resource management, managers should be empathic with their employees' needs. In other words, the moral responsibility of the organization can be extended outside office hours. The present study has tried to identify the involvement of organizations in balancing professional aspects of life with personal ones (the third objective of the research). The results have highlighted the existence of a variety of measures implemented, on average, two per entity (Figure no. 4).



**Figure no. 4: Steps taken by Romanian organizations to help employees achieve balance between work and private life**

The measure most often indicated by respondents (in over 50% of cases) is the possibility of sharing the workload between colleagues. This requires good communication and trust, helping to strengthen team spirit. Employees have also indicated the opportunity of working part-time or according to a flexible program (in more than a third of the cases), while health and assistance programs were mentioned in 22% of the cases. Organizations in Romania are willing to accept shift changes, but also "emergency" holidays. Although these two practices occur in less than 20% of the cases, one can argue that managers' efforts to meet spontaneous needs of employees should be appreciated. A lower frequency occurred in the case of counselling (through which employees learn how to overcome problems related to work-life balance), personal service (child feeding room for mothers, bedroom, purchasing and food preparation services etc.) and dependent care (services and resources to help employees with dependents, either children or adults).

Last, but not least, the fourth objective of the research aimed to reflect employees' perception regarding their level of stress. As a result, out of the 354 respondents, 69% admitted that they have experienced stress at the workplace. Family also exerts pressure,

but only in 54% of the cases. The results confirm the place held by this complex psychological phenomenon. However, only 14% of the respondents stated that they have medical conditions generated by stress, such as cardiac problems or high blood pressure. This can be justified by the fact that 67% of the respondents are young, but also by the lack of recognition of the impact that stress can have on humans or the lack of an assessment of the real state of their own health.

It is known that stress can generate three categories of problems: physical, emotional and psychological. Almost half of the respondents admit that they have felt, to some extent, physical and emotional problems caused by the conflict between work and personal life. 33% of the respondents also indicate psychological problems. It can be concluded that the sample is divided in two approximately equal sectors: on one hand, those who deny the presence of symptoms that may be associated with stress and on the other hand, those who admit having faced such problems.

### **Conclusions**

These results suggest that the majority of Romanian employees are aware of the fact that when imbalances occur in their life, individual decisions should be taken. Each modern man should be the master of his own life and should have the maturity of taking actions when things get out of control. But, as a result of this study, one can argue that Romanian employees prove to be good professionals by trying to fulfil the tasks related to the job.

There have been identified five factors that influence the work-life balance: the work schedule, overtime working hours, working at home for work (after hours in the office/workplace), working on Sundays and other holidays (legal or religious) and business trips.

Stress, now unfortunately becoming more frequent in the life of modern man, is a phenomenon that should not be neglected by the individual or the organization. It occurs gradually and often underpins changed attitudes and behaviours of the person. Moreover, the perception can be negatively influenced, by exacerbating concerns related to aspects of personal and professional life. Sometimes, stress can cause more complex phenomena such as burnout.

An extremely effective way of combating stress and overcoming obstacles related to WLB, counselling is still in early stages in Romania, due to the lack of management's proper understanding of the concept and its related costs. Whether this balance will be maintained in the future, is something to look forward to.

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## **CHALLENGES IN MANAGING IT INNOVATION AND DEVELOPING CONSUMER AND BUSINESS VALUE ON NEW MARKETS: CASE STUDY – SOCIAL GAMING ON THE CHINESE MARKET**

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### **Abstract**

The social gaming industry is an innovative domain in the IT field that has gathered millions of users worldwide in recent years. In a short period of time, competition has increased in the social gaming field and thousands of applications are now available to the consumer, thus expanding on new markets has become a necessity for a growing business. Bringing value to these specific consumers and, in turn, to the business can be tricky, however. This paper is based on a qualitative research - an exploratory case study following a single case design, that aims to identify the diverse challenges a western IT company encounters when adapting to a new market, very different culturally and socially, namely the Chinese market. It intends to proceed a future survey that could validate the hypothesis highlighted at the end of this research.

**Keywords:** IT, managing innovation, consumer, business value, Chinese market

**JEL Classification:** O30, M10

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### **Introduction**

Society nowadays is increasingly used to innovative technology, particularly in the communication field. People have been accustomed to having a personal computer for a while now and, currently, prefer switching to mobile devices like laptops, tablets or smart phones. Most, especially representatives of the Y Generation, opt for building relationships through online environments like social networks, email, internet based chat platforms, etc. (Onete, Teodorescu, Vasile, 2016). Innovative applications have been developed for these platforms, some gathering millions of users worldwide. In the entertainment field one particular area is social online gaming.

It refers to online games, generally played on social platforms, such as Facebook or available in online application stores, like Android, Amazon, iOS. The complexity of the internet global market can make it difficult for a company in this area to adapt its products and make them attractive to consumers from the other side of the world. Challenges of different type can appear when adapting to new markets, thus affecting business value.

This research analyzes the case of a western social gaming company that decides to enter the Chinese market, and highlights the variables that can influence consumer and business value.

### **1. Insight into Generation Y's view towards IT res - the increased popularity of social gaming**

Communication technology is increasingly present in people's lives nowadays. Being constantly in touch with one's social network and, implicitly, owning a smartphone has become almost a basic need. Studies (Ozkan and Solmaz, 2015; Can and Kaya, 2016; Muller, et.al 2016) go as far as towards raising awareness of the possible addictive role these devices have.

According to researchers in the field of sociology (Howe and Strauss, 1991 cited in Dhanapala, Vashub, and Subramaniam, 2015, p. 110), a way to categorize people is according to the era they were born in and the similarities they manifest as a result of common life experiences generated by historical events.

Thus, current society is formed of 4 generations: the Silent Generation (born 1933 -1945), Baby Boomers (born 1946 to 1964); Generation X (born 1965 to1980); and Generation Y/Millennials (born 1981 to 2000) (Cekada, 2012). These are followed by Generation Z - those born after 2000.

Generations Y and Z in particular, and, as a consequence of society's evolution, also older generations, use the internet frequently, however they're online activities and views towards technology are different. While Generations Y and Z have been accustomed to communication technology since they were born and see it as an essential part of daily life, older generations go online with a specific purpose, to accomplish a task and then log out (Cekada, 2012).

Contemporary trends, such as and enhanced internet connectivity worldwide, increased access to technology and globalisation, make generations Y and Z less affected by geographical variables; they are generally the generations with the highest degree of formal education, fervent users of social media and IT technology and more financially endowed (Dhanapal, Vashu and Subramaniam, 2015).

Initially, the internet was seen as way to share information from a small number of 'owners' to a group of select 'receivers', through sites. They would use this data mostly in specialized areas of knowledge, thus generating mostly a one - direction flow. After the 2000's, with the development of the World Wide Web, there has been an increase in number of users and a diversification of types of online interactions; more individuals could participate in creating and sharing content, through, blogs, social platforms, etc. (Brengearth and Mujkic, 2016).

With the development and rise in popularity of Facebook, different types of applications have also been designed. Games like, Candy Crush, Clash of Clans, Farm Heroes, have gathered millions of users worldwide. Candy Crush Saga alone, as the most popular Facebook gaming application, according to online statistics site statista.com, has had over 10 million daily active users in October 2016.

These type of games are generally characterized through easy-game play, a system of challenges, hierarchy through levels and rewards for achievements (Harvest Strategy Pty Ltd, 2014). They also have a social component, allowing the user to identify himself through an avatar and share his achievements with his friends, exchange in-app benefits and communicate and develop a social network.

Given the characteristics of the current generations and the progressive increase in popularity of social networks (Facebook alone has reached 1.8 billion monthly active users in the 4th quarter of 2016, according to [statista.com](http://statista.com)), one can expect a future rise in demand also for social gaming applications.

## **2. Consumer satisfaction in social gaming - a capital requirement in achieving business value**

In any online business, there are risks that consumers submit themselves to. One of the most important is data breaching. From accessing financial information to personal information, from malware, to spamming, the security of the online user can be a delicate matter and a few bad experiences made public can have a significant impact on the non-users' willingness to go online. Even for those already online, security risks can impact their willingness to give personal information, in case of social media for example, or use certain services, such as online payments, both being paramount for any social gaming company that aims to attract new users. An anonymous saying related to the topic states that 'there are 2 types of online companies: those that have been hacked and those that don't know they have been hacked' (Can and Kaya, 2016). According to [internetsociety.org](http://internetsociety.org)'s report, there has been an increase in Google searches for the term 'data breach', internet users being more and more concerned about their cyber safety.

Thus, one of the basic requirements in ensuring consumer value, for a social online gaming business is to invest in data security and offer its clients a safe online environment.

Although most social gaming applications are advertised as being free to play, a lot of them offer the possibility to buy in-app benefits or tokens that can help players advance through levels faster. Some might be misled into believing the tokens can be turned back into real money, which is not the case for social gaming applications. The balance one has can only be played in the game. Ensuring clear information that can't be misinterpreted by users is another crucial aspect in ensuring quality services for gamers.

Furthermore, the social character of the games, means that most games have networks of players that form game-related online groups, where they share their experiences, likes and dislikes about the game. Social games that are downloaded through app stores are also rated and feedback sections on the app store are available for users that have downloaded the game. Hence, consumer satisfaction is highly important for a business in this field, where a bad experience can be easily shared with others and generate negative outcomes for the company.

Besides security and clarity in information, the game itself should attract and motivate the player to come back. One study in this field (Merikivi, Tuunainen and Nguyen, 2017) points out that ease of use, novelty, design aesthetic, and challenge are factors that make a player be loyal to a certain game. In current society, time has become an increasingly precious resource, an easy to use interface that doesn't take a long time to load can be crucial for choosing a certain social gaming application. Furthermore, there are thousands of applications on Facebook and in the mobile app stores, and uninstalling one only takes a few seconds, so a game in this domain should constantly bring new content and strive to maintain a high quality in design. Some applications go as far as offering personalized games for a certain user: one can upload his own pictures in the game designs, for slots for example. In the current case, when deciding to move to the Asian market, culturally specific themes or designs could help promote a certain game.

### 3. Case study - social gaming on the Chinese market

Internet access worldwide has improved in recent years, internetlivestats.com site showing that 3.4 billion people were connected in July 2016 and the trend is expected to be ascending for the years to come.

China has seen an increase in internet access in the past 10 years and the same site shows over 721 million Chinese people being online in July 2016, representing 21% of the global internet users.

Although the Chinese government strictly controls internet access, on the base of moral goodness, personal security, and social stability (Cui and Wu, 2016), more Chinese have access to social networks and social gaming applications and the size of the potential market makes it attractive to companies in the field. Taken these into consideration, the following research question emerged: what variables can influence the performance of a US social gaming business when accessing the Chinese market?

The case study method has been used to attempt an answer for this question, because the aim is to research contextual conditions that can affect the studied phenomenon, namely the decision to enter the Chinese market.

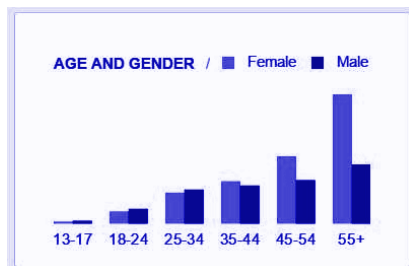
The case study propositions that will be tested through the study are:

- Boundaries in internet availability and social platform access can influence the access of a social gaming company on the Chinese market
- Language barriers can influence communication
- The real size of the market can be incorrectly estimated

The analyzed company has been operating on the social gaming market since 2010, launching the first social gaming slots application at that time: Slotomania, on Facebook, and currently owning 7 different casino themed social gaming applications, according to the company's official site. Together, all these 7 applications have over 30 million daily active users and one of the applications, Vegas Downtown slots, has been awarded by Facebook among 2015's best web games.

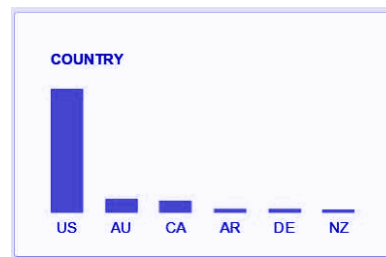
One of the main focuses of the business is bringing new content constantly to players and ensuring a high level of customer support, through a specialized support department handling all tickets from all paying customers and an exclusive VIP department for high paying customers.

The main players of the application are from US, followed by Australia and, in smaller proportions, other regions of the world, as seen in figure no. 1, and most of them are female, 55 or older, as seen in figure no. 2.



**Figure no.1: Age and sex characteristics of users of a social gaming application**

Source: HoF Facebook statistics, 12 March 2017



**Figure no.2: Distribution of users according to country**

Source: HoF Facebook statistics, 12 March 2017



Furthermore, most players come from countries with a ‘western’ culture, such as US, Australia, Canada. Given the size of the potential Chinese market and also, as a result of noticing a recent increase in the number of new Chinese players that purchase high amounts of tokens in the application, the management decided to take a few marketing decision to make the game more appealing to this market as well. One of the decision, was to create Chinese themed games. In the past year 8 Chinese themed games have been developed by, meaning 7% of the total 116 games the application offers its players and 3 of these are among the top 10 most liked and most profitable games of the application, showing that they can be appealing to the western players as well.

Along with the themes of the games, management also choose to post on the applications Facebook wall, Chinese holidays, such as the Chinese Rooster new year or the Lantern festival and create special promotions related to this. These have generated higher income than in regular days, proving the success of the measures taken. All these have supported the management of the company into considering that boundaries in internet access or social network availability have little influence on reaching the Chinese market. Furthermore, the viral character of the games, especially on Facebook, can aid in bringing more users, in time.

One particular issue, that management has encountered was related to its customer support department. Along with an increase in the number of Chinese users, a rise in the number of tickets written in Chinese has been noticed and two major issues also developed: on the support softwares used for replying to payers, the Chinese characters have been translated into unintelligible characters, which required research and tests from the technical team in order to develop the software and avoid this in the future (Olaru et al, 2015). Once the characters have been correctly shown by the system, another situation arose: difficulties in translating correctly players’ messages, with the online softwares available. This meant more time spent by support agents with interpreting the ticket, an increase in email exchange with the player for clarifying the situation and a decrease in customer support satisfaction indicators, such as: time of reply or first reply resolution.

Thus, language barriers have proven to be a challenge in ensuring quality customer support for Chinese players.

When considering a 721 million market, according to internetlivestats.com, in a country with a growing economy, one can lean towards being too optimistic about the product’s success here. Some of the aspects that should be taken into consideration are also the unequal distribution of income in China’s population, their cultural traits, such as inclination towards saving rather than spending money, the fact that casinos and casino games are banned by Chinese law and so on. Whereas western consumers, have been more exposed to the availability of land based as well as online casinos and to these types of games as whole, most Chinese gamers have had little or no contact to these type of games, and their reaction to them can be unpredictable. Thus, taking decisions regarding how much a gaming business should focus its resources towards attracting specifically players from China, through specialized content, or aiming for a general development strategy, can prove challenging.

### **Conclusions**

Increase in internet availability as well as access to technology has lead to current generations’ positive approach towards IT innovations, which they see as a normal part of their lives.

An important online activity is communicating through social platforms and, based on these, a new IT domain has developed: social online gaming. Such applications have gathered millions of users worldwide in a relatively short time span.

For companies in the field, an important aspect is to minimize the risks a consumer subjects himself to, when deciding to go online. Security risks, clear information, attractive content and specialized support are all aspects that need to be taken into consideration when striving to ensure consumer and business value.

The case study aimed to research what variables could influence a US social gaming company's decision to enter the Chinese market.

Hence, boundaries in internet access or social network availability have had little influence on the success of the application analyzed, boundaries in communication have proven however to rise challenges and the real size of the market as well as the resources allocated into attracting Chinese players should be submitted to a more thorough research before taking management decisions.

Given the increasing number of online consumers and the ascendant trend of both social platform and social gaming applications' popularity, future studies in the field should be conducted.

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## GRADUATE STUDENTS SATISFACTION OF BUSINESS ADMINISTRATION BACHELOR'S PROGRAM

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### Abstract

Higher education institutions are increasingly aware about the need to deal with many competitive pressures and important challenges related to continuous adaptation to labor market requirements. In this competitive framework, only those institutions which provide high quality education for their students to meet the expectations of the international labour market can survive. Under these circumstances, higher education institutions put greater emphasis on student satisfaction that occurs when perceived performance meets the students expectations regarding curricula, usefulness of studied subjects related to individual preferences and requirements of the labor market, quality of teaching process and information resources available for students, communication with teachers and other faculty staff members etc.

With the objective of knowing the opinions of license graduates in the Business Administration field concerning the quality of the educational service and to acquire deeper understanding about the factors influencing their satisfaction, an extended research was conducted to determine overall satisfaction about the educational offer of the Faculty of Business and Tourism from Bucharest University of Economic Studies and the assessment of the utility of the subjects provided by the faculty. The results of the research revealed that the majority of respondents have a positive assessment of the quality of educational activities relating the teachers and the support staff as well as the resources available to the students during their university training process.

This study is helpful for academics in order to learn more about the nature and predictors of student satisfaction and to identify and address areas in need of improvement, especially regarding academic curricula. Also, this study is useful for labor market and business representatives for understanding the competences and abilities gained by graduates in Business Administration and setting the requirements for future employees.

**Keywords:** higher education; student satisfaction; Business Administration degree program; curriculum; labor market

**JEL Classification:** A22, I23, M10

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## **Introduction**

After signing in 1999 the Bologna Declaration, the EU countries started an educational reform. Changes in the higher education system precipitate reorganizations and increasing competition among institutions (Tóth and Jónás, 2014). The fundamental structural changes of the Romanian higher education system make it imperative to address the issue of quality of educational process. On the other hand, the Romanian business environment is facing a number of challenges that need to be addressed by academic curricula considering that correlation between curricula and labor market requirements is a key issue of modern education and a primary pillar of the Bologna process (Marin, Horobeț and Belășcu, 2015). In this context, Romanian universities understood the importance of developing strategies considering all these factors that impact the academic environment.

In order to develop such strategies, first of all, is necessary to assess the level of satisfaction of the undergraduate and graduate students of higher education institutions regarding educational programs provided by the Romanian universities. As mentioned by Stukalina (2014), understanding the factors behind the student satisfaction may provide universities with the tools needed to improve the quality of their services. Evaluations of educational programs by students and graduates are a useful means for gathering feedback about the overall delivery of courses and services offered by an university and are used to inform staff and decision-makers about relevant issues that can impact the educational programs (Office of Academic Planning and Assessment - OAPA, 2001).

Under these circumstances, a survey was conducted among young people who have completed the undergraduate program in Business Administration of the Faculty of Business and Tourism from Bucharest University of Economics Study in order to identify their degree of appreciation regarding attributes such as: quality of teaching activities related to courses and seminars, usefulness of Bachelor's curricula in regard to their career development goals, the opportunities for interactivity during class activities, communication with teachers and auxiliary personnel, resources and teaching materials provided by the university etc.

## **Literature review**

Higher education degree programs are expected to provide tangible benefits to students, employers, and society. Their purpose is "to equip students with the essential knowledge, skills, and habits of mind needed to become competent workers, as well as productive citizens" (Bright and Graham, 2014, p.17). Educational programs that enhance the satisfaction of students are more likely to produce the outcomes that are valuable to students, society, and the workplace. However, to increase satisfaction of students is necessary the knowledge of the factors that determine their satisfaction, the aspects that contribute to favorable assessment of the study programs.

Student satisfaction is "a short-term attitude that results from evaluating their experience of the education service" (Elliott and Healy, 2001). According to Abrudan, Plăiaș and Dabija (2015), satisfaction is based on customer expectations and perception of service quality. The concept of the student as a customer is now commonplace in higher education. Some authors (DeShields, Kara and Kaynak, 2005) even talk about the need to adopt a consumer-centric approach in the educational services, a principle which is now widely used within for-profit institutions, while other authors, like Sirvanci (1996), consider that students are rather partners in the learning process than customers.

In academia there is a keen competition between higher education institutions, given that prospective students must choose from a wide range of specializations, must determine whether to study in a public education institution in the detriment of the private higher education institutions or they must decide whether to study in their country or abroad. On the background of this increased competition and, also, the changing demographics in the population and declining enrolments, universities must adopt an entrepreneurial approach in order to better serve their customers/students. In this context, is very important for an university to listen “the voice of students” to better understand the reasons behind choosing a particular university and, further, to know the degree of satisfaction of the enrolled students and, also, the perception of the graduates regarding curricula, academic staff or other features or attributes of the university.

Student satisfaction surveys are commonly used as feedback to determine the delivery of education. The surveys can also gather information about former students’ academic achievement and their employment and further education outcomes. Student and graduates’ satisfaction and the quality of education from their perspective are of compelling interest to students, academic staff and policy-makers. Satisfaction surveys can serve as a tool for planning and implementing continuous improvement activities by higher education institutions in order to adapt to the changing circumstances of the business environment and the labour market (Tóth and Jónás, 2014).

It is obvious that no single factor explains (dis)satisfaction among students; there are a range of academic, personal and financial factors. Recent studies (Alzamel, 2014; Priya, Bhadouria and Charu, 2013; Sweeney, 2016) have found that student satisfaction is strongly related to a range of important factors within the control of the higher education institution, such as quality of lecturers and teaching, learning resource, facilities and staff, campus atmosphere and climate, assessment and feedback, design and delivery of service, cost of education, nature of the learning environment, reputation and recognition of the institution and its programmes etc. There are also many factors external to the institution which may cause dissatisfaction among students and disruption to their education such as financial problems, family issues, student motivation, self-confidence, effort and anxiety about their personal ability (Sargent, Borthick and Lederberg, 2011; Sweeney, 2016; Thompson and Prieto, 2013). These findings are consistent with other studies (Gorgan, C. and Gorgan, V., 2014; Marin, Horobeţ and Belaşcu, 2015; Săvoiu et al., 2014) undertaken among undergraduate and graduate students of the economic faculties in Romania. Studies on graduates from Romanian economic higher education institutions indicate a positive attitude and a perception of relative contentedness regarding the opportunities offered by the economic faculties, but emphasizes the need for universities to focus their attention both on the students’ needs as well the employers’ need in order to harmonize the two sides of the labor market (Marin, Horobeţ and Belaşcu, 2015). In this regard, the role of graduates is even more important because they should participate actively to this process, mainly by providing active feedback to universities on how well the academic curricula is fitting the labor market requirements.

### **Methodology**

In the sight of clarifying the aspects highlighted by the literature it was carried out an exploratory research among some older students and master graduates that studied in business administration.

The target of this research was to determine the degree of satisfaction of the license graduates in the Business administration field offered by the Business and Tourism Faculty. The objectives followed were:

- The identification of how useful the license studies are in business administration;
- The evaluation of the quality of the didactic activities, the relationship with the teachers and the auxiliary personnel and the resources provided for the students during their training for the license as well;
- Measuring the degree of importance granted to the mandatory and optional classes studied within the Bachelor's degree in Business Administration.

The hypotheses pursued in this research were developed in line with the purpose and the objectives above.

Those assumptions were:

1. Most respondents have a favourable attitude toward undergraduate studies in business administration;
2. The majority of respondents have a positive assessment of the quality of educational activities relating the teachers and the support staff as well as the resources available to the students during the preparation for their license;
3. Among the research participants we can acknowledge significant differences regarding the degree of importance of the subjects studied in the Faculty of Business and Tourism.

The research was carried out between 10 January to 15 March 2017 and was based on a structured questionnaire, which contained 26 questions. The content questions were closed. The closed questions had an unique, simple, of the rating scales type, as well as matrix responses. The questionnaire was posted on the website [isondaje.ro](http://isondaje.ro) and participation was voluntary. Therefore, the questionnaire was self-administered.

The sample studied was randomly chosen, being based on the voluntary choice of respondents to participate in the research. Although not representative, the sample is relevant from the perspective of some people who attended undergraduate studies in Business Administration from the Faculty of Business and Tourism. The sample used consists of 294 people who graduated from the Faculty of Business and Tourism (formerly Commerce) in the period 2009-2016, with the structure shown below, in Table no. 1.

**Table no. 1: Respondents distribution according to graduation year**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2009	6	2.0	2.0	2.0
	2010	30	10.2	10.2	12.2
	2011	12	4.1	4.1	16.3
	2012	21	7.1	7.1	23.5
	2013	21	7.1	7.1	30.6
	2014	30	10.2	10.2	40.8
	2015	75	25.5	25.5	66.3
	2016	99	33.7	33.7	100.0
	Total	294	100.0	100.0	

The data was processed using the SPSS 23 version and in the analysis there have been used various methods: analysis of the frequencies and structures, medium, standard deviations, correlation, analysis of variance (ANOVA), F and t tests, as well as comparisons of environments throughout testing a sample.

### **Results and discussions**

An important section of the survey was dedicated to the evaluation of compulsory and optional subjects during the preparation in the license cycle. The evaluations were made on a 6-speed scale, where the 1st meant not at all important, and the 6th very important. Questions were of the matrix type and included all subjects taken in the order of all 6 semesters.

For the matrix-type of questions it was aimed the scaling accuracy using the Cronbach  $\alpha$  coefficient and the Fisher test (Table no. 2). These questions are from 21-26 and contain compulsory and optional subjects performed on each of the three years of study and in each semester. All coefficient values indicate a higher statistical reliability, the scaling being correct and the values exceeding 700.

**Table no. 2: Statistical reliability**

<b>Question</b>	<b>Cronbach <math>\alpha</math> value</b>	<b>No. of elements</b>
21	.756	7
22	.828	7
23	.874	7
24	.827	7
25	.867	7
26	.837	7

Using the analysis of variance (Analysis of variance - ANOVA) (Table no. 3) it allowed the identification of significant differences within groups only. The values obtained show that there are significant differences between the variables of each of the six questions, so within the groups (according to the Fisher test values, which in all six questions have thresholds of significance .000). Therefore, it can be acknowledged a consistency of responses from the people investigated.

**Table no. 3: Value of the Grand Mean**

<b>Question</b>	<b>Semester</b>	<b>Grand Mean</b>
21	1	4.5481
22	2	4.8134
23	3	4.6501
24	4	4.5904
25	5	4.5408
26	6	4.8324

The general averages of the six matrix questions is above 4.5, which means that the investigated participants consider that the investigated subjects taken during their



Bachelor's degree were important. The general averages for all 6 semesters had an oscillatory evolution, with a similarity trend between the 1st and the 3rd year. Explanations for these results can be found in the disciplines structure of general and specialized culture, on the one hand, and on the other, in the structure of the subject's subordinated to the two departments of the faculty.

Another section of the survey was meant to assess the quality of educational activities, the networking regarding the teachers and the support staff as well as the resources available to students during the preparation for finalization of studies. For this purpose, there have been developed 10 questions and the respondents were asked to assign a score from 1 to 7, where 1 is totally unsatisfied and 7 completely satisfied. The averages, in ascending order, shown in Table no. 4, below, shows a positive position, with only two values close to the middle of the scale, the other ones based around the value number 5. The smaller values refer to the relationship with the auxiliary personnel, where the greatest dissatisfaction is regarding the relation to the faculty secretaries as well as with contacts regarding the labor market. This last aspect can reveal both a reduced collaboration with the business environment, but also a relatively passive attitude from the students, who are accustomed to expect the faculty to solve a number of problems for their entering on the labor market. To note is the fact that the faculty runs more and more partnerships with the business environment. In contrast, there can be found students with the ability to express ideas and interactions with the teachers. The courses and seminars quality, and the curriculum is considered to be at a relatively high standard, improvements for the content are needed and for the teaching methods though.

**Table no. 4: Descriptive statistics of the quality variables**

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Interactivity with the auxiliary personnel	294	1.00	7.00	4.1939	1.87488
Fit with labor market	294	1.00	7.00	4.3061	1.74329
Usefulness of curricula for carrier development	294	1.00	7.00	4.8163	1.35264
University resource	294	2.00	7.00	5.0816	1.27732
Quality of teaching in lectures	294	1.00	7.00	5.2959	1.12868
Usefulness of Bachelor's curricula for a master degree	294	2.00	7.00	5.2959	1.28957
Interactivity with the teachers	294	1.00	7.00	5.3673	1.39027
Quality of teaching in labs/seminar	294	1.00	7.00	5.3776	1.13145
Accessibility of instructors	294	1.00	7.00	5.4694	1.19901
Opportunities for class discussions	294	1.00	7.00	5.5000	1.28193

All of the 10 variables are strongly and directly correlated at a significance level of 1%, indicating a high consistency to the answers, according to the data shown in the Table no. 5, below. Values greater than 0.8 occurred between the quality of teaching in labs/seminar and lectures, between the interactivity with teachers and the quality of the labs/seminars, and between the capacity for the curriculum to be useful for the student’s preparation for master and PhD and her ability to be necessary for their future career.

**Table no. 5: Quality variable correlation coefficient**

Variable	Correlation coefficient									
	1	2	3	4	5	6	7	8	9	10
quality of teaching in lectures	1									
quality of teaching in labs/seminar	<b>.858**</b>	1								
accessibility of instructors	.563**	.601**	1							
interactivity with the auxiliary personnel	.505**	.463**	.601**	1						
interactivity with the teachers	.752**	<b>.805**</b>	.670**	.602**	1					
opportunities for class discussions	.655**	.639**	.574**	.462**	.733**	1				
university resource	.658**	.645**	.519**	.476**	.677**	.582**	1			
fit with labor market	.526**	.517**	.528**	.514**	.489**	.463**	.518**	1		
usefulness curricula for carrier development	.794**	.761**	.510**	.571**	.729**	.626**	.667**	.571**	1	
usefulness of Bachelor’s curricula for a master degree	.756**	.751**	.539**	.429**	.678**	.598**	.632**	.470**	<b>.824**</b>	1

**Conclusions**

The data collected allowed a favorable assessment of satisfaction for the business administration graduates. There are, however, some differences between the importance of some disciplines, which can be improved by a better matching to the content with the real needs of the labor market, and by enhancing the role of each discipline for building a better

profile as a specialist in business administration. Also, strengthening the connections with the business environment can be a solution of growth of the subjects importance. Another direction of improvement has in sight the communication at all levels. If relations students - teachers are properly assessed, problems with the auxiliary staff and, especially, with the faculty secretariat can occur.

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## LEVERAGING BUSINESS RELATIONSHIPS AS SMES INTERNATIONALIZATION DRIVERS

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### Abstract

The current paper is intended to draw on business relationships as drivers of small and medium-sized enterprises (SMEs) internationalization processes. Five major factors of business relationships were assessed in terms of their influence on European metal wholesalers' internationalization, namely: intercultural openness, context exploitation, psychological proximity, credibility and specialized networks. Placing the discussion in the framework of business sustainability, the inferred hypotheses were assessed using partial least squares structural equation modeling. 107 managers in the field took part at the questioned-based survey, sharing their viewpoints on the dynamics of international business relationships. As the findings show, over 55% of the variance in business internationalization was explained by the considered factors.

**Keywords:** business relationships, small and medium-sized enterprises, internationalization, sustainability

**JEL Classification:** M16, L61, O19

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### Introduction

Globalization has substantially altered the unpredictability of customers' demands and, implicitly, has bolstered small and medium-sized enterprises (SMEs) towards gathering new resources and benefits beyond national boundaries. The dynamics of the topical phenomenon has captured the attention of both researchers and practitioners all the more so as sustainable international relationships form the basis of business development and sustainable competitive advantage (Hampton and Rowell, 2013; Vătămănescu, et al., 2014). Independent of the examined variable(s), the analyses are mostly causative and focus on understanding new realities through old theories, a fact which brings about an important research gap. Despite the fact that these changes shed some light on SMEs

internationalization, they do not manage to entirely capture the essence of this process; not all the dimensions are included in the analysis and not all the variables are brought forward (Vătămănescu et al., 2014). Malhotra, Aggarwal and Ulgado (2003) argued that it is counter-productive to concentrate on one-sided factors when international businesses are analyzed and emphasized the need for a new theoretical framework; which should offer a holistic perspective upon the variables, dimensions and challenges that characterize business internationalization.

The need for a more pertinent approach is also highlighted by Hampton and Rowell (2013) who state that previous studies only clarified a shallow range of factors and did not take into account the complexity of the international business environment and the high level of interdependency. The models developed so far are linear and are yet to encapsulate the dynamics and complexity of international business relationships.

That being the case, the present paper intends to propose a novel conceptual and empirical framework for SMEs internationalization by means of business relationships between prospective partners. In this respect, the literature review discusses relevant studies on the topic. Then, the research method is introduced, including hypotheses, sample, and procedure. The results and discussion section addresses the empirical evidence and comparisons with the extant literature. Finally, the conclusions section consists of a summary of the findings, research originality and value and research limitations while also considering future directions.

### **1. Review of the scientific literature**

Globalization has triggered a high demand for a new approach as a wide repertoire of intercultural and international issues are capable of influencing SMEs competitiveness within today's global environment. Intercultural issues have a strong influence on business interactions (Ashforth and Kreiner, 2014), interfering not only in the processes of communication, but also in the marketing strategies and firm's behaviour on the market; among the most powerful influence factors can be included language and the attitude towards mistakes and uncertainty. Even when managers speak the same language or they use the services of a professional translator, it is likely for different meanings to be attributed to words, while different rationales and approaches determine what is formally relevant or not (Vătămănescu, Alexandru and Andrei, 2015). These issues pose a new challenge for managers in that they have to foresee and handle future threats and opportunities and to ensure firm competitiveness in an open-culture environment by adapting to intercultural specificity and by harnessing the potential of business relationships. They have to acknowledge the reality of highly competitive environments where business and, implicitly, social relationships between partners have a pivotal effect.

Managing business relationships requires interpersonal and inter-organizational adjustments which can only be achieved through coherent strategic and, thus, sustainable projects (Stephan and Peters, 2013). This is why sustainable projects imply meeting three major conditions: being committed to long-term internationalization projects, ensuring the necessary resources and sustaining progress continuously (Lee, 2014).

Building on this logic, SMEs managers should consistently invest in developing sustainable relationships with key partners who may set themselves up as critical success factors for the organization in the long run. A first important step in this direction relies on exploiting business contexts when people with mutual interests have the opportunity to personally meet one another. In order to engage in international operations and to develop competitive

and sustainable strategies in new markets, a firm must acquire general and specialized knowledge (Flecher, Harris and Richey, 2013) about the characteristics of the new international context. Managers are prone to exploit the opportunity to attend international meetings (e.g., fairs, exhibitions, workshops) where they will not only acquire specialized knowledge, but will also develop personal relationships in their area of interest. From a cross-cultural perspective, the context of common interests increases the degree of mutual understanding and support (Festing and Maletzky, 2011; Schein, 2009) and facilitates knowledge creation and acquisition during business internationalization (Casillas et al., 2009).

Managers' choice of approaching a certain market should be also tributary to the psychological distance. A progressive psychological venture into close markets would be, in many cases, a wiser choice of doing businesses (Nordman and Tolstoy, 2014; Sandberg, 2014). It is easier to understand partners' or customers' behaviours and market characteristics when business relationships culturally share more similarities than differences. Afterward, the organization may step to the next level and initiate relationships with more psychologically different managers on purpose to achieve sustainable competitive advantage.

Optimal results claim concessions in the stage of relationship building. For example, Schein (2009) sustains that each culture has opinions and biases about others, starting with the premises that their way is always the 'right' way. House and Javidan (cited in Festing and Maletzky, 2011, p.194) posit that there is a practice in intercultural contexts to rely on interpretations and assumptions of the partners' background - presumptions, stereotypes and national values substantially influence managers' behaviour and decisions. Consequently, the acquisition of psychological proximity - based on gradual communication and intercultural learning (Hilmersson, 2014) - is liable to determine the success of SMEs internationalization. Another relevant aspect to be considered is linked to confirming credibility in business relationships as partnerships are developed based on trust and professionalism (Rodriguez and Wilson, 2002). Although apparently business relationships are established mainly on economic exchanges and negotiation, the actual propelling factor is often rooted in social relationships. Hereby, Rodriguez del Bosque, Collado Agudo and San Martin Gutierrez (2005) and Hohenthal, Johanson and Johanson (2014) argue that the development of international businesses is generated by the overall satisfaction brought by both economic and social variables. Getting along during the first business agreement is a sign for keeping the relationship alive and a proof of credibility (Vătămănescu, Alexandru and Andrei, 2015). Then, the unfolding of successive businesses settles new drivers for long-run relationships, a second phase of substantial credibility (Rodriguez and Wilson, 2002; Hampton and Rowell, 2013).

Another landmark of SMEs internationalization success acknowledges the importance of social networks capitalization. Social exchange through international business networks stands for a driving force for the growth strategies of organizations (Child and Hsieh, 2014). Assuming the resources that international business networks provide and acting accordingly entail long-term benefits. Garnering knowledge exchanges within specialized networks reinforces the position of SMEs on the market and sets the parameters for their internationalization success. According to Möhring's (2002) theory of business internationalization, organizations are encouraged to exploit business opportunities through information exchanges in order to consolidate the position on the international markets.

Along with globalization and the advent of new technologies, the dynamics of business networks has been translated to the online space. The phenomenon was timely spotted by Held, McGrew, Goldblatt and Perraton's (1999) who underscored the escalate of the global interconnectivity through multiple and varied channels and connections. These vary from the international institutionalized social relationships and from the cross-border flows of goods, information, individuals and social and cultural practices to the new technological opportunities provided by social media (Glavas and Mathews, 2014). As Bell, et al. (2003, p.341), the relationship between networks and SME internationalization is such that "internationalization is seen as an entrepreneurial process embedded in an institutional and social web which supports the firm in terms of access to information, human capital, finance, and so on". SMEs securing relevant information from their networks should thereby be able to strengthen their competitive position on international markets (Johanson and Vahlne, 2009).

## **2. Research methodology**

In line with the theoretical premises presented above, we have advanced the following hypotheses:

H1: Business relationships based on intercultural openness have a positive influence on SMEs internationalization.

H2: Business relationships based on context exploitation have a positive influence on SMEs internationalization.

H3: Business relationships based on psychological proximity have a positive influence on SMEs internationalization.

H4: Business relationships based on credibility have a positive influence on SMEs internationalization.

H5: Business relationships based on specialized networks have a positive influence on SMEs internationalization.

In order to test these hypotheses, 107 managers from European metal wholesalers SMEs were contacted and accepted to take part online in a survey regarding business internationalization processes (males, 30-60 years old, with technical or business administration degrees, occupying top management positions in SMEs). The survey was conducted online during June 2014. During the same period, another two surveys were conducted on complementary issues. The questionnaire consisted of closed-ended questions. The multi-item constructs were measured on five-point Likert scales which ranged from "not true" (1) to "very true" (5). Questions fell into six main categories, that is: a. intercultural openness; b. context exploitation; c. psychological proximity; d. credibility; e. specialized networks; f. business internationalization. The items for each category relied on prior conceptualizations presented in the literature review section. The endogenous variable of the research model relied on a subjective measure, as assessed by the questioned managers.

## **3. Results and discussion**

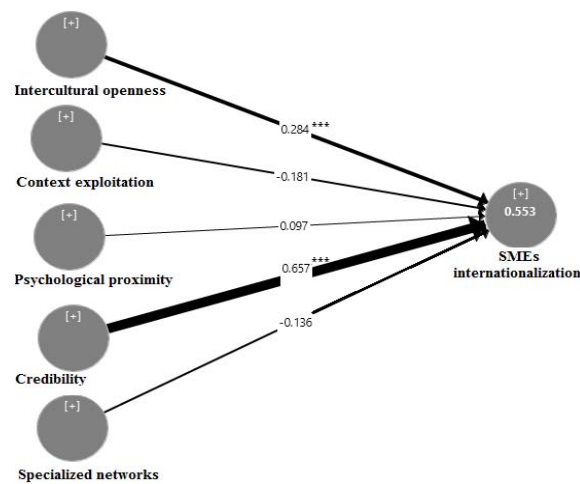
The measurement and structural model were assessed by employing the component-based partial least squares (PLS) tool with the Smart-PLS software package. As Barclay, Higgins and Thompson (1995) suggested, the focus was set on convergent validity (employing factor loadings and cross-loadings of the indicators on their reflective constructs, Average Variance Extracted (AVE) and composite reliability), individual item reliability, composite



reliability, and discriminant validity of the measurement model. Here, the reflective item factor loadings were significant and greater than 0.65 while AVE values were greater than 0.60. The analysis of composite reliability (CR) conformed to the threshold of 0.70 for the reflective constructs as Yi and Davis (2003) indicated. CR values ranged from 0.8 to 0.91 while AVE ranged from 0.67 to 0.84, thus, complying with all required criteria.

The discriminant validity of constructs was examined by comparing the square roots of the AVEs with other correlation scores in the correlation matrix. As none of the construct correlations (non-diagonal entries) exceeded the corresponding square root of AVE (diagonal entries), the model conformed to Fornell and Larcker's (1981) guidelines. The extent of multicollinearity among constructs was evaluated using variance inflation factor (VIF) pursuant to Diamantopoulos and Sigauw (2006). As VIF scores ranged from 1.16 to 2.15 (below the threshold value of 3.3), multicollinearity did not alter the data.

Consequently, the overall measurement items are illustrative of reliability adequacy for further assessing the structural model. PLS structural model results are shown in figure no. 1. Applied to the context of SMEs internationalization in the steel pipe field, the model accounts for 55 percent of variance in business internationalization success (as the R square value indicates).



**Figure no. 1: PLS test of the proposed structural model**

The testing of the inferred relationships in the framework of European metal wholesalers SMEs brought to the fore subjects' viewpoints and practices regarding business internationalization. As the findings show, the most prominent factor influencing business internationalization is credibility ( $\beta = 0.66$ ,  $p < 0.001$ ). The positive and highly significant influence of credibility on business internationalization supports H4, namely: Business relationships based on credibility have a positive influence on SMEs internationalization. This aspect is indicative of the fact that many international partnerships rely on trust and commitment as core values and on mutually beneficial finished operations. Here, the results are consistent with Rodriguez and Wilson's (2002) approach.

Another significant influence on business internationalization is exerted by intercultural openness - approaching SMEs internationalization process as an inherent part of strategic

collaborations and of sustainable intercultural exchanges. The result supports H1, namely: Business relationships based on intercultural openness have a positive influence on SMEs internationalization ( $\beta = 0.28$ ,  $p < 0.001$ ). At this level, the findings are illustrative of the perspectives drawn upon by Hilmersson (2014), Sandberg (2014), Sousa and Novello (2014) and Cannone and Ughetto (2014).

As far as the other three hypotheses are concerned (H2, H3, H5), the PLS test of the proposed structural model showed that they are not significant and, implicitly, not supported in the context of metal wholesalers ( $p > 0.05$ ). We may infer that the questioned managers embrace a global vision on SMEs internationalization process, approaching the worldwide markets whenever the economic and financial outcomes seem profitable, at a reasonable risk level. This would imply that sounding out the proximate markets and arenas is not necessarily a business strategy for the European metal wholesalers. Applied to this specific industrial area, the empirical evidence does not support the general outlook that is posited in the works of Flecher, Harris and Richey (2013) and Nordman and Tolstoy (2015). Next, findings do not validate a significant influence of psychological proximity on SMEs internationalization (H3). Analyzing and filtering out cultural biases and attaching great importance to psychological, social and cultural features are not relevant when assessing business internationalization success. In this respect, we may argue that financial and economic interests are placed above other personal indicators. Again, this situation may be mainly indicative of the specialized field, as prior research insisted on the relevance of context exploitation when approaching foreign markets (Festing and Maletzky, 2011; Hilmersson, 2014).

Another specific situation emerges when examining the role of specialized networks on SMEs internationalization (H5). The results indicate that the presumed influence is not significant in the context of the investigated SMEs, a fact which may imply a self-centric vision when approaching international markets. The findings do not support other researches which lay stress on the relevance of networks – both offline and online - in forming and developing international businesses (Glavas and Mathews, 2014; Rathi, Given and Forcier, 2014).

### **Conclusions**

As the findings pointed out, the factors accounted for 55 percent of variance in business internationalization achievements. Out of the five advanced hypotheses, only two were supported by the empirical evidence, that is, H4. Business relationships based on credibility have a positive influence on SMEs internationalization ( $\beta = 0.66$ ,  $p < 0.001$ ) and H1. Business relationships based on intercultural openness have a positive influence on SMEs internationalization ( $\beta = 0.28$ ,  $p < 0.001$ ). Against this backdrop, the influence of the other factors was non-significant within the conceptual setting of this particular survey. This situation may be indicative of the field specificity, but further investigations should be conducted in this respect.

The paper adds up to the extant literature in the several ways. Firstly, it advances a multilevel perspective on the dynamics of today's business internationalization processes, focusing on business relationships. Secondly, it addresses a specialized sample – European metal wholesalers – which is rarely analyzed in the extant literature. Hereby, in order to conduct the present investigation, the authors benefited from the support of a manager who was agreeable to facilitate the participation of his peers.

As any other research, the present one has limitations as it entirely focused on the social, cultural and psychological components of business relationships, as self-reported by respondents. The financial and technical components are left aside as the purpose of this research is to explore the latent drivers of the internationalization endeavor and not facts and figures related to discrete transactions. This being the case, a future study would benefit from a more integrative approach where other constructs (e.g., costs, benefits, profit, etc.) may be taken into account. Further, the convenience sampling may be extended to include worldwide managers in the studied field or in other types of business sectors.

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## ROMANIAN YOUTH INTENTION FOR STUDYING ABROAD AND RETURNING DILEMMA IN ACTUAL ECONOMIC CONTEXT

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### **Abstract**

The economic development of Romania less than other European country and the difficulties to access a job after the graduation or at least a well paid one, and the appreciation shown for a graduate from abroad greater than from a local one are main factors than determines in the last years an exodus of the young generation.

A secondary effect of this phenomena is the aging of the labor force and side effects as low revenues for state, health and social budgets.

In this paper, we propose to argue the importance of monitoring the phenomenon of migration and specifically youth mobility for studies which increasingly get more classical features of labor migration.

The main objective of the study is to analyses information on individual factors underlying the youth decision to study in another country in terms of concerning, intention and making decision. More, there are personal determinants, in terms of youth perceptions, expectations and needs, that basic underlying the decision of young Romanians to study abroad. Also the subjective determinants are the first ones that advocate the dilemma of returning home after graduating. Presented results are based on the research conducted on a sample of about 500 students from three academic centers Bucharest, Iasi and Timisoara, placed on South, East and West of Romania, so we can consider as a national representation.

Anchoring this finding in actual economic context is mandatory, public decisions makers will better know how to design public policies for undergraduate studies to be linked with the economic environment and for the youth unemployment.

**Keywords:** education, human development, labor mobility, migration, economic development

**JEL Classification:** I30, J61, J68, O34

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## **Introduction**

### ***Youth migration in a globalized world***

Migration is known from ancient times, but nowadays, the phenomenon is actual and complex, due to the global national, regional or global effects that are difficult to estimate at controlled. Current debates on migration aimed to understand the multitude of determinants factors for migratory decision making (Czarnowski, 2013) and the multiple effects of population movements on the involved economies (OECD, 2012). Facilitating the mobility of individuals for studying is one of the main objectives of the Bologna Process. European Union ministers agreed on the objective „20% by 2020 the proportion of students in higher education who completes a training period or training abroad“. Thus, mobility is an integral part of the EU program for education and training (European Union, 2013).

Youth migration for studying abroad is defined by moving young people or students for studying outside their country of birth or citizenship, for a period of 12 months or more. Learning mobility in order to acquire new knowledge, skills and competences, is one of the fundamental ways in which young people strengthens their employability, building a career and foster their personal development, creativity and active citizenship respecting intercultural dimension.

In actual literature there are many theories to describe the complex phenomenon of migration. More, we notice a recently growing effort to explain and understand the phenomenon of expansion of international migration of young people, even if, initially, it was mobility or student migration. For example, Findlay (2010) sees migration as mobility of students' knowledge and the theory of supply and demand explains student mobility as a complex interaction between the financial interests of higher education institutions and personal motivations and economic needs of students and their families. Raghuram (2013) redefines theory and suggests expanding student mobility approaches to analysis spatiality migration and examine how young people become agents of knowledge in configuring poles of academic knowledge, technical, informational. King and Raghuram (2013) and Madge et al. (2014) suggest that the theory of global knowledge allows understanding international students as active actors in establishing new knowledge space.

One of the motive of the youth migration, but not only, to high developed countries is the fact that they achieved a better management of intellectual capital (Lopez-Ruiz & all, 2011). The same study confirms, what we have considered as base idea of our analysis that is a strong link between the education and economic environment as source of economic growth.

### ***Romanian youth migration***

After European integration there were opened new opportunities for young Romanians and their opportunities have changed significantly. At European level, the right to live, work, travel and study in another country is secured and young people are free to choose their educational route. Romanian youth and students are welcome in host countries because they represent a gained human capital because of knowledge, skills, competences that it brings. Thereafter, this capital shall be for the host economy as a highly skilled workforce.

Unfortunately, migration led to labor market imbalance and population mobility. The loss of population due to emigration reaches a very dramatic trend, and worst the migration of young people affect more demographic balance.

Romanian researchers (Zamfir A.M. et col., 2016) studied the aspects of youth mobility for study as first step towards migration for work, showing that the volume of Romanian

students studying abroad is on the rise. Analyzing data for Romanian youth mobility in European context, it was shown that there are several opposite effects of phenomenon of student mobility turning into (permanent) migration. There is a weak boundary between student migration and migration to work. For many young people, the perspective of studying abroad is the first step in their decision toward working and establishing permanent residence in the host country.

The youth migration starts from the determination to study abroad from the beginning considering that the higher education abroad is more appreciated and gives them better skills that will highly be appreciated on the labor market. A second stream of studying abroad comes from students' mobility, which are extended after the first 3 or 6 months and in a substantial degree ends up with a working migration.

The meaning of intellectual capital has different content from the point of different perspectives of employee, employers and society (Grigorescu & Chiper, 2016). Romania is known as a country with "minded and educated" capital so all the time the youth were targeted by "head hunting" and "brain drain" phenomena.

The last years, starting with 2007, the Romania integration in European Union, the migration were significant increase due to the free education and labor force mobility.

### ***Young people would like to study in another country***

Making the decision to migrate involves several steps such as: information, analysis of opportunities, alternatives and consequences, action) on the basis of personal motivations, objectives and priorities. These can be influenced by individual experiences and context - environment and information, and by subjective elements like perceptions, attitudes, motives etc. Just understanding decision-making model and its determinants, we can create a coherent system of intervention to influence or orientation of youth educational route. Anchoring these theoretical preconditions in actual economic context is mandatory. The general objective of our work is to deepen the research of migratory behavioral as result of interaction between cognitive components (i.e. concerning, information), behavioral component (measured by intention to migrate), motivation and decision-making.

### **Methodology**

The main objective of the analysis is to analyze information on individual factors underlying the youth decision to study in another country in terms of concerning, intention and making decision.

In October 2016, we conducted a questionnaire survey asking young people about their future plans to continue their education in Romania or abroad. The investigation was applied to young people and students who was took part at the Romanian International University Fair (RIUF) which is considered the largest educational event in Romania. Sampling design allowed the investigation in three regions of the country, namely South (Bucharest), the West (Timisoara) and East (Iasi). The instrument to collect data is semi structured questionnaire applied face to face, applied to the exit at the fair. This sample was composed of 455 respondents (named students) including 200 students in Bucharest, 125 students in Iasi and 130 students in Timisoara. Respondents provided information about interest for their future educational way and personal reasons underlying the decision to study in a foreign country. However, that most visitors were high school students.

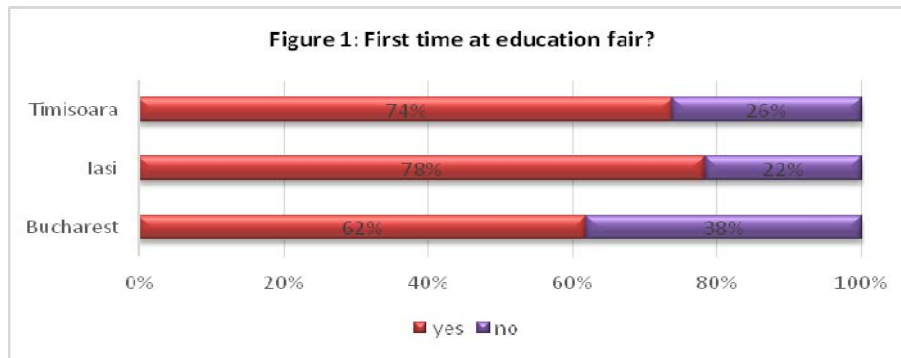


**Data and results interpretation**

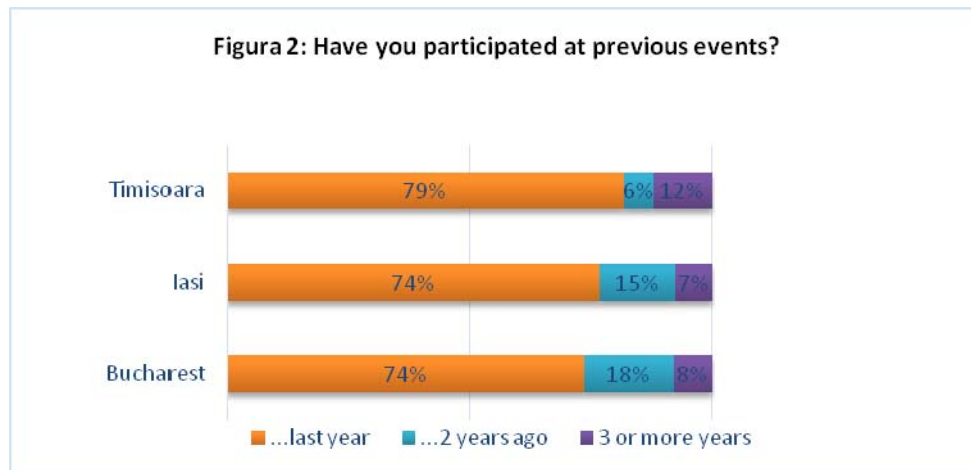
Collected data and information focused on investigating the young people concern of considering studying abroad, intention to leave to study abroad, decision to leave to study abroad and probability to return home after finishing studies. The main results and interpretation will be detailed below.

**a) considering studying abroad as the presence in fairs for educational offers**

Three quarters of respondents have participated in past fairs for educational offers (Figure 1). Most of those who have previously participated in such an event, they did it last year (Figure 2) so recently. The situation is slightly different in the three cities. At RIUF Bucharest, 62% of young people said they have participated in fairs for educational offers. Of those who participated in other events of this kind (38%) most of them (74%) also came last year and only 18% have participated two- three years ago or more.



In Iasi, a comparatively higher number of young people (78%) said they come for the first time at the fair, and from those who already participated, a percentage of 74% did it last year. In Timisoara, 74% of respondents came to this fair for the first time, and a percentage of 79% did it last year.

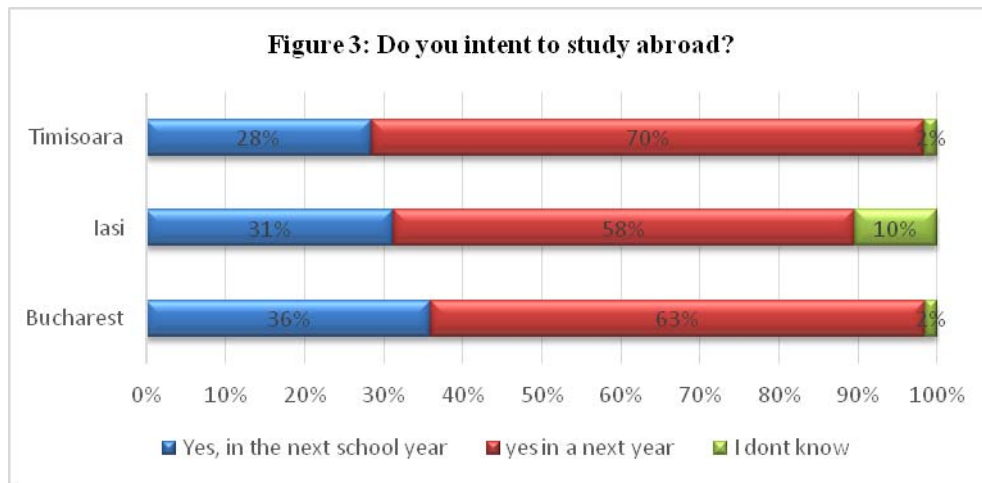


So, during the time the concern of young people for foreign educational offer was not diminishing, as they participated in several fairs. Young people are willing to inform them and gather information before completing the educational guidance.

**b) Intention to study abroad**

One third of young respondents planning to go to study abroad during next school year 2017-2018; rest of them intend to leave in the next. Among the young people who came to RIUF Bucharest, a percent of 36% said they intend to study abroad to next school year. The rest (63%) said they intend to go abroad in a following year (Figure 3). A percent of 31% of people who came to the RIUF Iasi, affirmed want them to go to study abroad next school year. The rest (58%) said they intend to go abroad in the next school year and 10% said they do not know yet. At RIUF Timisoara, a smaller number of people (28%) said they plan to study abroad next school year and compared more persons (70%) said they are considering to go abroad in a next year.

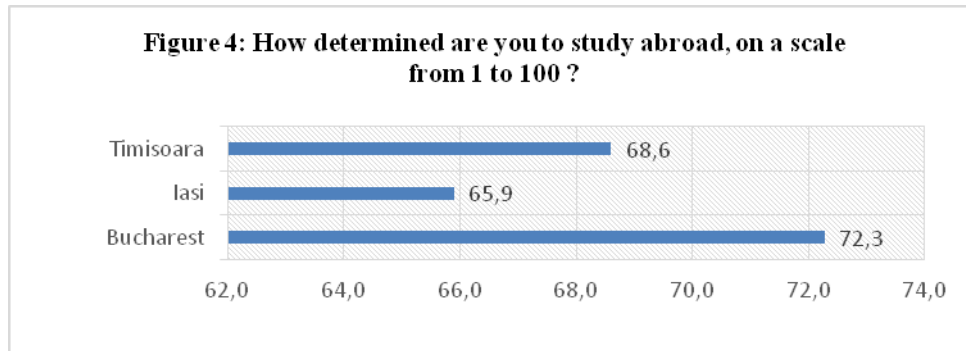
Most often, young people search themselves and inform about the opportunities to study abroad and even if some of them will change their option over time, their concern is remarkable for shaping the intention to study abroad.



**c) The decision to study abroad**

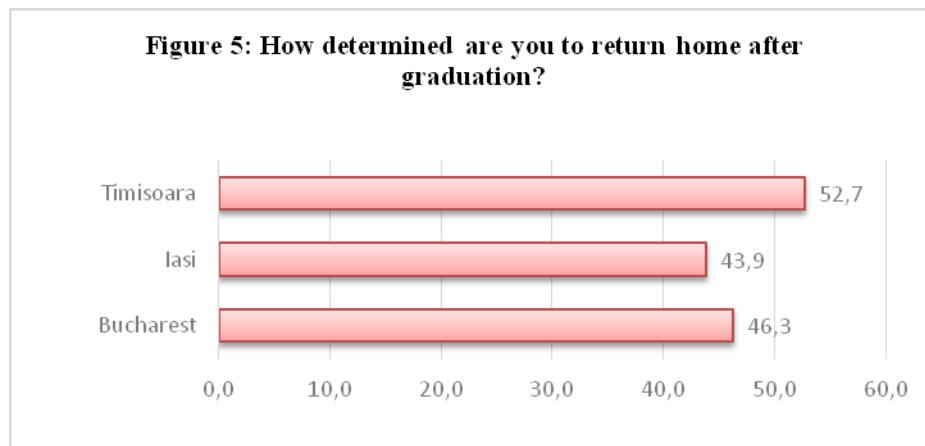
The young people’s decision to study abroad is quite strong and well defined. In Bucharest, young people are significantly committed against people of Timisoara and people from Iasi, because they said that they are determined to go with a proportion of 72.3% compared to 65.9% in Iasi or 68.9% that is the determination of young people in Timisoara (Figure 4).

d) *The decision to return home after graduation*



The decision to return home after graduation is significantly stronger among persons from Timisoara. According to this study, the information is in relation with their family support or influence for remaining home.

Young people from Bucharest would return to the home country after graduation with a rate of 46.3%. Their determination is stronger than people from Iasi who would like to return home in a proportion of 43.9%. Thus people from Timisoara are more determined (about 52.7%) to return home after their studies abroad (Figure 5).



As it could be seen from Figure 4 and 5 the highest rate of the study abroad desire is registered in Bucharest, since the highest rate of return home is highest in Timisoara. More interesting is that the gap between the two studied desires (study abroad and return home to work) shows that it is highest in Bucharest, while in Timisoara is the lowest. At first we can appreciate that this result comes from the geographical position of Timisoara on the west side of the country closer to the other European countries and the economic development of the area higher than the eastern region. But this contrary with the results in Bucharest known as the centrum of the economic development of the country.

The study shows that the desire to study abroad is a first step for youth to decide later that finding jobs in the country they have studied is a confirmation of their skills. But, we have to consider that, part of them are willing to migrate and they are using the study abroad

opportunities, also the students' mobility programs, as first motivation for their families, to start a way to long or permanent migration.

Knowing better the motivation of the youth to study and to work abroad, as the main pillars of the migration phenomena, give us the possibility to design the education program, the employment programs, entrepreneurial facilities etc. an entire system to motivate the youth to consider the return home after finish the study or after a short period of experience.

### **Conclusion**

The decision to migrate is made in successive stages such as: initiation, information, analysis of the alternatives and consequences and the action or implementation.

In general, that young person, who oscillates on the idea of continuing their studies at home or abroad, are willing to inform using several channels for information (media, friends, educational offers etc.). Over time, the youth interest for information and educational events is not diminishing. Young Romanians want to know foreign educational offer and gather information before completing the educational guidance.

The interest in mobility is a precursor for the migration behavior and is measured by intention to go to study abroad. Among the young respondents, almost one third of them plan to study abroad in next school year 2017-2018 and the rest of them intend to leave to study in a school year later. Generally, "If they have a lot of information about the educational offers of different universities they can take a more conscious, aware choice. Broadly Young Romanians decided in a few months (about one third of them) in a year or 2-3 years. Few decide in a long time, more than three years. The decision to go to study abroad is quite strong and well defined and young are willing to take this step.

Behavior about returning after graduation, expressed by the intensity of the declared decision is highly unlikely. In our case, if young people would be in a position to complete their studies abroad, just 40% - 50% would return home after graduating. Young people appreciate the high quality of education abroad and the existence of better job opportunities on foreign labor market. We note that Romanian young people are willing to find a job in foreign country after graduation, considering this a real reason to migrate.

It is obviously that we have to pay attention on several key aspects that should be considered by the public decision makers as national priorities:

- the economic growth is depending by the educated human resources;
- the youth are looking for better socio-economic environment that easily and strongly manage their intellectual capital;
- the education should be positioned in the right place among the European and international education and training suppliers;
- the employers culture and general perception about the abroad education and domestic one has to be changed;
- building mechanisms to better valuation of the youth in terms of employment opportunities, wages, other facilities;
- identifying the main reasons of the mobility transformation in migration and design countermeasures.

If we carefully analyze the decision framework according which young people organize their decisions about their educational and professional, we can anticipate the options and alternatives for achieving the desired results. Future developments of the study will deeper search on the motivation, influence factors and links that are contributing to the youth

decision. A second perspective of the further developments is to find out how it can be weakened the link and change the behavior of the young generation.

At first site it can be considered a normal phenomenon in a global world, but looking into details we have to be honest and to accept that this is a brain drain from our country to more developed one. More than this, the head hunting, the migration after they finish the studies in the origin country, drain not only the youth, the intellectual potential but also the education financial resources.

It could be seen that are multiple reasons for us to study this phenomenon in his depth and to build a strong and wise system with integrated public policies to maintain our human and intellectual capital and to support a robust socio-economic development.

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## **STUDY ON FACTORS AFFECTING THE PERFORMANCE OF SMEs WITHIN THE CONTEXT OF A SUSTAINABLE BUSINESS**

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### **Abstract**

The objective of this article is to find main elements which affect the performance of small and medium enterprises.

The methodology considered by the authors of this article refers to the performance of an empirical research within 20 small and medium Romanian companies considering 2014-2016 period of time, based on information made available by the representatives of such organizations.

A series of elements having a negative impact on the performance degree of such companies have been identified, within the aforesaid reference period of time, following the said study.

Moreover, the study identified the inexistence of some prevention actions regarding the issuance or elimination of such elements, the effects of such an approach being the change of a performing company into a non-performing economic organization.

**Keywords:** corporate sustainability, performance, investment strategy, opportunity, strategic decision

**JEL Classification:** M10

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### **Introduction**

It is an overall accepted approach that SMEs are well-known for their role in social, political and economic development of the society. Their significant importance is especially pointed out by the capacity to supply, at a reasonable price, goods and services, income and considering the labor market (Lawrey, 2009). As a consequence, it a significant concern to improve the performance of such companies, beginning with finding elements which determine the mitigation of the performance degree till taking some actions meant to ensure the sustainable development of such companies.

So, the executives have to see the need to assume an increased responsibility by adopting more sophisticated actions for reporting and ensuring the performance of the companies, in order to implement coherent actions to develop sustainable businesses.

Therefore, due to the lack of such mechanisms, organizations face, in many cases, crisis situations which affect their long-term activity.

### **Theoretical aspects**

In view of developing the research, aspects of theoretical nature on SMEs performance and sustainable business concept have been reviewed, the authors of the article being able to identify one of the model on making the ranking of core elements affecting the performance of a company.

The SMEs performance promotes the economic environment and could be assessed by way of reporting to the achievement of objectives being initially set. Some authors consider the performance of an organization could be assessed by taking into account the degree of the manager's satisfaction in terms of profit, turnover and business development (Alasadi and Abdelrahim, 2007). Most of the opinions stated on the concept of a company's performance show this could be assessed considering a) quantitative indexes, such as: financial outcome, production, efficiency or b) indexes of qualitative nature: leadership, individual behavior, achievement of objectives, organization performance etc. (Tattichi et al., 2008).

Sustainability is a tremendous significant element in assessing the performance of a company. According to the studies in this domain, a sustainable business supposes to consider financial, social and environmental aspects when a company's manager takes a decision. Considering studies at global level, a conclusion could be reached, namely any sustainable business: a) considers the long-term financial value; b) is aware of the impact on the environment and acts to mitigate it; c) grants a special attention to its employees, clients and community and acts towards a positive social impact. Sustainable businesses take into consideration a long-term development strategy. Leadership, organization culture and change management are among the elements having a key role in the sustainable development of a company (Paraschiv, et al., 2012).

Determinative elements of the performance of a company have been subject to countless researches, some authors considering such elements could be ranked in non-financial and financial elements. Čerović, et al. (2015) reviewed the companies' performance connected to the structure of the ownership of such companies, especially in the context of transition economies where such a relation could be extremely strong. Other studies took into consideration criteria such as the size of the organization, green performance (Siminica, et al., 2015) or the company's field of activity.

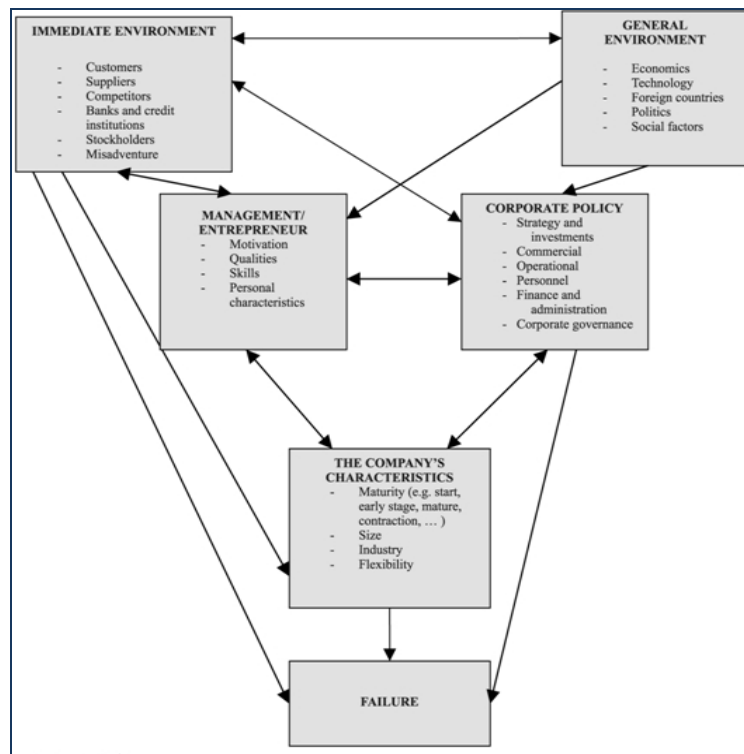
Also, the management policy has been considered as the key elements which contribute to the non-performance of a company, results showing serious managerial errors in case of company with a low performance degree.

Considering both categories of financial and non-financial elements Ooghe and Waeyaert (2008) proposed a conceptual model (Fig. no.1) in which they identified five categories of reasons that could lead to the failure of a company. In the said authors' opinion, reasons could be classified as follows:

- **General environment** refers to different factors of economic, political, social and technological kind or to aspects involving the behavior of political and banking systems;



- **Immediate environment** involves relation with stakeholders: clients, suppliers, competing companies, credit companies or shareholders;
- **Management** include motivation, skills, capabilities and other personal characteristics of managers. Usually, personal features are considered as the critical factor in a company's failure;
- **Corporate policy** refers to the adopted strategies considering various activities within the company, such as investments, marketing policy, sales or administrative, financial or human resources issues;
- **Corporate characteristics** include size, maturity or industry it belongs.



**Figure No. 1: Model of possible causes that determine a company bankruptcy**

*Source: Ooghe și Waeyaert, 2008*

In view of ensuring a sustainable development of a business, we need to identify factors which affect the company's performance. The SMEs long-term performance could be ensure only by implementing actions able to lead to the elimination or improvement of such factors.

### Methodology of research

Authors of the article performed an empirical research within 20 small and medium Romanian companies operating in various domains: raw materials production and distribution, industry, trade and constructions.

The study has been developed connected to factors which affect the performance of such companies during 2014-2016, based on information made available by the companies' representatives.

In such context, for each company, authors of the article took into consideration information on:

- Fixed assets: lands, constructions, technical installation, equipment, transportation means etc. ;
- Current assets: inventories, clients, bank accounts etc. ;
- Short-term debts: credits, suppliers, salaries and social contributions, loans from shareholders;
- Long-term debts: credits, leasing, guarantees;
- Profit and loss account: evolution, operation outcome (turnover, operating costs, profit-loss).

Considering the ranking of factors which could affect a company's performance, authors of the article identified a series of factors which constantly affect the sustainable development of such companies (Tab. no. 1), no improvement or elimination actions of such factors being identified by the study.

In this context, it remains a series of questions with no answers for Romanian SMEs regarding lack of actions in the management strategy able to ensure them a long-term competitiveness and sustainable development.

**Table no 1: Classification of factors affecting SMEs performance**

No. Crt.	Classification of factors that affecting SME performance	Factors affecting SMEs performance	Mesures to improve/eliminate factors
1.	<b>General Environment</b>	<ul style="list-style-type: none"> <li>▪ Crisis management in the specific activity field;</li> <li>▪ The risks resulting from contractual relations with public authorities;</li> <li>▪ Political crisis effects ;</li> </ul>	<b>None</b>
2.	<b>Immediat Environment</b>	<ul style="list-style-type: none"> <li>▪ The enterprise difficulty to obtain bank financing;</li> <li>▪ Setting prices inconsistent with market trends;</li> <li>▪ Unrealistic prediction of markets;</li> </ul>	<b>None</b>
3.	<b>Management</b>	<ul style="list-style-type: none"> <li>▪ The relations of conflict between management and employees;</li> <li>▪ Lack of investment in human resources development;</li> </ul>	<b>None</b>
4.	<b>Corporate Policy</b>	<ul style="list-style-type: none"> <li>▪ Corporate and investment policy insufficiently substantiated;</li> <li>▪ Lack of vision for the long term development;</li> <li>▪ Lack of pricing strategies uncorrelated with characteristic market trends;</li> </ul>	<b>None</b>
5.	<b>The company's characteristics</b>	<ul style="list-style-type: none"> <li>▪ The relationship with the activity of other distressed companies;</li> <li>▪ Oversized personnel structure.</li> </ul>	<b>None</b>

*Source:authors*

**Results**

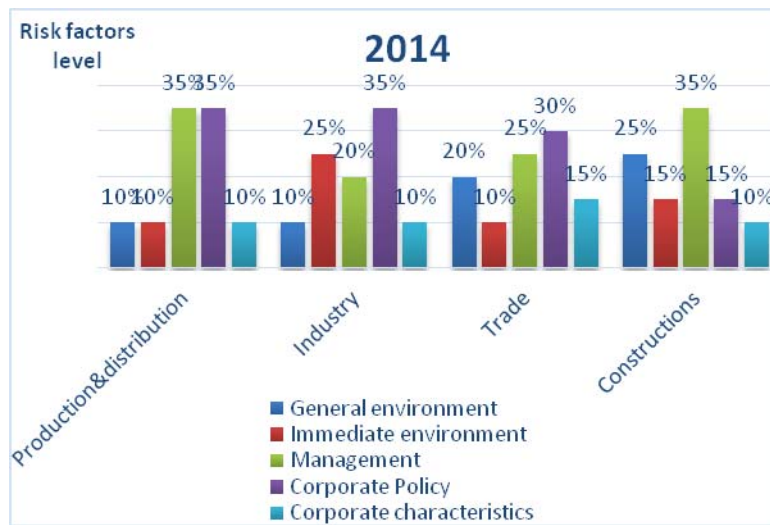
In the achieved study, authors took into consideration the trend of financial and non-financial indexes of each company during the reference period of time, the study outcome showing some factors affecting the performance of the respective company.

The article underlines the impact of such factors over the company’s performance in a certain field of activity within various periods of time.

Considering the research on economic indexes of each company during 2014-2016, the deficient management and corporate policy represents two of critical factors affecting the sustainable development of an organization.

Thus, at the level of 2014 year, companies’ performance has been affected by both implemented corporate policy (decisions on commercial strategy or low-grounded investments) – 45% and also management features – 30 %, followed by immediate environment factors – 30%. (Fig. no. 2).

For each aforesaid factor, no actions to improve or eliminate them were identified, in view of developing the activity in terms of economic, social and environmental elements.



**Figure No. 2: The result of the risk factors on the performance of SMEs, 2014**

*Source: authors*

The study showed the companies’ performance, at the level of 2015 year, was affected firstly by the management features motivation, personal capabilities etc.) in 40%, followed by factors of immediate environment – 30% and corporate policy – 30% (Fig. no. 3).

Reviewing various periods of time, no action has been identified, at the companies’ level, regarding the management strategy or performance indexes, sustainable development being further on one of the challenging approach for business environment.

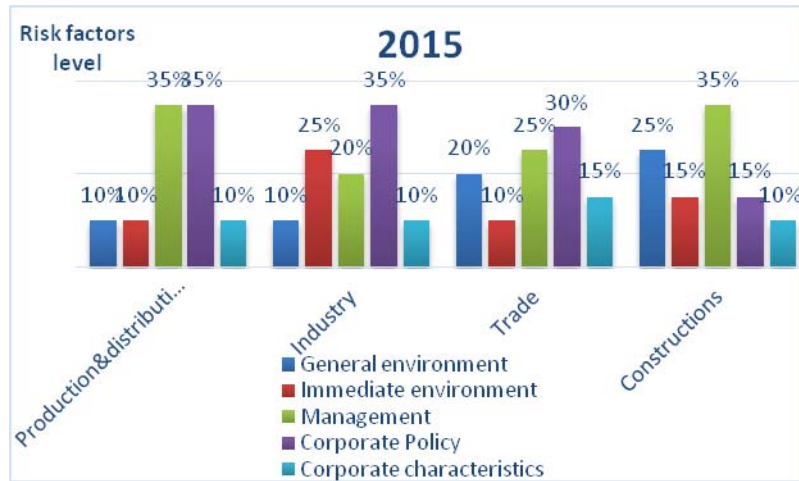


Figure No. 3: The result of the risk factors on the performance of SMEs, 2015

Source: authors

In 2016, the research outcome shows that corporate policy - 35 % and management features – 35% are still two of the most critical elements affecting the performance of a company, followed by elements of immediate or general environment – 25% (Fig. no. 4). Overall, in spite of the improvement of economic conditions, at companies’ level, not even in this year have been identified long-term actions able to suppose the elimination of elements of risk which could impact on companies’ performance.

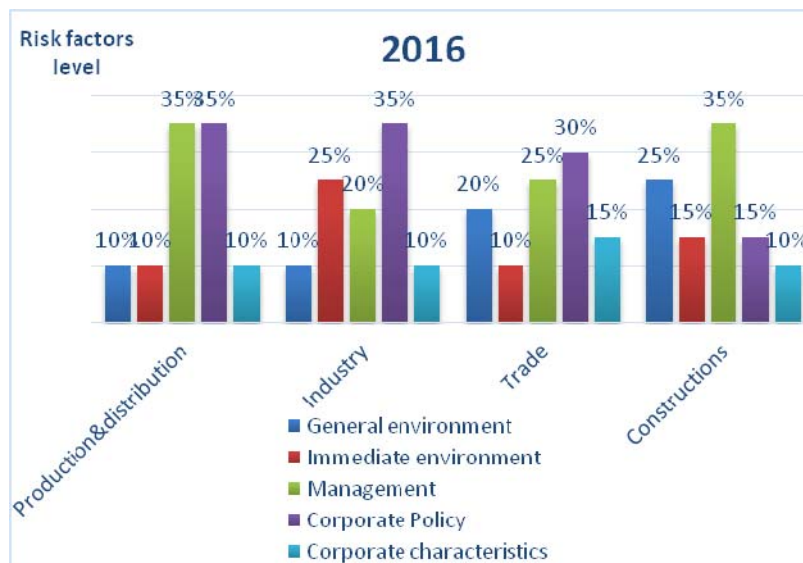


Figure No. 4: The result of the risk factors on the performance of SMEs, 2016

Source: authors

## Conclusions

Following the research, the management features and corporate policy were identified as core critical elements affecting the performance of a company.

The study also underlines the low importance granted to actions meant to improve or eliminate such elements, from a period of time to another, effects of such an approach leading a performing company to a non-performing one.

Considering sustainable businesses aim a long-term strategy, authors of the study did not identify any action, at those 20 companies level, able to mirror a long-term financial value, mitigation of activity impact on environmental elements or actions meant to show attention granted to employees, clients or community, but only an opposite trend.

A constant assessment of a company's performance could represent a significant impact on keeping the company viable within the economic environmental. Improvement of performance by taking actions able to ensure the business sustainability has to represent a key objective of any management strategy, study pointing out the effects of certain elements over a business activity. Any management strategy which does not involve such actions is subject to a failure.

The study creates the bases of a future research on finding mechanisms by which small and medium enterprises of Romanian could eliminate elements affecting their performance, in view of the sustainable development of a business.

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## IMPROVING EFFICIENCY BY IMPLEMENTING HR SHARED SERVICES

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### Abstract

The main task of this article represents different strategic approaches and illustrates the benefits of HR Shared Service Center implementation. The fundament of this paper is the literature on the subject "optimization". Furthermore, in the empirical part of this article, it will be analyzed how HR developed during the last decade and exposes the model of a HR Shared Service Center.

The aim of this work is to make a statement on how successful a HR Shared Service Center implementation can be for increasing the efficiency of the company.

**Keywords:** Efficiency, optimization, HR shared service center, technology, organizational change.

**JEL Classification:** L10

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### Introduction

In the last decade, a wave of unexpected challenges has been unleashed by the global economic uncertainty. The organizations are forced to increase their performance and underutilizing their own capacities becomes their biggest enemy. Considering all those changes, organizations today tend to implement a completely new way of working and develop a change management which insures maximization of existing capacities. This is a great promise, which can be fulfilled only by identifying and synergizing the dispersed capacities within the company.

Improving efficiency is about optimization and this can be insured only starting with a re-design of the strategy, technology up-gradation, a realistic manpower planning, clear definition of roles, strong performance management with cascading goals, employee's skills development, transparent communication within all functions and departments and leadership. When analyzing all the above elements, workforce optimization can be considered the key element in order to succeed on the market and overtake competition. In simple words this means hiring the right employee, at the right time, on the right function and at the right costs.

During time, organizations developed continuously new business models trying to find the most efficient one. The main goal was to implement a model which insures interaction and

transparent communication between all structures, good workforce planning, clear designed process and technology implementation. Strategic outsourcing was a temporary solution, which demonstrated that it is not the most efficient, as it involved a high resource utilization and represented a barrier in maximizing capacities. Creating Shared Service Centers, which bundle competencies within the company and provide a large portfolio of standard services for all divisions is the decision of more and more entities. This model provides the unique opportunity to develop expertise in various domains, but also to leverage economies of scales. The work functions which are usually transferred to a Shared Service Center are IT, finance, human resources, procurement, etc.

This paper presents the implications, opportunities and future approach of creating a HR Shared Service Center within an organization.

### **What is a HR Service Center?**

Shared Services represent a collaborative model in which a various category of existing business functions are converted into a new, more authorized business unit that has a strategy designed to promote efficiency, generate value, save costs and provide services for internal customers at a high business level (Bryan Bergeron, 2003).

The main objectives organizations try to achieve via implementation of Shared Services are: cost reduction (by standardization, global processes and accumulating internal processes in one unit, the parent company can concentrate on the strategic part of the business, creation of know how process, expectations are clearly defined by the Service Level Agreements (SLA).

The implementation of Shared Services changes the back office functions, such as finance, IT, procurement, controlling, human resources etc. to a strategic driver (Bondarouk, 2014).

A HR Shared Service Center can also be defined as a separate entity of the parent company, having as main task to deliver specialized HR services to customers, which in this case are represented by company's business units and divisions, based on a Service Level Agreement (SLA) against a certain price (Strikwerda, 2010).

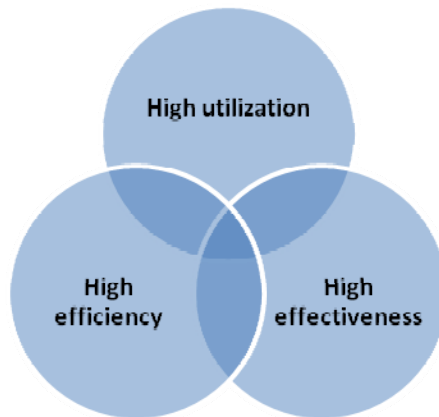
When summarizing the above definitions, we can conclude that a HR Shared Service Center is a business model created to enable resources, increase efficiency at lower costs with an agreed customer- service level. Most companies choose to create a separate business unit within the organization, which has as main goal delivering various services agreed in a service portfolio to the operating business units of the parent company.

### **Why to implement a HR Service Center?**

During the years, the HR Shared Service Centers have proven their value and benefits. Unfortunately, many companies do not explore this concept at its real potential. According a survey leaded by ACCA- Pwc (2012), 28% of respondents implemented shared services or outsourced their activity. This percentage increased up to 45% for smaller organizations (annual revenue lower than \$100m). This shows us that this model still presents important opportunities and is a real solution in order to improve performance.

In order for a company to create capabilities, all of the resources have to be utilized at multiple levels. Optimization is about using and ensuring effective and efficient all the existing resources at their maximum capacity. Organizations adopting this approach obtain more benefits than just cost savings. Due to optimization, companies ensure value creation, develop competences, increase quality level of services, built a stronger infrastructure and most important- they improve their business results (Belligham, Campanello, 2004).





**Figure no. 1: Components of optimization**

*Source: Subhash Khare, Optimizing the Organisation, , Tata Mc-graw Hill Publishing Company Limited (2006)*

It is a really exciting and interesting time to be in HR Shared Service area. If we analyze the market we can notice that many companies with existing service centers extend their scope and services portfolio, while others are starting to implement this new model in their organizations.

The key element in order to have a productive and efficient HR Shared Service Center is the proposition of values. HR and business leads need to clearly define from the beginning what are their goals which need to be achieved when they decide to implement this model. Of course, costs reduction remains one of the most considered elements, but it is important to create an overall picture and realize that there are other very important goals. Those goals and the strategy used for achieving them need to be clearly defined, correlated and considered as a whole.

There are three main reasons for which companies choose create a HR Shared Service: cost reduction, quality reason, organization reason.

Another important factor which has to be considered is technology. It is important not to underestimate the impact of technology, which leads to the development of a shared service center. If we look back a few years ago, we would easily conclude that some shared services models were impossible to implement considering the level of technology. Technology is crucial for a HR Shared Service Center. In order to work efficient and achieve the expected service level, technology needs to be implemented overall, it needs to be adapted to the provided services and most important it needs to be continuous up-graded.

In many companies, the increasing use of technology and various systems within a HR Shared Service Center led to a new function of “HR technology” which supports the HR specialists to be up to date with technology and with the upgrades of the systems, to resolve errors quickly and to improve the quality of the provided services. For a HR Shared Service Center, the relationship between IT and HR function is a key element to insure a high service level and as those two domains are very different.

The main Shared Service Center channels for cutting costs are represented by (Reilly, Tamkin, 1997): cutting employee number by redundancy, reducing accommodation charges, increasing efficiency.

Saving on manpower and reducing accommodation charges are doable by grouping more administrative service activities into one place. Also, implementation of performing systems leads to redundancy due to the fact that the efficiency of one employee increases with the support of the tools he is working with, but also because of the increased self service, which before was done by many other departments. Once with the number decrease of manpower, organizations reduce costs also by cutting rooms space. Many companies choose to create a regional or global HR shared service center, having a single location in a place with lower costs (Gollenia, 2016).

However, it is really interesting to notice that the shared service center model is no longer implemented because of the cost reduction. In time, the shared services organization's focus was not only saving costs, but also increase efficiency, increase quality of provided services, provide end-to-end services which are in alignment with the company's strategy (Reilly, Williams, 2003).

A quite different reason for implementing the HR Shared Service Center model is represented by the quality improvement of HR services. Once a Shared Service is created, the parent company becomes the most important client and the main goal is defined by customer satisfaction. In the most HR Shared Services the service level is high and it ensures a more professional way of work, consistency and accuracy, a better use of processes to complete work, deliver work on time and budget.

#### **The Advantages and Disadvantages of HR Shared Services**

The decision to implement a HR Shared Service can be an excellent way to reduce costs, improve service quality and allow management to concentrate more on the strategic part and not lose time with administrative and support functions. Below are listed only a few of the most important advantages the implementation of a HR Shared Service Center can bring (Beaman, 2007):

- Lower costs (generated by redundancy and accommodation);
- More efficient resourcing;
- Higher quality of service (non-compliance);
- Higher customer satisfaction;
- Having a single point of contact encourages customers to access HR function;
- Integrated solutions are provided;
- Transparency on costs;
- Better project management;
- Opportunities of job rotation for staff;
- Better management of information;
- Facilitating corporate investment (Technology, infrastructure, communications).

Implementation of a HR Shared Service is not necessary a solution for any company. Depending on the industry, company strategy but also on employee profile, there were cases when creating a Shared Service brought to an increase of costs, additional complexity and internal processes became slower. Each company has to analyze in details the consequences of this decision, as it has also risks and disadvantages as following (Withers, Williamson, Reddington, 2010):

- Narrow the range of tasks;
- Taking too much of the business;
- Difficulties in career development of staff;
- Processes can become to segmented;
- Communication difficulties;
- Lack of local knowledge;
- Project organization becomes more difficult;
- Lack of local processes (global processes are not always applicable to specific areas);
- Insufficient attention to content;
- Loss of face to face contact;
- Large capital investment (especially in technology).

### **The future of HR Shared Services**

Considering the fact that organizations are getting more and more into self-service, the roles are suffering changes. Tier zero includes the self service activities and Tier one is the first level support of a HR Shared Service for its customers. The responsibilities of Tier 1 staff tend to be less about transactions, concentrating more on providing guidance, coaching and ensuring that managers and customers have all the information they need in order to do the job on their own. It is clearly visible that there is a deviation from the traditional transactional activity and more focus on continuous improvement. Once tier one role will change completely and the number of calls will decrease significantly, the role of this team will change, moving to a more general one (Losey, Meisinger, Ulrich, 2007).

In order for a HR Shared Service Center to work efficient, a “refresh” of the process has to be done on regular basis (Ulrich, Brockbank, Younger, M. Ulrich, 2012).

During the years, the profile of the HR Shared Service employee is changing. Traditionally, those companies employed staff with HR background. However, now are can observe a that organizations hire people with customer service skills and then train them on the HR specific role (Rothwell, Prescott, Taylor, 2008).

The development of the HR Shared Services depends mostly on the technological evolution. We can expect to use intranets which are more sophisticated, systems which cover a larger portfolio of services and business is going to be done more and more via phone, call centers and help lines. Line managers will be given more and more on line access to their employees’ profiles and records and they will be able to take action for them via the system, without waiting for the support of the administrative HR function. Tools, systems and procedures are now simple, so that the information is easy to find and everyone can complete their task by hand (Gueutal, Stone, 2015).

As demography shifts, the acceptance of the self-service model becomes more familiar and normal. Today’s generations have grown up with technology and are used to access information from everywhere. There is a strong push on the market to shared services portals and mobile applications.

### **Conclusions**

Thus organizations are facing the new age of economic instability, competing by capability and efficiency may become the new name of the challenge. Companies are forced to increase their performance and underutilizing their own capacities becomes their biggest enemy. Considering all those changes, organizations today tend to implement a completely new way of working and develop a change management which insures maximization of

existing capacities. This is a great promise, which can be fulfilled only by identifying, synergizing the dispersed capacities within the company.

There may exist many optimization ways for the organizational framework, workforce and technology. This can be insured only starting with a re-design of the strategy, technology up-gradation, a realistic manpower planning, clear definition of roles, strong performance management with cascading goals, employee's skills development, transparent communication within all functions and departments and leadership.

The most common implemented delivery models are shared services model, outsourcing model, self- service model or a hybrid model. However, the implementation of the shared services model is the key to gain efficiencies, continuous improvement, more efficient and standardized processes with much of the activity automated through technology.

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## APPLIED COGNITIVE COMPUTING: ENHANCING BUSINESS PROCESSES WITH COGNITIVE COMPONENTS TO BETTER MANAGE COMPLEXITY

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### Abstract

As businesses evolve and depart from their initial business model, decision-makers start focusing more on optimizing resource utilization to improve the results obtained from the underlying business processes that support their operations. Moreover, when integrating innovative technologies as part of the supporting IT architecture, business process architects are often faced with a challenge when it comes to analyzing the integration costs and benefits associated with these implementations. In our paper, we introduce the Contextual Blocks Framework as an approach to designing and analyzing the performance of IT business processes. Furthermore, we propose an enhanced version of the Contextual Blocks Framework through the implementation of a cognitive computing gateway to improve the interaction between decision-makers and business processes.

**Keywords:** cognitive computing, business process innovation, business process optimization

**JEL Classification:** O31, O32, M15

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### Introduction

Data is at the core of any informed decision, whether at the management or individual contributor level. Throughout its lifetime, a business will undergo multiple transformations and gradually increase its maturity level. The more a business departs from its initial startup context, the more it will focus on restructuring and redefining its business processes to accommodate business model iterations and external pressures. Moreover, decision-makers will increasingly allocate more resources towards innovating the business model and restructuring the underlying technological infrastructure to accommodate these iterations. Furthermore, the activity of a company also tends to evolve throughout this process, as businesses start optimizing resource utilization and try maximizing the performance of business process components (Bullinger *et al.*, 2016). Business Intelligence (BI) can be leveraged to collect performance data and monitor the evolution of business processes. By defining a series of performance variables for a business process, companies can quantify the efficiency of each individual component, as well as identify interaction patterns. The implementation of such a framework can be used as a decision support system that provides

involved entities with a mechanism to make data-driven, informed decisions. Moreover, as business processes and practices mature, BI solutions and methodologies need to efficiently scale to provide insights on big volumes of data. Considering the speed of data volume increase, BI solutions evolved to better serve larger scopes of analytics. Business Analytics aim to expand the area of BI and further improve the performance of analytical components (Mwilu, Comyn-Wattiau & Prat, 2016). Even though there is a significant cost associated with the implementation of business analytics solutions (Kitsios & Kamariotou, 2016), they are gradually becoming a vital component of the decision-making process.

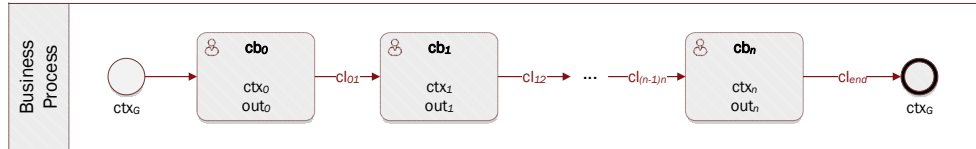
### 1. Business Process Analytics

Traditionally, BI and analytics solutions had been deployed on-premises. Thus, apart from the knowledge and skill development cost, an implementation also required a significant financial effort. However, with the advent of Information Technology (IT) and Information Systems (IS), businesses started exploring recent solutions to identify more efficient implementation and deployment mechanisms (Mwilu, Comyn-Wattiau & Prat, 2016). To maintain their competitive advantage, companies should closely monitor and invest in IT innovation to identify better solutions to existing implementations of business models and underlying processes. Apart from adopting innovative technologies, decision-makers should model strategic objectives and build them upon the capabilities encompassed by the supporting IT and IS infrastructure. Thus, prior to selecting the appropriate technological resources required by a business model, organizations should invest in researching the complexity of their core business processes and identify any existing or potential performance gaps. Decision-makers should select the IT&S infrastructure solution that supports their strategic objectives and allows the scaling of business processes through subsequent business model iterations (Kitsios & Kamariotou, 2016). Due to its potential, cloud computing distinguished itself from traditional implementation models by eliminating the infrastructure layer from the pool of components that were previously managed by the same organizations that benefitted from the solution. Cloud computing allows companies to focus only on the actual business analytics solution and its features, as the underlying infrastructure is managed by the cloud provider. One of the main concerns regarding this approach is that of information security. Thus, some organizations might decide to opt for a traditional on-premises implementation to mitigate this risk. However, a hybrid implementation model, where the core business data is managed locally by the organization and the 3<sup>rd</sup> party business analytics cloud infrastructure is used only for processing data through a secure pipeline. This approach satisfies the security concern, but it often has a higher implementation cost associated with it (Singh, Jeong & Park, 2016). Depending on the level of maturity of a business, multiple approaches are available when analyzing potential business analytics implementation frameworks. Regardless of the approach used by an organization to implement a business analytics solution, it is recommended to first design and map their business process collection to the underlying IT infrastructure. To address this need, we propose the *Contextual Block Framework* for designing, analyzing and integrating the IT business processes of an organization.

### 2. Business Process Architecture - The Contextual Blocks Framework

To analyze and quantify the complexity of core IT business processes, we introduce the Contextual Blocks Framework for designing and analyzing business processes. The proposed framework allows business process architects to identify performance gaps during

the design phase, as well as after the business process implementation. Apart from the business process structure and performance, our framework also allows the analysis of interaction patterns and inter-process dependencies across an organization’s business process collection. In the Contextual Blocks Framework, individual business process fragments are considered *contextual blocks* that spawn their own isolated context, and the transitions between contextual blocks are envisioned as *context links* that can impact the output of an individual block and shape the evolution of the business process. Figure no. 1 depicts a business process architecture designed using the Contextual Blocks Framework.



**Figure no. 1: Business Process Architecture Illustrated Using the Contextual Blocks Framework**

Prior to providing any input for the business process, a global context object ( $ctx_G$ ) is defined as part of the business process architecture, which is used to track the execution state. It is a dynamic object that not only updates the latest state of the process, but also keeps track of all intermediary results to be able to analyze the performance of each contextual block and provide information regarding interaction patterns at the end of a business process execution. The core component of each contextual block ( $cb_n$ ) is the isolated local scope ( $ctx_n$ ) that is responsible for building the state of the business logic implemented as part of that component and pass it as a parameter for the next block through a context link ( $cl_{(n-1)n}$ ). The notation used to illustrate context links contains two integers: the first one ( $n-1$ ) represents the source contextual block and the second one ( $n$ ) refers to the target contextual block that will use the context link as a parameter to implement its business logic. Apart from the execution state, the output of a contextual block ( $out_n$ ) is also passed on through the context link. To signal that the business process execution completed, the *end contextual link* ( $cl_{end}$ ) is mapped to the global context object. Thus, the performance and complexity of a business process can be analyzed by looking at individual contextual blocks, segments of multiple blocks or the entire execution sequence. Figure no. 2 presents the structure of a global context object at the end of a business process execution.

```

ctxG = {
  cblocks: {
    cb0: {cb0 business Logic attributes},
    ...
    cbn: {cbn business Logic attributes}
  },
  clinks: {
    cl01: {cl01 contextual attributes},
    ...
    clen: {clend contextual attributes}
  },
  // additional business process attributes
  // and parameter values which are
  // part of the global context object
}
  
```

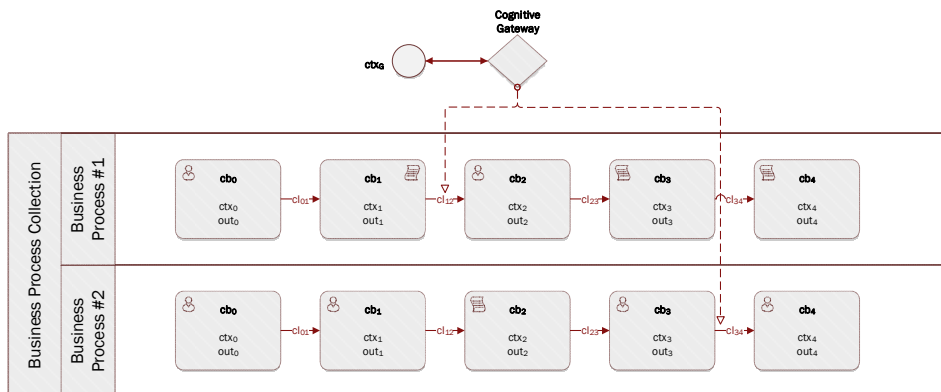
**Figure no. 2: Global Context Object Structure for a Business Process Execution**



Due to its structure, the global context object can be used to store the statistics of each business process execution in a database to provide decision-makers with a mechanism that allows them to modify the characteristics of contextual blocks of past executions to run simulations on actual data to identify performance bottlenecks and optimize interaction patterns. Even though the Contextual Blocks Framework provides flexibility in terms of business process complexity management and analysis, it still requires decision-makers to familiarize themselves with the specifics of the process they are triggering. Therefore, for business processes to produce the results that satisfy the inquiries of decision-makers, the latter need to gain the knowledge required to interact with the process and go through each subsequent step of an execution path. To better match the user interaction patterns to business process executions, we enhance the Contextual Blocks Framework with cognitive computing components that aim to reduce the knowledge and skills development costs associated with understanding and leveraging a business process.

### 3. Cognitive Enhancement of Business Process Architectures

Cognitive computing is an emerging paradigm that builds upon the advancement in understanding cognition as a component of cognitive science and translating it into computational intelligence that can be replicated using IT infrastructure resources. One of the main characteristics of cognitive computing elements is that they are usually deployed as standalone computational modules that are often configured to act as a natural interface that aims to improve the interaction between users and business processes. Moreover, by integrating them with an organization’s business process collection, operations can be automatized and improved as the analysis of the increasing volume of performance data can provide new perspectives into the evolution of business processes (Orii *et al.*, 2016). Thus, by actively monitoring the execution of business processes and the relations between the underlying components, cognitive computing modules optimize the execution paths to maximize the business process results. Moreover, through cognitive engineering (Konar & Jain, 2005), business process architects can model IT integration layers that encompass learning components and provide complexity management through automation (Ciftcioglu & Bittermann, 2015). To optimize the performance of business processes, we introduce an enhanced version of the Contextual Blocks Framework that enriches the standard version of the framework through the addition of a cognitive computing layer (Figure no. 3).



**Figure no. 3: Cognitive Enhancement of the Contextual Blocks Framework for Business Process Optimization**

The purpose of the cognitive module is to optimize the interaction patterns by dynamically building the global context object ( $ctx_G$ ) and determine the best execution path for the provided input parameters. Thus, the cognitive computing component serves as a routing gateway that oversees the collection of IT business processes and, through continuous learning iterations, it maps the intent of business users to the appropriate business process or group of business processes. Moreover, as the global context object is managed by the cognitive gateway, decision-makers no longer need to limit their interaction to a single, specific process, but benefit from the entire business process collection scope. For example, let's consider a team that is asked to implement a cloud platform microservice architecture as a common self-service analytics module for decision-makers. The main purpose of the platform will be to act as a data discovery engine that connects multiple data sources across the organization and provides business users with the ability to access the collection of existing IT business processes. One common approach is to build an access point to each business process from a common front-end gateway, thus allowing business users to interact with individual processes. Even if they would build an integration middleware to provide access to all existing IT business processes through a common platform, they would still limit the interaction to the context of each process. However, in the Enhanced Contextual Blocks Framework approach, a natural language classifier cognitive component can be implemented to act as a shared global context on top of the existing business process collection. This approach eliminates the boundaries previously set on a singular business process instance and, through the shared global context object, dynamically detects the intent of the platform user and maps it to the appropriate business process execution path. Another advantage of this architecture is the inter-process communication that can be established through the shared global context object. As in the standard Contextual Blocks Framework, this object is used to build the business process output, as well as store all intermediary states for further analyses. However, in the enhanced version of the framework, the cognitive computing gateway transcends the boundary between business processes and maps the request of decision-makers to the appropriate contextual block, regardless of its encompassing business process or location on the execution path. This can be done by implementing a natural language processing engine such as IBM's Watson Conversation Service\* as part of the cognitive computing gateway. The enriched architecture illustrated by the Enhanced Contextual Blocks Framework can provide insights into performance bottlenecks, as well as highlight efficient execution paths by mixing contextual blocks spanning across multiple IT business processes through dynamic context link building. Furthermore, the experience of decision-makers is improved by providing them with a mechanism that simulates natural conversations through cognitive computing, while also reducing the knowledge costs associated with the understanding of IT business processes.

### **Conclusions**

Through the *Contextual Blocks Framework* that we introduced in this paper we are attempting to provide a methodology that empowers business process architects and decision-makers to collaborate more efficiently in innovating an organization's business model. Furthermore, through the enhanced version of the Contextual Blocks Framework,

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\* Conversation | IBM Watson Developer Cloud - <https://www.ibm.com/watson/developercloud/conversation.html>

we illustrated a mechanism through which companies can incorporate cognitive computing technologies in their business model. At its core, the *Enhanced Contextual Blocks Framework* aims to improve the alignment between the functional definition of business process architectures and the actual implementation. Thus, this methodology can be leveraged to potentially increase the alignment between decision-makers and business process architects.

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