

## THE IMPACT OF THE ADOPTION OF INTEGRATED REPORTING ON THE DISCLOSURE OF KEY PERFORMANCE INDICATORS

Dumitru Mădălina<sup>1</sup>, Almășan Alina<sup>2</sup>, Circa Cristina<sup>3</sup>  
and Dumitru Valentin-Florentin<sup>4</sup>

<sup>1) 4)</sup> *Bucharest University of Economic Studies*

<sup>2) 3)</sup> *West University of Timișoara*

E-mail: madalina.dumitru@cig.ase.ro

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### Abstract

In the heart of the integrated reporting we find the concept of integrated thinking. Thus, integrated reporting is not only about disclosure, but also about changing the internal processes of the company. This should lead to an increase in the efficiency and, ultimately, in performance. Our objective is to identify whether the European companies included in the International Integrated Reporting Council's Pilot Program disclosed a bigger number of indicators. In order to do this, we analysed the reports published by the companies included in the Pilot Program in two moments in time: 2013 and 2016. We selected a set of nineteen indicators, considered the most important for the presentation of the six capitals suggested by the International Integrated Reporting Framework. Our results show that the worst situation is obtained for the intellectual capital. The situation was only improved for about a third of the companies included in the study. The study contributes to the scarce literature in the domain of the impact of integrated reporting in practice.

### Keywords

Integrated reporting, Pilot Program, Europe, capitals, key performance indicators.

### JEL Classification

M40

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### Introduction

Sustainable business management has currently become a must, considering the limits of nature (Morioka & Carvalho, 2016) and the obligation to consider not only the needs of the shareholders, but of the entire society (Marcus et al., 2010), without compromising the economic dimension (Elkington, 1997). The mankind's actions have serious consequences on the sustainability. Embedding sustainability into organisations and using sustainability reporting strategically is vital to address these issues (Higgins & Coffey, 2016). Sustainability reporting became a valuable way for managers to identify and address the sustainability challenges (KPMG, 2013), and drive improvements in company operations (Higgins & Coffey, 2016).

The most sophisticated answer of disclosure to these challenges is the integrated reporting (IR). Recent studies showed the benefits of the IR: better reputation (Steyn, 2014), meeting the expectations of employees (Adams & McNicholas, 2007), improved access to capital

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(Robinson et al., 2006), increased efficiency (Mio et al., 2016), waste reduction (Lozano & Huisingsh, 2011) and competitive advantages (Ojo et al., 2015).

We consider that our paper fills a gap in the specialized literature. The research is motivated by the fact that sustainability reports are often criticised for non-integration into day-to-day management activities, and for not advancing sustainability (Gray, 2010). Knowledge about the way in which sustainability reporting is used within organisations is limited (de Villiers et al., 2016). Also, studies about the effects of the adoption of IR are not numerous.

The IIRC proposes a classification using six capitals in the International Integrated Reporting Framework (IIRF). The six capitals are: financial capital, manufactured capital, intellectual capital, human capital, social and relationship capital and natural capital. The capitals are key concepts of IR and are used in the value creation process (Alexander et al. 2015; Dumitru et al., 2015; IIRC, 2013). As we are analysing integrated reports, in order to address our objectives we will refer within this paper to a set of key performance indicators (KPI) used to measure these capitals.

We include in our sample the European companies which were part of the International Integrated Reporting Council's Pilot Program (PP) (Scheiblich et al., 2017). We analyse the data provided in the 2013 and 2016 annual reports. We selected 2013 as a starting point because it is the year in which the IIRF was issued. The companies were already a part of the PP and they could benefit from the process of the IIRF's development. We selected 2016 as we consider that three years represent a decent period of time during which the results of the implementation of the IR could be seen. Also, at the date of the study, these were the last reports available.

Our paper is organized as it follows: the next section is dedicated to the literature review. The method section follows. Afterwards, we present the results of our study. The paper ends with the discussions and conclusions of our work.

## **1. Literature review**

Managers are increasingly paying attention to corporate sustainability performance (Antolin-Lopez et al., 2016), to its assessment and reporting (Cucek et al., 2012). One of the questions is whether this type of reporting is consistent in time. Companies are confronted with multiple objectives and need to make appropriate decisions, facing dichotomies like shareholder versus stakeholder; financial versus non-financial; single versus multiple measures. While the traditional view focuses on maximizing shareholder value (Jensen, 2001), in the stakeholders view (Hörisch et al., 2014) the company should create value for all its stakeholders. Hence, the development of a comprehensive measure of performance, as well as of instruments for managing multiple objectives, is a significant challenge. Though several studies introduced multi-stakeholder, multi-objective, and multi-level models for measuring corporate sustainability performance (Bonacchi & Rinaldi, 2007), no balanced single measure has been designed so far, able to embed Triple Bottom Line (TBL) and management control systems.

The term TBL was introduced by Elkington in 1994. The TBL "focuses on incorporating environmental and social performance indicators, while complementing and balancing the economic indicators, into company management, measurement and reporting processes" (Lozano, 2012: 23). Jamali (2006: 812) argues that the TBL "looks at how corporations manage and balance all three responsibilities (economic, environmental, and social) and attempts to reconcile these inter-related spheres". So, improving one type of performance should not jeopardize another. The author also acknowledges the difficulties: "while the appeal of TBL integration cannot be discounted, managing the trade-offs between the three legs of sustainability remains a challenge" (Jamali, 2006: 812).

TBL accounting means expanding the traditional reporting framework to take into account environmental and social performance in addition to financial performance. However, up to

this day, the organisations are rarely including information on social and environmental issues to the same extent and quality as that of financial information (Gray & Milne, 2004; Milne & Gray, 2013). A problem is that companies do not know what to disclose as there are about 400 sustainability reporting instruments (KPMG et al., 2016). There is no universal standard to measure TBL. More, Chatterji et al. (2014) pointed to a lack of convergence between the scores of different sustainability ratings, calculated for the same company. Cucek et al. (2012) revealed high variability and a lack of standardization among existing performance measurement instruments included in the sustainability footprint methodologies. One of the challenges faced by developers of assessment frameworks like the TBL was to construct a both comprehensive and meaningful index and identify suitable data for the variables that compose it.

All three pillars of the TBL refer to potential organizational goals, reunited under the broad concept of organizational effectiveness (Venkatraman & Ramunajam, 1986; Hamann et al., 2013). In business, TBL was implemented as part of the CSR policy, defined as “context-specific organizational actions and policies that take into account stakeholders’ expectations and the triple bottom line of economic, social, and environmental performance” (Aguinis, 2011: 855).

Some of the most used sustainability frameworks worldwide include: frameworks: GRI guidelines, United Nations Commission on Sustainable Development Framework, ISO 26000, Dow Jones Sustainability Index. The frameworks do not integrate the three dimensions of the sustainability reporting in a holistic manner (Antolin-Lopez et al., 2016). This leads to a presentation of an incomplete and false picture of the sustainability performance. The economic, social and environmental dimensions are, however, tightly related. Applying the IR could be beneficial for the exploration of the potential of these three dimensions. Also, the supporters of IR should work in the direction of standardization and consistency of measurements (Albu et al., 2013; Antolin-Lopez et al., 2016).

The 2014/95/ED requires the following disclosures regarding the *environmental dimension*: impacts on the environment, impacts on health and safety, use of renewable energy, use of non-renewable energy, GHG emissions, water and air pollution.

Several papers are addressing the information which should be disclosed under the *social dimension*. For instance, Gray & Milne (2004) consider that companies should present descriptive information about relationship between the organization and the stakeholder; data required through law and quasi-law; what the business wishes to express; and, finally, what the stakeholders themselves wish to see. Norman & MacDonald (2003) split the social performance indicators into the following categories: diversity, unions/industrial relations, health and safety, child labour and community. The 2014/95/ED requires the following disclosures to be included in the social category: actions taken to ensure gender equality; implementation of fundamental conventions of the International Labour Organisation; working conditions (including professional training and development); respect for the right of workers to be informed and consulted; respect for trade union rights; health and safety at work; the dialogue with local communities; actions taken to ensure the protection and the development of the local communities.

IIRC does not incorporate the concept of TBL into the IIRF. Instead, IR employs the concept of capitals. The IIRF defines these as ‘any store of value used by organisations in the production of goods and service’. It introduces six types of capital: financial, manufactured, intellectual, social and relationship, human, and natural. While the measures used to report on some of these indicators are well-established, in the case of others they are not very used. Of particular importance when reporting the capitals is to show the relationships between them.

In this research, we use a set of KPIs which are reported by KPMG (2017) as the most used by the companies preparing integrated reports in Japan. We consider that these indicators

are relevant as the study was conducted in three consecutive years and the top disclosed indicators were almost the same in all the versions. The indicators collected are: sales, operating income, net income (financial capital); number of employees, number of female employees, number of overseas employees (human capital); emissions of CO<sub>2</sub>, waste, energy consumption (natural capital); amount of capital investment/ expenditure, number of production bases/ sales offices, number of companies in the group (manufactured capital); research & development expenses, ratio of research & development expenses, number of patents (intellectual capital); social contributions, social contribution events, customer satisfaction, number of volunteers (social and relationship capital).

## 2. Research method

We started from the 104 companies included in the IIRC's Pilot Programme. We selected only the European companies because Europe is the most active region in the world in terms of CSR reporting (Habek & Wolniak, 2013). Thus, a number of 52 companies resulted. We downloaded the reports published for the financial years 2013 and 2016. We could not find reports issued by three companies. Thus, we analysed in total 49 reports per year. We analysed the reports written in English.

We made sure that the data was collected in a comparable format for each company for the two years. Data was extracted first for a number of five companies by one of the authors. Two other authors received the reports and the results for the five companies. They analysed the data collected and asked questions. Along the data collection process, the authors discussed about the difficulties encountered and made decisions together considering each situation identified. The data was collected by hand during the period July – September 2017.

We collected in excel the absolute values of the indicators presented above.

The following repetitive difficulties in the data collection can be pointed to:

- One and the same company did not necessarily report the same indicators for the description of a capital (mainly for the natural capital);
- Several issues (e.g. social contribution, volunteering, patents, customer satisfaction) are reported merely in a descriptive manner, with no exact quantification, or based on examples;
- As the selected companies have different areas of operation, they tend to favour some indicators over others.

The *objective* of our research is to identify whether the number of indicators disclosed by companies increased in time.

## 3. Results

The results are summarised in table 1.

**Table no. 1. Number of indicators reported by the companies included in the sample**

Indicator	2013		2016		Difference	
	Count	Percentage	Count	Percentage	Count	Percentage
<i>Financial capital (average)</i>	46.33	94.56	47.33	96.60	1.00	2.04
Sales	47.00	95.92	48.00	97.96	1.00	2.04
Operating income	46.00	93.88	47.00	95.92	1.00	2.04
Net income	46.00	93.88	47.00	95.92	1.00	2.04
<i>Human capital (average)</i>	37.00	75.51	38.33	78.23	1.33	2.72
Number of employees	48.00	97.96	49.00	100.00	1.00	2.04
Number of female employees	34.00	69.39	38.00	77.55	4.00	8.16
Number of overseas employees	29.00	59.18	28.00	57.14	(1.00)	(2.04)
<i>Natural capital (average)</i>	28.33	57.82	31.00	63.26	2.67	5.44
Emissions of CO <sub>2</sub>	36.00	73.47	39.00	79.59	3.00	6.12
Waste	23.00	46.94	26.00	53.06	3.00	6.12
Energy consumption	26.00	53.06	28.00	57.14	2.00	4.08
<i>Manufactured capital (average)</i>	29.33	59.86	29.00	59.18	(0.33)	(0.68)
Amount of capital investment/ expenditure	38.00	77.55	38.00	77.55	0.00	0.00
Number of production bases/ sales offices	16.00	32.65	18.00	36.73	2.00	4.08
Number of companies in the group	34.00	69.39	31.00	63.27	(3.00)	(6.12)
<i>Intellectual capital (average)</i>	14.33	29.25	13.33	27.21	(1.00)	(2.04)
Research & development expenses	23.00	46.94	23.00	46.94	0.00	0.00
Ratio of research & development expenses	12.00	24.49	12.00	24.49	0.00	0.00
Number of patents	8.00	16.33	5.00	10.20	(3.00)	(6.13)
<i>Social and relationship capital (average)</i>	11.50	23.47	13.00	26.53	1.50	3.06
Social contributions	21.00	42.86	22.00	44.90	1.00	2.04
Social contribution events	1.00	2.04	2.00	4.08	1.00	2.04
Customer satisfaction	19.00	38.78	20.00	40.82	1.00	2.04
Number of volunteers	5.00	10.20	8.00	16.33	3.00	6.13
<i>Average</i>	26.95	55.00	27.84	56.82	0.89	1.83
<i>Maximum</i>	48.00	97.96	49.00	100.00	4.00	8.16
<i>Minimum</i>	1.00	2.04	2.00	4.08	(3.00)	(6.13)
<i>Standard deviation</i>	14.66	29.91	14.87	30.36	1.85	3.78

Source: authors' compilation

A total number of 931 indicators were disclosed for each of the two years. 29 indicators were reported in 2013 (27 indicators in 2016) only in a narrative form by the companies included in the sample or were incompletely presented (they are not exactly quantified). As a consequence, they were not included in the analysis presented above. 515 indicators (55.32%) were disclosed in total in 2013 and 528 (56.71%) in 2016. For the total sample, the indicators were reported in average by 26.95 (55%) companies in 2013 and 27.84 (56.82%) companies in 2016. This means that in average 0.89 more companies (1.83%) reported the indicators selected for our study in 2016 as compared with 2013.

The indicator Number of employees was reported by the highest number of companies (48 – 97.96% in 2013 and 49 – 100% in 2016). The least reported indicator was Social contribution events (1 company – 2.04% in 2013 and 2 companies – 4.08% in 2016). The best score was registered by the Financial capital, with an average of 46.33 (94.56%) in 2013 and 47.33 (96.60%) in 2016. The lowest score was registered by the Social and relationship capital, with an average of 11.50 companies in 2013 (23.47%) and 13.00 companies in 2016 (26.53%). The highest increase in the number of companies which reported an indicator was registered by Number of female employees. Four more companies (8.16%) report on this indicator in 2016 as compared with 2013. The highest decrease in the number of companies which reported an indicator was registered for the Number of patents and for the Number of companies in the group. Three less companies (6.13%) report on these indicators in 2016. For only three indicators were registered decreases in 2016 as compared with 2013. This means that 16 indicators (84.21%) were reported by a higher number of companies in 2016. For two capitals (Manufactured and Intellectual capital) the average number of companies which reported the indicators included in the study decreased in 2016 as compared with 2013. For the other four capitals the average increased in time.

The comparison between the results obtained for Europe and for Japan (KPMG, 2017) for 2016 is presented in table 2.

**Table no. 2. Comparison between Europe and Japan**

Capital	Europe (%)	Japan (%)	Difference
Financial capital	96.60	87.33	9.27
Human capital	78.23	26.67	51.56
Natural capital	63.26	23.33	39.93
Manufactured capital	59.18	19.67	39.51
Intellectual capital	27.21	17	10.21
Social and relationship capital	26.53	2.50	24.03
<i>Average</i>	58.50	29.42	29.09
<i>Maximum</i>	96.60	87.33	51.56
<i>Minimum</i>	26.53	2.50	9.27
<i>Standard deviation</i>	27.80	29.57	17.35

*Source: authors' compilation*

We notice that the values obtained for Europe are higher than the ones obtained for Japan, which means that a bigger number of companies based in Europe are reporting on these indicators. A reason for this can be the fact that all the companies included in our study are included in the IIRC's PP. The biggest difference is registered for the human capital and the lowest for the financial capital, which is the best disclosed for both samples.

The number of indicators reported per company is presented in Table 3.

**Table no. 3. The number of indicators reported per company**

<b>Indicator</b>	<b>2013</b>	<b>2016</b>
Maximum number which could be reported	19	19
Maximum number of indicators reported by a company	17	17
Minimum number of indicators reported by a company	2	5
Average	10	11
Standard deviation	3.23	2.82

*Source: authors' compilation*

The maximum number of indicators which was reported by the companies included in the study in the two years is 19. We notice that for both years the maximum number of indicators reported by a company was 17 (89.47%). However, there is an increase in the number of indicators reported by a company showed by the increase in the average. Thus, a company reported on average 10 indicators (52.63%) in 2013 and 11 indicators (57.89%) in 2016. An increase is also noticed in the minimum number of indicators reported by a company, which was 2 (10.53%) in 2013 and 5 (26.32%) in 2016.

### **Conclusions**

Our study started from the idea that the incorporation of the integrated thinking in the companies should lead to an improvement in the performance of the companies. In order to test this, we selected the European companies which were included in the IIRC's PP. We extracted from the integrated reports published for 2013 and 2016 a set of indicators. The indicators selection was based on previous studies which found that they were the most disclosed for the types of capitals included in the IIRF. Our research objective was to identify whether the number of indicators disclosed by companies increased in time.

Based on the results of our study, a first conclusion is that the adoption of IR did not lead to a significant increase in the number of indicators presented. This is surprising as the IIRF is the first guideline suggesting the presentation of the capitals and the indicators selected were representative for the six capitals.

Another finding is that after twenty years since the launch of the TBL, the environmental (corresponding to the natural capital) and, respectively, social indicators (corresponding to the human and social and relationship capitals) are worse represented than the economic indicators (represented by the financial and manufactured capitals). Thus, the environmental line is disclosed, on average in the two years, by 60.54%, the social line by 50.94%, and the economic line by 77.55% of the companies. Also, even so there are so many initiatives involving the intellectual capital (for instance, conducted by WICI) and so many agree that it should be better presented, there is a decrease in the disclosure of the indicators associated with this capital during the analysed period.

When comparing our results with the ones reported by KPMG (2017), we notice that the European companies report the selected indicators in a bigger percentage. A reason for this can be the fact that all the companies included in our sample were part of the IIRC's PP.

In conclusion, the number of indicators disclosed increased during the analysed period for most of the companies included in the sample.

It should be noted that the research study has certain limitations. First, the research sample is limited to 52 companies which does not allowed to use more sophisticated statistical methods and the formulation of conclusions that could apply to the entire population. Second, while the adopted content analysis method provides a number of advantages, it also has its limitations – the most important is the coders' subjectivity. A third limit is represented by the selection of the indicators: there is no guideline regarding what the companies should report or not. Despite the above limitations, this paper adds to a relatively small number of studies that have dealt with the issue of the impacts of IR in practice. The

studies presented in the paper could encourage researchers from other countries to carry out similar studies and compare the results.

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