
ARE ALL ROMANIAN ENTREPRENEURS ALIKE? FINDINGS FROM THE GEM 2015 SURVEY

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Abstract

Research on entrepreneurship is very diverse, and far from being exhaustive and providing a unified view of entrepreneurs' characteristics and motivations. This also applies to how characteristics of entrepreneurs change based on the stage of their activity (Nascent, Baby and Established businesses), an issue for which there is little research carried out. This paper attempts to provide a comprehensive picture of the characteristics of Romanian entrepreneurs, using the last available (2015 wave) Global Entrepreneurship Monitor (GEM) Adult Population Survey (APS) data. The analysis shows that not all entrepreneurs tend to be predominantly male among Baby business owners, that Established business owners tend to be more frequent, and that household size matters for both Nascent and Established entrepreneurs. Most entrepreneurs tend not to be involved in activities pertaining to the primary sector, and most Baby business owners tend to take a more cautious approach towards adopting new products, venturing into new markets (domestic and international) and business expansion. Some Baby business owners intend to undergo significant expansions, sometimes with the help of new technologies. Results could inform policy making about the characteristics of entrepreneurs at different stages of entrepreneurial activity and help provide support to those which are more vulnerable with respect to their personal characteristics and industries in which they are active.

Keywords

early-stage entrepreneur, entrepreneurial characteristics, Global Entrepreneurship Monitor, logistic regressions

JEL Classification

L26, M13

Introduction

Entrepreneurs have captured the attention of economists as agents of innovation that drive economic progress. Very often, they make business news headlines with stories of initiative,

drive and success, which proves their role is consistent with what economic theorists have said. (Schumpeter, 1904 and 1934, cited by Dumitru and Dumitru, 2018) mentions that understanding entrepreneurs is essential to comprehend essential elements of economic growth.

While their role and importance in economic development is extremely important, most entrepreneurs are mostly owners of small or medium-sized enterprises (SMEs).

However, in spite of their size, SMEs play a major role in most market-oriented economies, generating a sizable part of the economic output and employ a large share of the workforce. According to the European Commission (2017), Romania SMEs employ two-thirds of the labour force, and generate over half of the GDP.

More recent research shows that, in Romania, SMEs have been adversely impacted by the recent economic crisis, which started in 2008 (Armeanu et al, 2015), exhibiting significant volatility in almost all economic sectors. This, along with a low capacity to innovate, and concentration in low value-added generating sectors, points out to the need to create a favorable business environment for SMEs, which, unlike large companies, have a lower capacity for surviving adverse economic events (Armeanu et al, 2015). To this extent, it is important to have a comprehensive picture of the Romanian SMEs, not only of their overall role and features, but also of their diversity and key differences that define entrepreneurial activities at different stages of their evolution.

Therefore, using one of the most authoritative survey of entrepreneurship data, the Global Entrepreneurship Monitor (GEM), I will attempt to draw a picture of the differences between entrepreneurs at different stages of entrepreneurial activity in Romania, for the first time in literature. Their characteristics and specific features can be useful in designing effective policies that will target their characteristics, overcome their weaknesses, help them survive economic hardship and ensure they can fulfill their dynamic role and foster a sustainable development of Romania's economy.

Literature review

Entrepreneurship has gathered a lot of attention, due to the importance of entrepreneurial spirit and the need to better understand its drivers and characteristics.

In a survey paper, Kerr et al. (2017) shows the current level of knowledge with respect to academic research of entrepreneurship, and identifies the models that describe their personality traits, among which choice of employment, personality traits, effects of policies and approaches to foster entrepreneurship education. They conclude that there is a high degree of heterogeneity, in the conclusions of the studies, in the survey methodologies and in the terminology that defines entrepreneurs.

Case studies for different countries are thus heterogeneous in their findings, too. Among studies that focus on Eastern European Entrepreneurs we note the contributions of Kozubíková et al. (2017). They found, for a sample of Czech SME's, that not age and gender, but the level of education was essential in the management of financial risks. Differences by gender and age were significant in relation with decisiveness, optimism and risk-taking. Using GEM data for 2007-2009, Pete and al (2010) found out that male, employed full-time, without no fears of failure, are more likely to engage in entrepreneurial activities. In a study on US, European and Asian entrepreneurs, van der Zwan et al. (2016), show statistically significant differences among entrepreneurs based on their motivation to start their own operation: opportunity and necessity. The following features were more prevalent of opportunity entrepreneurs: being a male, younger, richer, proactive, and rather optimistic, whereas innovativeness and optimism were more prevalent for necessity entrepreneurs.

An OECD note (OECD, 2018) shows that Romanian entrepreneurs exhibit a higher proportion of youth, older people and women compared to the EU average. However, this

seems to be due to the prevalence of the necessity reasons. They tend to be involved in the following sectors: agriculture, construction and trade. Compared to other EU entrepreneurs, they tend to be more export-oriented, less focused on delivering innovative products (with the exception of entrepreneurs aged 50-64), and more focused on job creation. In a study using 2014 wave of the GEM survey, Dézsi-Benyovszki et al. (2014) reveal characteristics that are prevalent for Romanian entrepreneurs. They show a prevalence of males, middle-aged individuals between 25 and 44, and upper-income tier individuals. Necessity played a high role, although opportunity-driven entrepreneurs prevail. Compared to established entrepreneurs, early-stage entrepreneurs are mostly involved in activities pertaining to the extractive sector, and business services sector, and tend to use the latest technology more often. With respect to job creation, there was no sizable difference, as both established and early-stage entrepreneurs having 1-5 employees. However, the proportion of early-stage entrepreneurs was lower than for those with established businesses. These findings motivated us to draw a profile of Romanian entrepreneurs based on the stage of the entrepreneurial activity.

Research Approach: Questions, Methodology and Data

‘Not all entrepreneurs are alike’ states the GEM description of Adult Population survey (GEM, n.d.). The existing research has, to some extent, distinguished between different stages of entrepreneurial activity. A distinction is made in GEM between early-stage entrepreneurs and established business owners (Singer et al., 2015) within a conceptual framework which relates the stage of entrepreneurial activity with essential characteristics which help distinguish their traits (Figure 1). Our research will try to distinguish the differences between entrepreneurs at different stages with respect to their characteristics, which will be explained further in the description of the methodology.

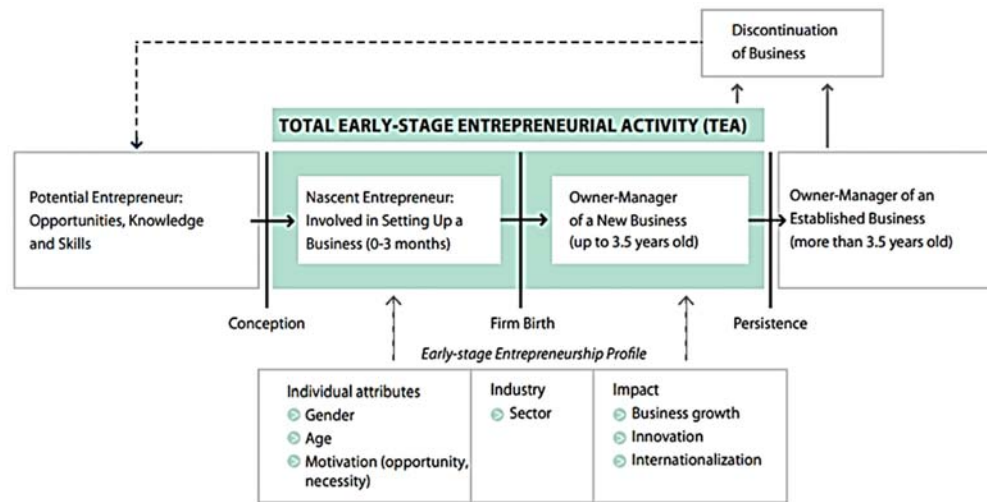


Fig. no.1 GEM Model for business phases and entrepreneurial characteristics

Source: Singer et al., 2015

The research is carried out using logistic regression, similar to the approach of Dumitru and Dumitru (2018), using the glm function in R. The general theoretical model of the logistic regressions employed is:

$$\pi = E(y/m) = \exp(\alpha + \beta X) / [1 + \exp(\alpha + \beta X)] \quad (1)$$

where $E(y/m)$ represents the expected probability of occurrence of a dependent variable, α is the intercept X the matrix of explanatory variables, and β the vector of coefficients of the explanatory variables.

Dependent variables represent the three stages of entrepreneurial activity, with variable names shown in brackets: Nascent entrepreneur (SU), Baby business owner (BB) and Established business owner (ES).

Explanatory variables, except for age were modelled as dummy variables, too. They are:

1) personal characteristics: gender (FEM), modelled as being a woman, age (AGE), motivation for becoming an entrepreneur (opportunity (INCRINC, INDEP), necessity (NECESSITY), or both reasons (MIXED)

2) economic sector (EXTRACTIVE, TRANSFORMING, BUSINESS.SERV, CONSUMER)

3) economic impact with respect to

a) business growth (NO.EXP, SOME.EXP, PROFOUND.EXP, SOME.EXP.NewT)

b) new products and markets (NPM) and

c) international orientation as a percentage of activity (NOINT, INT76_100, INT26_75, INT0_25).

Based on the literature review findings and content of the GEM APS survey, we have also included household size (HHSIZE) as a measure of both family support and sense of responsibility associated with starting and having a business, work status (WORK), modelled as a dummy for persons stating work as their status, as opposed to not working or being a student or retired person, and education level of the owner/manager (POSTSEC and TERTIARY).

Data were available from the GEM website, and included a sample of 2002 respondents, among which owners of managers of small businesses, along with aspiring or former entrepreneurs. The survey was carried out in 2015.

Results

Regression results presented below (Table no. 1) show which of the features chosen to be analyzed are statistically significant.

Results are presented as both exponential coefficients and odds ratios (OR), which are the exponential of the parameters corresponding to the explanatory variables. An odds ratio above 1 is associated with a higher probability that a certain entrepreneur has that specific characteristic, whereas a value below 1 means he/she is less likely to have that feature.

Results show that women are less likely to be owners of both Nascent and Established businesses, and the opposite is true when it comes to size of the household. Nascent entrepreneurs are more likely to be younger, whereas the opposite is true for Established business owners. Baby businesses and established businesses are more likely to have an university degree, and being employed increases the likelihood of being an entrepreneur for everyone. No significant results were obtained with respect to motivation; it appears that all entrepreneurs are a diverse mix, with no reason coming out as more prevalent among all SME types.

Table no. 1 Entrepreneurs’ Personal Characteristics

	SU			BB			EB		
	Estimate	OR	Sign.	Estimate	OR	Sign.	Estimate	OR	Sign.
(Intercept)	-1.990	0.137	***	-3.972	0.019	***	-6.771	0.001	***
FEM	-0.403	0.668	**	-0.298	0.743		-0.324	0.723	.
AGE	-0.012	0.988	*	-0.008	0.992		0.032	1.032	***
POSTSEC	-0.095	0.909		-0.951	0.386		0.305	1.357	
TERTIARY	0.061	1.063		0.370	1.448	.	0.628	1.874	***
HHSIZE	0.077	1.080	.	0.041	1.042		0.150	1.161	**
WORK	1.073	2.923	***	1.512	4.535	***	2.626	13.820	***
<i>McFadden R²</i>	0.212			0.053			0.104		
INCRINC	19.064	2E+08		26.871	5E+11		28.086	2E+12	
INDEPEND	18.708	1E+08		26.919	5E+11		28.159	2E+12	
MIXED	19.000	2E+08		26.913	5E+11		28.130	2E+12	
NECESSITY	19.076	2E+08		26.899	5E+11		28.164	2E+12	
<i>McFadden R²</i>	-			-			-		

Source: author’s calculations. Significance levels *** $p < 0.001$, ** $p < 0.01$, * $p < 0.5$, . <0.1
McFadden R² not reported for unreliable estimations.

Table no. 2 Entrepreneurs’ Industry

	SU			BB			EB		
	Estimate	OR	Sign.	Estimate	OR	Sign.	Estimate	OR	Sign.
(Intercept)	1.341	3.824	***	-0.274	0.761		26.570	3E+11	
EXTRACTIVE	-3.108	0.045	***	-6.295	0.002	***	-53.130	8E-24	
TRANSFORMING	0.364	1.438		0.347	1.415		0.000	1	
BUSINESS.SERV.	0.576	1.778		0.076	1.079		0.000	1	
CONSUMER	1.198	3.313	.	0.243	1.276		0.000	1	
<i>McFadden R²</i>	0.211			0.587			-		

Source: author’s calculations. Significance levels: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.5$, . <0.1
McFadden R² not reported for unreliable estimations.

Compared to other findings (OECD, 2018), it appears that, in 2015 Nascent and Baby businesses were less likely to operate in the ‘extractive sector’ which consists mostly of agriculture activities (Table no 2). Nascent businesses were also about three times more likely to operate in consumer-oriented businesses. While data was available, no reliable estimates could be obtained for Established businesses.

The impact of entrepreneurial activity (Table no 3), shows marked differences between Nascent and Baby businesses. Whereas the former attempts to tackle new products and markets, the latter is less likely to do so. The same goes, in general, with respect to international orientation, which is stronger for Nascent businesses, and least strong for Baby Businesses. With respect to expansion plans, Nascent businesses are the least likely to make no changes, whereas Baby businesses are most likely to do so. Baby businesses are twice as likely as Nascent businesses to make expansions with new technology, whereas most Nascent businesses are likely to expand without the use of technology. No reliable results were obtained, however, for Established businesses, suggesting that no significant

differences were found among them on adopting new products, exploring other markets, having expansion intentions and having an international orientation.

Table no. 3 Entrepreneurs' Impact

	SU			BB			EB		
	Estimate	OR	Sign.	Estimate	OR	Sign.	Estimate	OR	Sign.
(Intercept)	-1.64893	0.192	***	-4.76	0.009	***	-5.461	0.004	***
NPM	2.38414	10.85	***	-0.62	0.538	.	23.776	2E+10	
INT76 100	15.24432	4E+06		4.36	78.36	***	25.380	1E+11	
INT26 75	3.36035	28.799	***	4.85	128.29	***	25.685	1E+11	
INT1 25	2.78061	16.129	***	4.65	104.57	***	25.702	1E+11	
INT0	2.9265	18.662	***	5.04	154.41	***	25.799	2E+11	
<i>McFadden R²</i>	0.178			0.473			-		
(INTERCEPT)	-1.72581	0.178	***	-4.4964	0.011	***	-4.055	0.0173	***
NO.EXP	2.98458	19.778	***	4.6956	109.46	***	23.621	2E+10	
SOME.EXP	4.25632	70.55	***						
SOME.EXP.NEWT	3.66203	38.94	***	4.2073	67.175	***	23.621	2E+10	
PROFOUND.EXP	17.3313	3E+07		3.0134	20.356	***	23.621	2E+10	
<i>McFadden R²</i>	0.204			0.457			-		

Source: author's calculations. Significance levels: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.5$, . < 0.1
McFadden R² not reported for unreliable estimations.

Conclusions and discussion

The analysis done on different characteristics of business owners, at different stages of entrepreneurial activity, has found some surprising differences, and only partially confirms findings in the existing literature.

Thus, the prevalence of male entrepreneurs does not apply to baby business owners among which women seem to play a more important role. Established entrepreneurs tend to be older, unlike Nascent entrepreneurs, and university-educated owners tend to be more prevalent among Baby business and Established business owners. An household size does matter for Nascent entrepreneurs and, to a significantly greater extent, for established business owners, invalidating the cliché of a young, resourceful individual in quest of fulfilling his/her ambitions.

Among all business owners seem to have been motivated by both opportunity and necessity reasons alike, with no significant differences emerging among them.

Compared to literature findings early-stage entrepreneurs (Nascent and Baby business owners) were less likely to engage in activities in the primary sector, which in Romania, includes agriculture. It seems that Nascent businesses are more likely to engage in consumer-oriented activities, and ready to tackle the challenge of making or selling new products and entering new markets.

The rather stark contrast between Nascent businesses and Baby businesses, with the latter tending to avoid new products and markets, and focus more on the local markets, is rather worrying, and further research is needed to see if this is due to the impact of the economic crisis which ended around 2013. This may be hinted by the fact that, although most Baby businesses foresee no future expansion, many others consider expansion using new technologies to a greater extent than Nascent businesses.

These results can help provide a more nuanced picture of characteristics of entrepreneurs, and shed some light of potential generational transformation among them. It could provide

insights that can inform policy making with respect to different initiatives that support entrepreneurs with respect to increasing their business survival rates and promote those with potential expansionary intentions which lack the means to accomplish them. It also sheds light on the profile of those who succeed in staying in business after 3.5 years, thus highlighting early-stage entrepreneurs with potential vulnerable traits, and pointing out to those with more chances to succeed.

One major drawback of the study is the rather scarce data with respect to established entrepreneurs. Based on results uncovering their personal differences, more research and data availability could be of help in uncovering characteristics of entrepreneur cohorts. This data could also help determine to what extent differences are due to the economic environment they operate, and are the result of either favorable or adverse economic conditions that favored those with certain backgrounds and strategies.

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