Abstract

The main aim of the paper is to investigate the drivers of entrepreneurial intentions in Romania based on the Global Entrepreneurship Monitor database. Particularly, it examines the factors which drive the necessity, opportunity and mixed motives of entrepreneurship. Using four samples of data and logistic regressions, the paper identifies the most significant drivers of entrepreneurial intentions by motivational factors – necessity, opportunity, and mixed motive - and proposes some policy actions to stimulate entrepreneurship.

Keywords: early-stage entrepreneur, entrepreneurial intentions, opportunity-driven entrepreneurship, Global Entrepreneurship Monitor, logistic regressions

JEL Classification: L26, M13

1. Introduction

There is an old and wide consensus among academics and policymakers that entrepreneurship plays an important role in economic growth. Schumpeter (1904, 1934) shows that entrepreneurship is essential in understanding the drivers of economic growth. The entrepreneur brings innovation and creates economic development, with positive impact on job creation.

For the Central and Eastern European countries (CEE) which started their transition to the market economy after the fall of communism, the entrepreneurial endeavor started with the negative legacy (Estrin et al., 2006) of the formerly planned economy. Many policy makers considered the setup of new enterprises as being the most important routes to create the private sector after the fall of socialist regimes (Kornai, 1990). However, the entrepreneurship development in the CEE countries was uneven. Romania was a laggard in creating the private sector as compared to the other CEE countries, especially the Visegrad countries (Dumitru and Dumitru, 2017). Dumitru and Dumitru (2017) showed that
for newly registered companies, Romania had one of the lowest business density rates among the CEE countries during the transition period.

In this paper, we work with a more comprehensive data sample than in Dumitru and Dumitru (2017), using the data from the Global Entrepreneurship Monitor (GEM). The scope of the paper is to investigate the drivers of entrepreneurial intentions at the global level based on the comprehensive database of GEM. Also, in the paper we make estimates on some alternative data samples – European Union countries, Central and Eastern Europe countries and Romania to see if there are some differences in terms of determinants of entrepreneurial intentions for different countries/group of countries.

The section 2 of the paper presents the philosophy of the GEM project, defining the concepts and the methodological framework. In section 3 we review the literature on drivers of entrepreneurial intentions, especially the papers where the GEM database is used. In sections 4 and 5 we present the data, the estimation methodology, and the results we obtained, and section 6 concludes the results of the paper and draws some policy implications.

2. The GEM Conceptual Framework for Entrepreneurship

Based on the GEM methodology (Global Entrepreneurship Monitor, 2018), entrepreneurship includes different phases, from intention to start (potential entrepreneur), to just starting a new business, to running of new or established businesses, and maybe to discontinuing a business (Global Entrepreneurship Monitor, Global Report 2017-2018). In GEM, the entrepreneurship is a combination of the framework conditions and personal traits and capabilities of individuals to find and take advantage of different business opportunities. The practical utility of GEM is that it identifies the factors which stimulate or restrain entrepreneurship, and is a very good tool for policy makers to find solutions to stimulate the entrepreneurial activity as part of their efforts to generate economic growth.

The GEM collects data at global level with a very good coverage (67.8% of the global population and 86% of the global GDP in the 2017 survey). The survey covers topics on entrepreneurial aspirations, attitudes, intentions and activities. Also, entrepreneurship is covered during its full cycle, from inception of a business to its demise. The entrepreneurial framework is assessed by a selection of national experts’ perceptions of the following topics: funding for entrepreneurs; government policies (support and relevance, taxation policy and bureaucracy); government entrepreneurship programs; entrepreneurial education (during school, post-school and training); research and development transfer; commercial and legal infrastructure; internal market dynamics, burden and entry regulation; physical infrastructure; cultural and social norms. Also, GEM surveys the societal values and perceptions related to entrepreneurship. The individuals are asked if they think that entrepreneurship is a good career choice and if they believe that high status is afforded to successful entrepreneurs. Media reflection on entrepreneurship is also surveyed.

GEM covers the individual characteristics of a potential entrepreneur surveying the following topics:

- Perceived opportunities to start a business - the respondent is asked if he/she sees a good opportunity to start a business in their area of living,

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- Perceived capabilities - the respondent is asked if he/she thinks they have the necessary skills and knowledge to start a business,
- Entrepreneurial intention - the respondent is asked if he/she wants to start a business within three years,
- Fear of failure - the respondent is asked if fear of failure would prevent them from starting a business.

Based on the data collected through surveys in GEM, there are some entrepreneurial activity indicators which may be calculated (see Global Entrepreneurship Monitor, Global Report 2017-2018):

- Total Early-stage Entrepreneurial Activity (TEA) - the percentage of the adult population aged 18–64 years in the process of starting a business (nascent entrepreneur) or which started a business less than 42 months before the survey took place (owner-manager of a new business). Additional information is also available on the motivation of entrepreneurial activity (opportunity driven, necessity driven or mixed motives), gender and age of the entrepreneur, expected job creation, innovation, and economic sectors.
- Established business ownership rate - the percentage of the adult population aged 18–64 which is currently an owner-manager of an established business (business that has paid salaries, wages, or any other payments to the owners for more than 42 months).
- Business discontinuation rate - the percentage of the adult population aged 18–64 that discontinued a business in the past twelve months.
- Entrepreneurial Employee Activity (EEA) - the percentage of the adult population aged 18–64 which, as employees, was involved in entrepreneurial activities.
- Social Entrepreneurial Activity (SEA) - the percentage of the adult population aged 18–64 which is engaged in early-stage entrepreneurial activities with a social goal.

3. Literature Review

Bzhalava et al. (2017) studied entrepreneurial intentions and initiatives in Georgia. They investigated the factors that drive the necessity- and opportunity-based entrepreneurial intentions. Using the Global Entrepreneurship Monitor database on Georgia, they found that general education and business training after school education were statistically significant and positively related to opportunity-based entrepreneurship intentions. Also, general education and business training after school do not provide a significant sign for necessity-driven entrepreneurship intentions. Female gender seems to have significantly lower rates of entrepreneurial intentions than men in Georgia. Income distribution did not provide a significant relationship with entrepreneurial activity in their estimations.

Pete et al. (2010) analyzed the main influencing factors (gender, age, education, household income, work status, networking, opportunity perception, capabilities perception, and some others) of the probability of becoming an early-stage entrepreneur in Romania. They used the GEM data on Romania for the 2007-2009 period to estimate logistic regression models between early stage entrepreneurship rate and exogenous variables. They found that the male younger adults who were full time employed, without fear of failure, were more likely to initiate entrepreneurial activities.

Nishimura and Tristan (2011) focused their study on the factors that lead individuals to create businesses. They used the theory of planned behavior to understand and predict nascent entrepreneurship using the Global Entrepreneurship Monitor data for Peru. Their results
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show that only the opportunities perception concerning entrepreneurship and perceived behavioral control have significant effects on entrepreneurship. Arenius and Minniti (2005) used GEM data for 28 countries to identify the variables that influence the decision to become an entrepreneur. Their results show that the demographic and economic features are key factors for assessing the probability to set up a new business. The opportunity perception, fear of failure, knowing other entrepreneurs, capabilities perception, were found to have a significant effect on nascent entrepreneurship.

Verheul et al. (2010) investigated the determinants of engagement in various stages of the entrepreneurial activity using 2007 survey data for 27 European countries and the US. Their results showed that entrepreneurship specific education, risk tolerance, perception of lack of financial support, and living in a metropolitan area are important drivers of entrepreneurial engagement and failure for opportunity-driven entrepreneurs. Pete et al. (2011) identified the influencing factors of early-stage entrepreneurial aspirations in efficiency-driven economies based on the Global Entrepreneurship Monitor database for 2008. They investigated also innovation in entrepreneurship and job growth expectations. Their estimations included individual-level (socio-demographic and perception variables) and country-level explanatory variables. The results confirmed that the increase in venture capital availability and the decrease in the inflation rate have positively influenced the probability of becoming an innovation-oriented early-stage entrepreneur in an efficiency-driven economy. Also, young entrepreneurs are more likely to be innovative. They have also found a negative relationship between the risk aversion and the probability of becoming an innovative entrepreneur.

4. Methodology and Data

We use in the estimates the Global Entrepreneurship Monitor database for 2014, the most recent year with available data for Romania at individual level (Romania is no longer part of the GEM database since 2015). The estimates are performed using 4 data samples at individual level: one with the full global data, one with data only for Romania, one with data for the CEE countries included in the GEM database, and one with all the European countries in the GEM database. The data samples used in the estimations have between 2,001 and 201,841 respondents.

The aim of the paper is to investigate the drivers of entrepreneurial intentions. The dependent variable in our estimations is the entrepreneurial intention (see Table 1). The dependent variable is divided into 3 sub-variables based on motivation of entrepreneurial intention: necessity, opportunity and mixed motives. The variables used in our estimation are defined in Table 1.

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<th>Variable</th>
<th>Definition</th>
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<tr>
<td>Entrepreneurial intention (TEAYYWHY)</td>
<td>Motives for entrepreneurial intentions: 1 for necessity motives, 2 for opportunity motives, 3 for mixed motives, and 0 for no entrepreneurial intention</td>
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<td>Necessity-driven early-stage entrepreneur (TEAYYNEC)</td>
<td>1 if the motive for entrepreneurial intention is necessity</td>
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<tr>
<td>Opportunity-driven early-stage entrepreneur (TEAYYOPP)</td>
<td>1 if the motive for entrepreneurial intention is opportunity</td>
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<th>Variable</th>
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<tr>
<td>Mixed motives-driven early-stage entrepreneur (TEAYYMIX)</td>
<td>1 if the motive for entrepreneurial intention is both necessity and opportunity.</td>
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<td>Fear of failure (FEARFAIL)</td>
<td>Fear of failure would prevent you from starting a business: 1 if YES.</td>
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<td>Female (FEMALE)</td>
<td>1 if Female.</td>
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<td>Household income (GEMHHINC)</td>
<td>Income recorded into thirds: 2 if in the upper 33% tile, 1 if in the middle 33% tile, 0 if in the first 33% tile.</td>
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<td>Age (AGE)</td>
<td>Age of respondent.</td>
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<td>Knowing other entrepreneurs (KNOWENT)</td>
<td>Personally knows someone who started a firm in the past two years: 1 if YES.</td>
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<td>Starting a business as a desirable career choice (NBGOODC)</td>
<td>Starting a business as a desirable career choice: 1 if YES.</td>
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<tr>
<td>Often seen stories in the public media about successful new businesses (NBMEDIA)</td>
<td>You will often see stories in the public media about successful new businesses: 1 if YES.</td>
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<td>Those successful at starting a business have a high level of status and respect (NBSTATUS)</td>
<td>Those successful at starting a business have a high level of status and respect: 1 if YES.</td>
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<tr>
<td>Perceived business skills (SUSKILL)</td>
<td>Perceives to have the required knowledge and skills to start a business: 1 if YES.</td>
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<td>General education (UNEDUC)</td>
<td>6=Second stage of tertiary education, 5=first stage of tertiary education, 4=(Upper) secondary education, 3=Lower secondary or second stage of basic education, 2=primary education or first stage of basic education, 1=pre-primary education.</td>
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<tr>
<td>After school business education (YTRANLF)</td>
<td>1 if the respondent has taken part in training on starting a business after completing the education in school.</td>
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<tr>
<td>Business school education (YTRANSC)</td>
<td>1 if the respondent has taken part in training on starting a business at primary or secondary school.</td>
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</table>

The explanatory variables from the estimates cover different aspects of the potential drivers of entrepreneurial intentions:

- Fear of failure – The variable indicates if the respondent in the survey is affected in this entrepreneurial decision by the fear to fail. The existent literature suggests that fear of failure should be a negative factor for entrepreneurial intention, as most individuals are risk-averse.
- Gender of individuals – Most of the existing literature suggests that the entrepreneurship rate is higher among male rather than female individuals.
- Household income – The previous studies show that people with higher incomes are less inclined to engage in necessity-driven entrepreneurship. On the contrary, higher income people are expected to have a higher propensity to engage in opportunity-driven entrepreneurship.
- Age – Age of the respondent is expected to be negatively related to the entrepreneurial intention, older people being less interested in starting a business.
- Knowing other entrepreneurs – If a respondent knows other entrepreneurs who started a business in the last 2 years, he/she is more likely to be attracted by a business initiative.
So, networking with other entrepreneurs should be positively related to entrepreneurial intentions.

- Perceived business skills – If individuals think they have the right knowledge, skills, and experience to start a business, most likely their appetite to start a business would be higher.
- General education – The respondents are asked to indicate the highest level of education they completed.
- After school business education – The respondent is asked if he/she has participated in training on starting a business after completing the education in school.
- Business school education – The respondent is asked if he/she has participated in training on starting a business at primary or secondary school.
- Starting a business as a desirable career choice – The respondents are asked if they think that starting a business is a good career choice.
- Positive stories in the public media about successful new businesses – The respondent is asked if media reports often positive stories of entrepreneurs.
- High status and respect - The respondent is asked if he/she thinks that successful people in starting a business have a high level of status and respect.

We use as econometric methods the multinomial logistic model to estimate the equation between different entrepreneurial intention motives and explanatory variables. In the case of sub-indicators of entrepreneurial intention, we used binary logistic models.

5. Estimation Results

The logistic models were applied to 4 samples of data, one with the full data available in the GEM database for 2014, one which covers the Central and Eastern European countries, one with Romania’s sample, and one with all the EU member countries covered by GEM. Also, the estimates were performed for each sample with 4 definitions of entrepreneurship intentions (as a dependent variable): total entrepreneurship intentions, necessity-driven entrepreneurship, opportunity-driven entrepreneurship, and mixed motives-driven entrepreneurship.

In the case of full sample of data, almost all the explanatory variables are statistically significant in the estimates, except the status and respect of entrepreneurs in the case of opportunity-driven entrepreneurs, media stories about successful new businesses in the case of necessity-driven entrepreneurs, and entrepreneurship as a desirable career choice in case of mixed motives-driven entrepreneurs. Fear of failure (in line with expectations), age (in line with expectations, see Hatak et al., 2015), and the status and respect for entrepreneurs (against expectations) have a negative impact on entrepreneurship intentions in all specifications. Also, knowing other entrepreneurs (networking of entrepreneurs), media stories about entrepreneurship success stories, perceived business skills, and after school business education, in line with expectations, have a positive impact on entrepreneurship intentions in all specifications. Also, females are more likely to embark on an entrepreneurship activity in the case of necessity-driven entrepreneurs and total entrepreneurial intention, and being a female is negative for opportunity- and mixed motives-driven entrepreneurial intentions. Also, the level of household income has a positive impact on opportunity- and mixed motives-driven entrepreneurship. At the same time, when income is higher there is less appetite for necessity-driven entrepreneurship and for total
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entrepreneurial intentions. Entrepreneurship as a desirable career choice is negative for opportunity-driven entrepreneurship, but positively related with the other cases of entrepreneurial intentions. General education seems to be positive only for opportunity-driven and mixed motives-driven entrepreneurs. Also, a person who has participated in training on starting a business after school was completed is likely to embark in all kinds of entrepreneurial activity. The people who have participated in training at primary or secondary school are more likely to embark in opportunity-driven entrepreneurship.

In the case of the other data samples, some indicators are not statistically significant, especially when the number of respondents is lower. Fear of failure seems to have a stronger negative impact on opportunity-driven entrepreneurs in the CEE countries, and in the particular case of Romania. Also, fear of failure seems not to stop a necessity-driven entrepreneur to start a business in the CEE and Romania’s particular case (although the coefficient is not statistically significant). In the EU sample, fear of failure has a negative sign in all specifications, which is the same situation with the case of entire sample of data. Being a female in the case of transition countries or in the EU countries in general is a negative factor for entrepreneurial intentions, irrespective of the driver of entrepreneurship. In the case of household income, the impact on entrepreneurial intention is quite similar with the full sample estimations. Also, the networking (knowing other entrepreneurs) and after school business school training are stronger positive factors for entrepreneurial intentions in the case of EU as a whole and transition countries from EU compared with the full data sample.

6. Conclusions and Policy Implications

The main aim of the paper was to investigate the drivers of entrepreneurial intentions. Particularly, it examined the factors which drive the necessity-, opportunity- and mixed motives-driven entrepreneurship.

In the case of full sample of data, fear of failure, age, and the status and respect for entrepreneurs were found to have a negative impact on entrepreneurship intentions in all specifications. Also, knowing other entrepreneurs, media stories about entrepreneurship success stories, perceived business skills, and after school business education, have a positive impact on entrepreneurship intentions in all specifications. Females are more likely to embark in an entrepreneurship activity in case of necessity-driven entrepreneurs and total entrepreneurial intention, and being a female is negatively related to opportunity- and mixed motives-driven entrepreneurial intentions. Also, the level of household income has a positive impact on opportunity- and mixed motives-driven entrepreneurship. At the same time, when income is higher there is less propensity for necessity-driven entrepreneurship and for total entrepreneurial intentions. Entrepreneurship as a desirable career choice is negative for opportunity-driven entrepreneurship, but positively related to the other cases of entrepreneurial intentions. General education seems to be positive only for opportunity-driven and mixed motives-driven entrepreneurs. Also, a person who has participated in training on starting a business after school was completed is likely to embark in all kinds of entrepreneurial activity. A person who has participated in training on starting a business at primary or secondary school is more likely to embark in an opportunity-driven entrepreneurship.

Fear of failure seems to have a stronger negative impact on opportunity-driven entrepreneurs in the case of the data sample of the CEE countries, and in the particular case of the data sample of Romania. Also, fear of failure seems not to stop a necessity-driven entrepreneur to start a business in the CEE and Romania’s particular case. The networking
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(knowing other entrepreneurs) and after school business school training are stronger positive factors for entrepreneurial intentions in the case of EU as a whole and transition countries from EU as compared to the full data sample.

Based on the results of our study, we can draw some policy implications. The study identified that people participating in training on starting a business after school was completed are more likely to follow an entrepreneurial career. This suggests that entrepreneurial education/training can be a key policy instrument in stimulating entrepreneurial intentions. This kind of education/training would be especially needed for people who are unemployed or inactive (not in the labor market) to help them with the required skills and knowledge to identify and seize the entrepreneurship opportunities. According to Eurostat, the share of inactive population in Romania was 34.4% in 2016, the highest share in the EU. In the case of females, the share of inactive population was 43%. Also, the share of young people (aged 20–34) neither in employment nor in education and training (NEET) was 23.5% (31.8% in the case of females), one of the highest rate in the EU.

Also, in the case of Romania, we found that women have a lower entrepreneurial intention than men. As a result, the distribution of TEA in Romania was in 2014 70.6% male and only 29.4% female (only 0.41 the female/male TEA, vs. 0.55 the average of Europe and 0.71 the global average), showing that women are an unutilized entrepreneurial resource in the country. In order to address this issue, the Romanian Government should help making the entrepreneurial training available especially to female individuals. We found in the study that the level of household income has a positive impact on opportunity- and mixed motives-driven entrepreneurship and negative on necessity-driven entrepreneurship (if the income is lower, the probability to be a necessity-driven entrepreneur is higher). Income inequality in Romania is one of the highest at the EU level (GINI coefficient of income inequality in Romania was 35 in 2014 vs. the average of 30.9 in EU), and this is a negative factor for the quality and quantity of entrepreneurship in Romania, the majority of population being financially constrained in starting a business. Thus, reducing income inequality might be supportive for stimulating entrepreneurship, especially opportunity-driven entrepreneurship. Acting to decrease the fear of failure with some governmental policies may improve the entrepreneurial level in Romania, as fear of failure was found in the estimates as being a strong impediment for opportunity-driven entrepreneurship. One idea in this direction would be to make the impact of a failure less severe, improving the bankruptcy legislation in the way to help increasing the recovery rate in case of insolvency of a business partner, or to decrease the time length of an insolvency procedure.

Also, helping the entrepreneurs to know each other and stimulating the networking of entrepreneurs should be also a route to stimulate entrepreneurship in Romania.

References


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Verheul, I. Thurik, R. Hessels, J. and van der Zwan, P., 2010. Factors influencing the entrepreneurial engagement of opportunity and necessity entrepreneurs. EIM Research Reports.
Appendix: Table 2. Estimate Results Using Logistic Regressions

<table>
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<tr>
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<th>Female</th>
<th>Male</th>
<th>Age</th>
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Note: ***Statistically significant at 1%; **statistically significant at 5%; *statistically significant at 10%; Standard errors in brackets.