

Entrepreneurship in Romania, Country Report 2012

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Although GEM data were used in the preparation of this report, their interpretation and use are the sole responsibility of the authors.



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Executive summary

The Global Entrepreneurship Monitor (GEM) is the most important and comprehensive international study of entrepreneurship and the entrepreneurial environment. The GEM study in 2012 covers 74% of the world's population and 87% of its GDP. In Romania the study is conducted by the Babeş-Bolyai University of Cluj-Napoca, Faculty of Economics and Business Administration. A total of 2,004 adults were interviewed in the Adult Population Survey (APS) for this study in 2012. In order to assess the national conditions influencing entrepreneurial activity 36 national experts completed a closed questionnaire on factors related to entrepreneurial environment.

The total early-stage entrepreneurial activity rate (TEA) in Romania in 2012 is 9.22%. In international comparison it indicates a lower level than the average value registered in efficiency-driven economies, however it exceeds the TEA rates measured in countries like Bosnia and Herzegovina, Croatia, Macedonia, Lithuania, and have the same value as in Hungary and Poland.

The share of male nascent entrepreneurs among the adult population increased from 6.90% in 2011 to 7.94% in 2012. The rate of owner-managers of a new business has decreased from 4.51% in 2011 to 3.81% in 2012. The established business ownership rate also decreased from 4.57% in 2011 to 3.87% in 2012.

The male early-stage entrepreneurial activity rate increased from 12.52% in 2011 to 13.17% in 2012, in case of females decreased from 7.33% to 5.34%. The ratio between male and female early-stage entrepreneurial rate increased from 1.7 in 2011 to 2.47 in 2012.

The opportunity-driven early-stage entrepreneurial activity rate increased from 5.68% of the adult population in 2011 to 6.92% in 2012. The necessity-driven nascent entrepreneurial activity rate decreased from 4.09% in 2011 to 2.23% in 2012, increasing the ratio of opportunity to necessity entrepreneurship from 1.39 to 3.10. In Romania 74.2% of the early-stage entrepreneurs are motivated by opportunity, 24.2% by necessity.

In efficiency-driven economies early-stage entrepreneurial activity and established business ownership appears to be more oriented towards consumer-oriented services (54.16%, respectively 48.4%), and less towards extractive sector activities. The share of those early-stage entrepreneurs who have more than 75% foreign clients has grown from 12.96% in 2011 to 13.39% in 2012. 48.43% of early-stage entrepreneurs offer products or services which are new to all or to some of the customers. The proportion of innovativeness in case of the established entrepreneurs is considerably higher in 2012 than it was in the previous years. The level of technology used by early-stage entrepreneurs is newer than the one used by established entrepreneurs. The highest percentage among both early-stage and established entrepreneurs are those with low job expectations (0-5 jobs in the next five years).

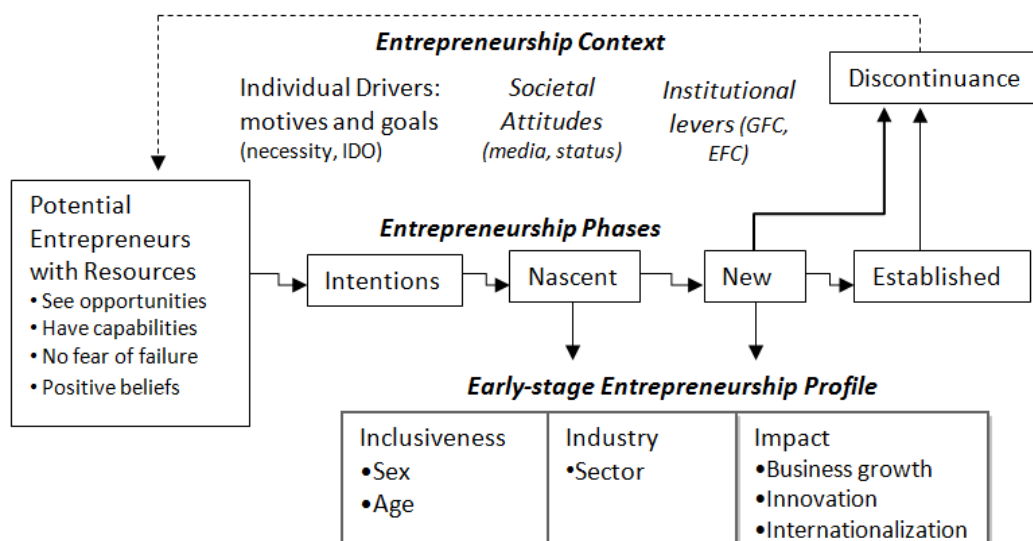
In Romania the three most positive entrepreneurial framework conditions are physical infrastructure, internal market dynamics, and national policy-general policy, while the most negative conditions are primary and secondary education, national policy regulation and finance.

Theoretical aspects of GEM research

The main aim of Global Entrepreneurship Monitor (GEM) research project is to explore and assess the role of entrepreneurship in economic growth, enhancing the national characteristics of the entrepreneurial activity. GEM defines entrepreneurship as any attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals, or an established business (Bosma et al., 2012, p. 9). GEM focuses on the following objectives: to allow for comparison with regard to the level and characteristics of entrepreneurial activity among different economies; to determine the extent to which entrepreneurial activity influences economic growth within individual economies; to identify factors which encourage and/or hinder entrepreneurial activity; to guide the formulation of effective and targeted policies aimed at stimulating entrepreneurship (Xavier et al., 2013, p. 12). GEM, as a research project, which focuses on a major driver of economic growth, on entrepreneurship, admits the widely acknowledged phenomena that entrepreneurship is one of the most important forces shaping the changes in the economic landscape (Matiș et al., 2011, p. 10).

GEM focuses on the behavior of individuals with respect to starting and managing a business. GEM observes the actions of entrepreneurs who are at different stages of the process of creating and sustaining a business. Figure 1 summarizes the entrepreneurship process and the operational definitions of GEM. The entrepreneurial activity is measured across its phases emphasizing the entrepreneurial profile and the entrepreneurship context.

Figure 1 The entrepreneurship process and GEM operational definitions



Source: Kelley et al., 2012, p. 5

The data used in the analyses is gathered annually and is derived from two major sources: Adult Population Survey (APS) and National Experts Survey (NES).



The Adult Population Survey (APS) is a survey of random representative sample of at least 2000 adults, aged between 18-64 years, using a standardized questionnaire developed by the GEM consortium.

The National Experts Survey (NES) provides insights into the entrepreneurial startup environment in each economy with regard to the nine entrepreneurial framework conditions:

- Financing
- Governmental policies
- Governmental programs
- Education and training
- Research and development transfer
- Commercial infrastructure
- Entry regulations
- Physical infrastructure
- Cultural and social norms.

The NES sample comprises a minimum of 36 respondents with four experts drawn from each of the entrepreneurial framework categories. A minimum of 25% in the sample must be entrepreneur or business owner, and 50% must be professional.

The GEM project views entrepreneurship as a process comprising different phases, from intending to start, to just starting, to running new or established enterprises, and even discontinuing a business. This process starts with the involvement of potential entrepreneurs (those individuals who believe they possess the capabilities to start businesses, who see opportunities for entrepreneurship, and who would not be dissuaded from doing so by fear of failure). For some potential entrepreneurs, their intentions to start businesses are underpinned by the perceptions society holds of entrepreneurs, the status these individuals enjoy in their society, and whether the media positively represents entrepreneurs (Xavier et al., 2013, p. 13).

The next phase is that combines the stage in advance of the start of a new firm (nascent entrepreneurship) and the stage directly after the start of a new firm (owning-managing a new firm). Taken together this phase is denoted as total early-stage entrepreneurial activity (TEA). In addition, individuals with entrepreneurial attitudes - potentially leading to entrepreneurial activity - and individuals involved as owner-managers in established firms are identified. In addition to the above phases, entrepreneurial attitudes as potential prerequisites of entrepreneurial activity are identified. Discontinuation of activities in owning and managing a business are also important aspects of entrepreneurship. GEM collects information on the entrepreneurship context, such as goals and motivations or the social attitudes which characterizes the population's perceptions towards entrepreneurship (Bosma et al., 2012, p. 8-9).

The GEM data makes researchers able to study three important dimensions of the entrepreneurship: the entrepreneurial activity measures the involvement of the individuals in different phases of the entrepreneurship, the entrepreneurial attitudes and perceptions supply information on how the social environment supports entrepreneurial activities and the

entrepreneurial aspirations, which indicate the impact of the entrepreneurial behavior (Bosma et al., 2012, p. 15).

According to these, GEM uses the following group of terms in assessing the entrepreneurial activity of the adult population.

Entrepreneurial activity is seen as a process. GEM measures entrepreneurial intentions, nascent, new and established business activity and business discontinuation activity, according to entrepreneurship phases, defined as follows:

- *Potential entrepreneurs* are those individuals aged between 18-64 years who believe they possess the capabilities to start businesses, who see opportunities for entrepreneurship, and who would not be dissuaded from doing so by fear of failure.
- *Intentioned entrepreneurs* are those individuals aged between 18-64 years who intend to start a business within three years.
- *Nascent entrepreneurs* are those individuals aged between 18-64 years who are actively planning a new venture. These entrepreneurs have done something during the previous 12 months to help start a new business, that he or she will at least partly own. Activities such as organizing the start-up team, looking for equipment, saving money for the start-up or writing a business plan would all be considered as active commitments to starting a business. This business has not paid salaries, wages or any other payments to the owners for more than three months.
- *Young business entrepreneurs* or *new business owners* are those entrepreneurs who at least partly own and manage a new business that is between 4 and 42 months old and have not paid salaries for longer than this period. These new ventures are in the first 42 month after the new venture has been set up.
- *Early-stage entrepreneurs* (TEA) refers to the early-stage entrepreneurial activity among the adult population aged between 18-64 years, identified as nascent or young business entrepreneurs. In those cases when the respondent is involved both as nascent and young business entrepreneur then the respondent is counted only once as a nascent entrepreneur.
- *Necessity-driven entrepreneurial activity rate* is the percentage of those involved in early-stage entrepreneurial activities who are involved in entrepreneurship because they had no other option for work.
- *Improvement-driven opportunity entrepreneurial activity rate* is the percentage of those involved in early-stage entrepreneurial activity who claim to be driven by opportunity as opposed to finding no other option for work and who indicate the main driver for being involved in this opportunity is being independent or increasing their income, rather than just maintaining their income.
- *Established business owners* (EB) are those entrepreneurs who have set up businesses that they have continued to own and manage and which had paid wages and salaries for more than 42 months.



- *Business discontinuation rate* is the percentage of population aged between 18-64 years who have, in the past 12 months, discontinued a business, either by selling, shutting down, or otherwise discontinuing an owner/management relationship with the business¹ (Kelley et al., 2011, p. 64).

Entrepreneurial attitudes and perceptions express the general feelings of the population towards entrepreneurs and entrepreneurship, considering the entrepreneurship context.

- *Perceived opportunities* - the percentage of 18-64 population who see good opportunities to start a business in the area where they live in the next six months.
- *Perceived capabilities* - the percentage of 18-64 population who believe to have the required skills and knowledge to start a business.
- *Fear of failure rate* - the percentage of 18-64 population with positive perceived opportunities who indicate that fear of failure would prevent them from setting up a business.
- *Entrepreneurship as desirable career choice* - percentage of 18-64 population who agree with the statement that in their country most people consider starting a business as a desirable career choice.
- *High status successful entrepreneurship* - the percentage of 18-64 population who agree with the statement that in their country successful entrepreneurs receive high status.
- *Media attention for entrepreneurship* - percentage of 18-64 population who agree with the statement that in their country they will often see stories in the public media about successful new businesses (Kelley et al., 2011, p. 63).

Entrepreneurial aspirations reflect the qualitative nature of entrepreneurial activity. They can significantly affect the economic impact of entrepreneurial activities.

- *High-growth expectation early-stage entrepreneurial activity* – percentage of 18-64 population who are either a nascent entrepreneur or owner-manager of a new business and expect to employ at least 20 employees five years from now.
- *New product-market oriented early-stage entrepreneurial activity* – percentage of early-stage entrepreneurs who indicate that their product or service is new to at least some customers and indicate that not many businesses offer the same product or service.
- *International orientation early-stage entrepreneurial activity* – percentage of early-stage entrepreneurs with more than 25% of the customers coming from other countries (Kelley et al., 2011, p. 64).

The results for Romania presented in this report are based on the GEM research components, the Adult Population Survey (APS) and the National Expert Survey (NES) database. The APS database

¹ It is not a measure of business failure rate.

helps us to estimate entrepreneurial attitudes, perceptions, activity and aspirations of the adult population. The data are collected from a representative sample of at least 2.000 adults, from all geographic regions of the country, using the GEM APS standard questionnaire and the GEM survey methodology under the supervision of the GEM Coordination Team. This methodology standardization allows the international comparability of the results (Bosma et al., 2012, p. 206-213). In 2012 in Romania 2004 of APS questionnaires were applied via phone according to GEM methodology standards to randomly chosen adult individuals in a nationally representative sample, stratified by age, geographical region and status of the locality they live in.

In 2012 the project included 69 countries, with more than 198,000 individuals being interviewed worldwide, on basis of nationally representative samples. Xavier et al. (2013, p. 6) indicated that based on this survey, this group of economies represented an estimated 74% of the world's population, and 87% of the world's GDP.

The countries participating in 2012 in GEM research program are grouped into three stages of economic development: factor-driven economies, efficiency-driven economies and innovation-driven economies, according to The Global Competitiveness Report of the World Economic Forum. Two criteria are used to allocate countries into stages of development, the level of GDP per capita at market exchange rates and the share of mineral goods in total exports (Schwab, Sala-i-Martin, 2012, p. 9). According to this, Romania is located in the group of the efficiency-driven economies. The following table represents the GEM participating countries in 2012 within these economic development stages.

Table 1 GEM 2012 countries grouped by stages of economic development

Factor-Driven Economies
Algeria, Angola, Botswana, Egypt, Ethiopia, Ghana, Iran, Malawi, Nigeria, Pakistan, Palestine, Uganda, Zambia
Efficiency-Driven Economies
Argentina, Barbados, Bosnia and Herzegovina, Brazil, Chile, China, Colombia, Costa Rica, Croatia, Ecuador, El Salvador, Estonia, Hungary, Latvia, Lithuania, Macedonia, Malaysia, Mexico, Namibia, Panama, Peru, Poland, Romania , Russia, South Africa, Thailand, Trinidad and Tobago, Tunisia, Turkey, Uruguay
Innovation-Driven Economies
Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Japan, Netherlands, Norway, Portugal, Republic of Korea, Slovakia, Slovenia, Singapore, Spain, Sweden, Switzerland, Taiwan, United Kingdom, United States of America

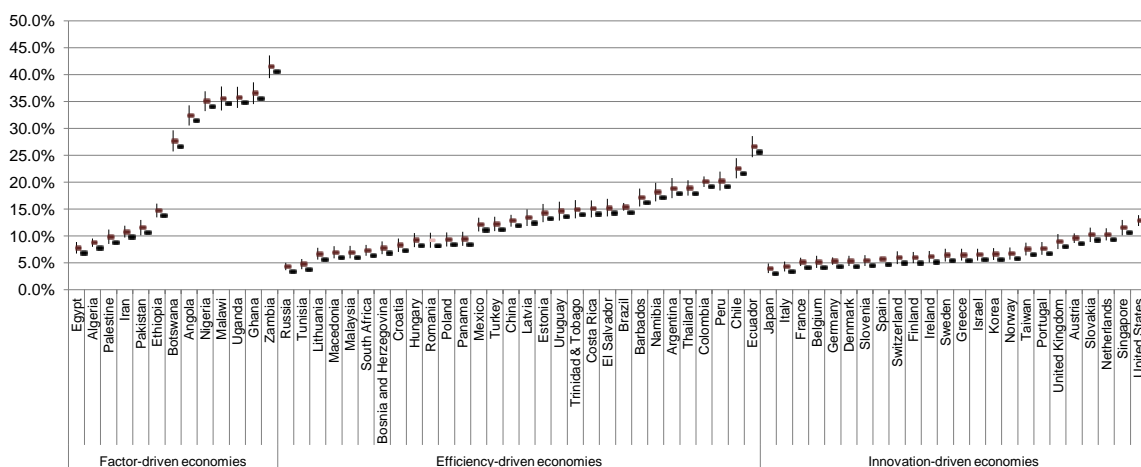
Source: Xavier et al., 2013, p. 19.

Overview on the Romanian entrepreneurship

Figure 2 shows TEA rates across the participating economies organized into the three economic levels and exhibited within each economic development level from the lowest to the highest TEA rates. In economies with low GDP per capita, TEA rates tend to be high with a relatively high proportion of necessity-motivated entrepreneurship. As per capita income increases, larger established firms play an increasingly important role in the economy. Economies with high GDP per capita show lower levels of entrepreneurship, but a higher proportion of those with opportunity motivation (Xavier et al., 2013, p. 26).

The Romanian early-stage entrepreneurial activity rate in international comparison indicates a lower level than the average value registered in efficiency-driven economies, however it exceeds the TEA rates measured in countries like Bosnia and Herzegovina, Croatia, Macedonia, Lithuania, and have the same value as in Hungary and Poland (for further details see Appendix 1).

Figure 2 Total early-stage entrepreneurial activity rates for participating countries in 2012, by phase of economic development



Source: Xavier et al., 2013, p. 26

In global view we can see at Table 2 that Romania's entrepreneurial position is better than in 2010, but worse than in 2011 according to the total early-stage entrepreneurial activity rate (38th among 67 countries). This fact remains true if we analyze only the efficiency-driven economies (22nd among 30 countries). The opportunity-driven early-stage entrepreneurial activity rate shows a relative improvement only regarding the efficiency-driven economies, Romania's place is 20th. Romania's worst position is taken in case of established entrepreneurial activity rate (52nd among 67 countries in global view and the 24th among the efficiency-driven economies).

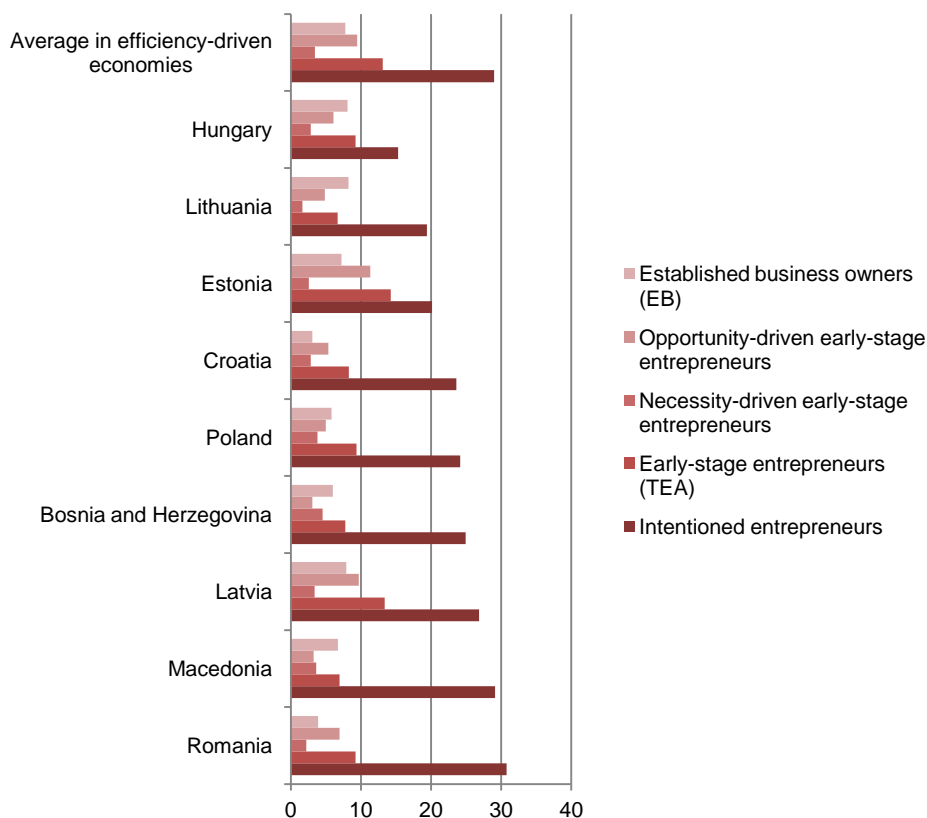
Table 2 Romanian entrepreneurship ranked by entrepreneurial activity in case of efficiency-driven economies and in global view, 2008-2012

	Global rank					Efficiency-driven country rank				
	2008 (43)	2009 (54)	2010 (59)	2011 (54)	2012 (67)	2008 (17)	2009 (22)	2010 (24)	2011 (24)	2012 (30)
Potential entrepreneurs	28	42	39	17	20	14	20	21	11	11
Nascent entrepreneurs	37	41	40	25	34	16	18	21	17	20
Young business entrepreneurs	41	41	58	20	38	17	19	24	15	21
Early-stage entrepreneurs	40	42	53	23	38	16	18	23	16	22
Necessity-driven early-stage entrepreneurs	27	34	40	15	39	15	20	22	10	23
Opportunity-driven early-stage entrepreneurs	43	48	53	29	33	17	19	23	17	20
Established business owners	42	46	56	41	52	16	20	22	18	24
Discontinuation rate	25	20	34	22	31	12	12	17	15	18

Source: Own calculations based on GEM, Adult Population Survey, 2008 – 2012

While TEA rates were typically higher than established business rates in factor-driven economies, the gap narrows in the innovation-driven economies. In efficiency-driven economies on average the TEA rates are more than one and a half times higher than the established entrepreneurial activity rates. Necessity-driven motives tend to be the highest in the factor-driven economies. With greater economic development levels, the proportion of entrepreneurs with necessity motives generally declines, while improvement-driven opportunity increases. As it can be seen at 0the proportion of those who intend to start a business in the next three years is the highest in Romania, among the efficiency-driven economies from CEE. In these countries the highest rate of necessity-motivated early-stage entrepreneurs is measured in Bosnia and Herzegovina, while the lowest in Lithuania. The highest percentage of opportunity-driven entrepreneurs is counted in Estonia, followed by Latvia, these rates are above the average value measured in efficiency-driven economies.

Figure 3 Entrepreneurial activity rates in efficiency-driven economies from Central and Eastern Europe, 2012



Source: GEM, Adult Population Survey, 2012

In 0can be seen the development of the main entrepreneurial activity rates in Romania between 2007 and 2012. On average there are no major differences between the rates reached in 2011 and in 2012. Nevertheless, there are increased rates in case of intended entrepreneurs, opportunity-driven early-stage entrepreneurs, which was due to the increase of male entrepreneurs in both cases. The most relevant decrease is measured in case of necessity-driven early-stage entrepreneurs, which results a better quality of early-stage entrepreneurial activity, since the relative prevalence of opportunity-motivated versus necessity-motivated entrepreneurial activity increase. The young business entrepreneurs' rate decreased from 4.51% in 2011 to 3.81% in 2012. There is no relevant difference in the business discontinuation rate measured in 2011 and in 2012.

Table 3 Entrepreneurial activity rates in Romania between 2007 and 2012 (%)

Entrepreneurial activity rates		2007	2008	2009	2010	2011	2012
Potential entrepreneurs	Total	13.6	11.5	9.4	10.65	27.71	30.76
	Male	18.55	15.55	11.4	13.6	33.51	39.78
	Female	8.83	7.86	7.44	6.7	22.18	22.11
Nascent entrepreneurs	Total	2.90	2.54	2.79	3.2	5.56	5.51
	Male	3.51	3.62	4.54	4.4	6.90	7.94
	Female	2.29	1.47	1.07	1.7	4.21	3.13
Young business entrepreneurs	Total	1.30	1.56	2.30	1.09	4.51	3.81
	Male	1.44	2.42	2.50	0.8	5.85	5.46
	Female	1.19	0.71	2.09	1.5	3.30	2.21
Early-stage entrepreneurs (TEA)	Total	4.02	3.98	5.02	4.29	9.89	9.21
	Male	4.95	5.89	6.91	5.13	12.52	13.17
	Female	3.09	2.10	3.17	3.19	7.33	5.34
Necessity-driven early-stage entrepreneurs	Total	0.56	1.37	1.71	1.27	4.09	2.23
	Male	0.73	1.82	2.60	1.50	5.28	3.79
	Female	0.39	0.92	0.83	0.98	2.92	0.70
Opportunity-driven early-stage entrepreneurs	Total	2.68	2.12	2.76	2.94	5.68	6.92
	Male	3.52	3.36	3.60	3.50	7.05	9.25
	Female	1.85	0.89	1.93	2.21	4.35	4.65
Established business owners (EB)	Total	2.50	2.07	3.38	2.08	4.57	3.87
	Male	3.34	2.94	3.40	2.08	6.28	5.93
	Female	1.70	1.22	3.36	2.08	2.90	1.86
Discontinuation rate (business did not continue)	Total	2.08	2.22	2.87	2.00	3.90	3.76
	Male	2.97	3.07	2.62	2.8	4.23	4.05
	Female	1.19	1.38	3.06	1.0	3.65	3.49

Source: GEM, Adult Population Survey, Romania, 2007 - 2012

Profile of Romanian entrepreneurs

The Romanian intended entrepreneurs' profile in 2012 indicates that the highest share of them is young, male with some secondary degree, situated in the upper 33% regarding household income according to Table 4. The distribution of intended entrepreneurs by age categories didn't show significant changes in the analyzed period. More than half of the intended entrepreneurs are aged between 18-34 years, while less than one quarter are older than 45 years. The highest share of intended entrepreneurs by household income can be found among those who are situated in the upper 33%, even though their share decreased from 57.1% in 2007 to 44.8% in 2012. According to our findings the intended entrepreneurs with some secondary degree represent 36.1% in 2012, although their share in 2007 was only 2.7%. On the other hand, the share of those who obtained university degree decreased from 41.1% in 2007 to 4.4% in 2012.

Table 4 Population by age categories, household income categories and education level within intended entrepreneurial activity in Romania, 2007-2012 (%)

		2007	2008	2009	2010	2011	2012
Age categories	18-24 years	24.2	22.0	26.4	29.0	28.9	24.4
	25-34 years	30.5	36.1	31.1	31.2	32.1	31.4
	35-44 years	21.2	21.4	22.0	15.2	16.7	19.4
	45-54 years	18.3	15.5	17.5	19.9	15.9	17.0
	55-64 years	5.8	5.0	3.1	4.8	6.5	7.8
Gender	Male	67.0	65.5	59.9	73.1	58.8	63.3
	Female	33.0	34.5	40.1	26.9	41.2	36.7
Household income	Lowest 33%	6.3	15.9	17.4	22.2	16.2	19.5
	Middle 33%	36.6	24.2	18.0	22.0	33.9	35.7
	Upper 33%	57.1	59.8	64.6	55.9	49.9	44.8
Educational attainment	Some secondary	2.7	26.8	3.3	18.3	9.2	36.1
	Secondary degree	4.2	34.3	50.8	49.3	48.9	34.7
	Post secondary	52.1	14.2	38.1	27.5	36.4	24.8
	Graduate expectation	41.1	24.7	7.8	4.8	5.4	4.4

Source: GEM, Adult Population Survey, Romania, 2007 - 2012

The early-stage entrepreneurial activity increased in case of younger entrepreneurs in 2012, while in case of older entrepreneurs (above 45 years old) the share of early-stage entrepreneurs decreased. The early-stage entrepreneurs aged between 25-34 years are likely to have had some time to develop their skills and knowledge through higher education and work experience. This fact can be seen at Table 5 since the share of those early-stage entrepreneurs who have higher educational level increased considerably. The early-stage entrepreneurial activity remains higher among males

than among females, it increased only in case of males. The share of early-stage entrepreneurs increased in all household income categories, but the most spectacular increase is registered among those who are in the upper 33%, from 11.13% in 2011 to 18.00% in 2012. The highest early-stage entrepreneurial activity rate is registered among those 18-64 year olds who graduated a university, 29.31% from adult population with graduate experience was involved in early-stage entrepreneurial activity in 2012.

Table 5 Population by age categories, household income categories and education level involved in TEA in Romania, 2007-2012 (%)

Variable	Categories	2007	2008	2009	2010	2011	2012
Age	18-24	1.09	2.16	6.60	4.11	7.87	10.14
	25-34	7.54	7.10	6.74	7.24	14.64	13.23
	35-44	4.07	4.42	6.15	4.24	9.39	10.25
	45-54	3.69	3.33	4.39	2.84	10.20	7.80
	55-64	1.60	1.15	0.34	1.64	4.55	2.58
Gender	Male	4.95	5.89	6.91	5.13	12.52	13.14
	Female	3.09	2.10	3.17	3.19	7.33	5.34
Household income categories	Lowest 33%	0.88	0.80	0.64	0.58	2.21	3.29
	Middle 33%	1.18	1.23	0.98	1.47	5.39	7.80
	Upper 33%	3.88	4.14	3.34	3.55	11.13	18.00
Education level	Some secondary degree	0.00	3.35	0.98	3.28	2.66	6.53
	Secondary degree	1.06	3.04	4.26	3.21	9.28	8.39
	Post-secondary degree	3.10	2.05	9.23	6.45	12.66	13.08
	Graduate experience	8.15	6.98	8.80	12.94	14.84	29.31

Source: GEM, Adult Population Survey, Romania, 2007 – 2012

The established business owners' rate reached the highest level in the last six years in the 45-54 age group in 2012, where can be found the highest share of established entrepreneurs. As in previous years, in 2012 the share of established male entrepreneurs is higher than the share of female entrepreneurs. The share of established entrepreneurs decreased only in case of lowest 33% of household income, but the most important increase is in the upper 33%, from 5.55% in 2011 to 7.73% in 2012. The highest share of established entrepreneurs by education level categories can be identified among those who have a university degree, although this share decreased from 7.91% in 2011 to 6.9% in 2012.

Table 6 Population by age categories, household income categories and education level involved in established entrepreneurship in Romania, 2007-2012 (%)

Variable	Categories	2007	2008	2009	2010	2011	2012
Age	18-24	0.00	1.12	1.32	0.67	1.36	1.01
	25-34	1.74	1.17	3.45	1.73	4.95	4.93
	35-44	5.54	3.34	3.59	2.16	4.08	2.80
	45-54	1.87	2.12	4.85	2.65	5.58	5.91
	55-64	2.85	2.57	3.19	3.29	6.70	3.70
Gender	Male	3.34	2.94	3.40	2.08	6.28	5.93
	Female	1.70	1.22	3.36	2.08	2.90	1.86
Household income categories	Lowest 33%	0.28	0.48	0.67	0.09	1.30	1.23
	Middle 33%	0.63	1.19	0.35	0.58	2.10	2.92
	Upper 33%	2.25	1.27	2.00	1.69	5.55	7.73
Education level	Some secondary degree	1.18	1.54	1.39	0.89	0.50	1.82
	Secondary degree	0.00	2.12	2.72	1.13	4.75	5.48
	Post-secondary degree	2.07	3.16	6.07	5.26	5.31	4.94
	Graduate experience	4.57	1.74	4.77	5.38	7.91	6.90

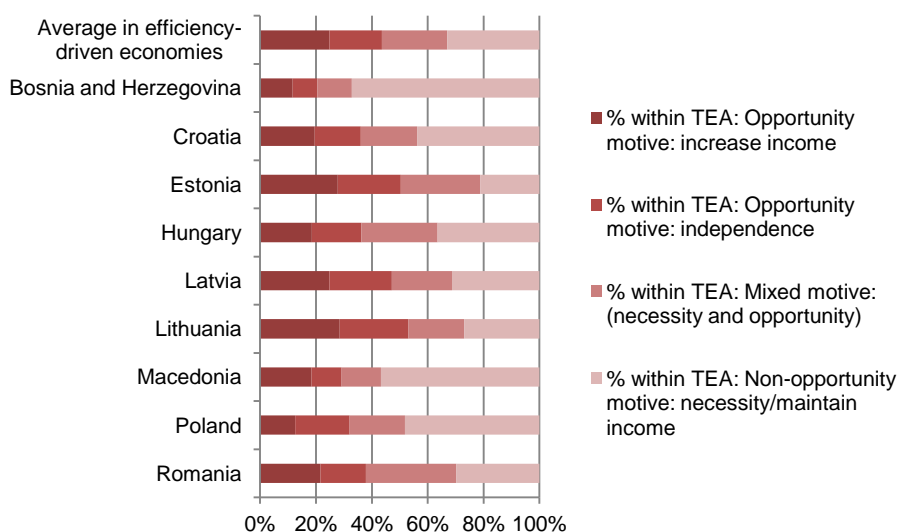
Source: GEM, Adult Population Survey, Romania, 2007 – 2012

Entrepreneurial motivation

GEM recognizes that entrepreneurs may have different motivations for starting a business: they may be pushed or pulled in entrepreneurship. Some people may be pushed into starting a business because they have no other work options and need a source of income. GEM classifies these entrepreneurs as necessity-driven. Others enter in this activity primarily to pursue an opportunity, they are pulled into entrepreneurship by the prospect of opportunity. GEM identifies these as opportunity-driven entrepreneurs; furthermore, these individuals may desire greater independence in their work or seek to maintain or improve their income (Xavier et al., 2013, p. 28).

The average value of improvement-driven opportunity early-stage entrepreneurial rate (those early-stage entrepreneurs who indicated that the motive for starting a business was the desire for greater independence or to increase income) is 43.65% in efficiency-driven economies. Among countries from CEE rates above average are measured in case of Lithuania, Estonia and Latvia. In case of Romania 37.92% of early-stage entrepreneurs are motivated by increasing income and greater independence.

Figure 4 Motivations of early-stage entrepreneurs in efficiency-driven economies from CEE, 2012



Source: GEM, Adult Population Survey, 2012

The distribution of the Romanian early-stage entrepreneurs by motivation is presented in 0. 0Almost three quarters of early-stage entrepreneurs (74.2%) are opportunity-motivated. The share of necessity-motivated early-stage entrepreneurs decreased considerably in 2012.

Table 7 Motivations of early-stage entrepreneurs in Romania, 2007-2012 (%)

Motives	2007	2008	2009	2010	2011	2012
Opportunity motive	66.7	53.2	55.0	67.3	57.5	74.2
Necessity motive	13.8	34.3	34.0	31.1	41.3	24.2
Other motive	19.5	12.5	11.0	1.6	1.2	0.6

Source: GEM, Adult Population Survey, Romania, 2007 - 2012

The share of those opportunity motivated entrepreneurs who aim for independence decreased from 48.17% in 2007 to 38.5% in 2012, meanwhile the share of those who wish to maintain their income increased from 0.1% to 14.8%. The main reason of these entrepreneurs to start and run their business remains the income increase (46.7%). We can observe at Table 8 that independence starts to play an important role again in the motivation of early-stage entrepreneurs.

Table 8 Opportunity motivated early-stage entrepreneurs by motives in Romania, 2007-2012 (%)

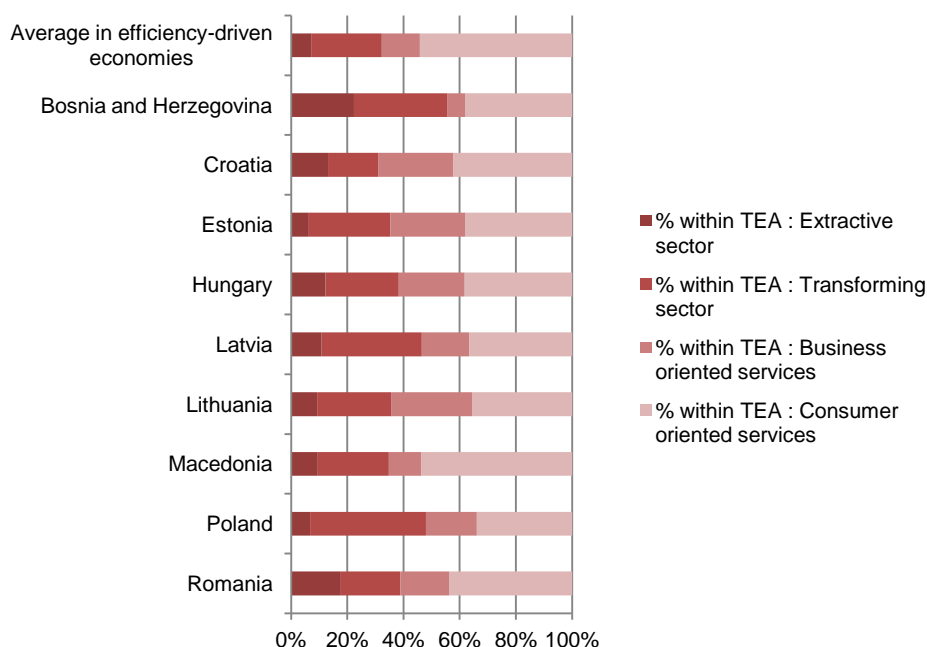
Opportunity type	2007	2008	2009	2010	2011	2012
Independence	48.17	34.78	42.59	22.0	26.0	38.5
Increase income	51.73	53.31	52.46	75.4	59.1	46.7
Maintain income	0.1	11.91	4.95	2.6	14.9	14.8

Source: GEM, Adult Population Survey, Romania, 2007-2012

Characteristics of the entrepreneurial activities

In efficiency-driven economies early-stage entrepreneurial activity and established business ownership appears to be more oriented towards consumer-oriented services (54.16%, respectively 48.4%), and less towards extractive sector activities. Among the CEE countries from efficiency-driven economies (Figure 5) in case of Poland the share of early-stage entrepreneurs from the transforming sector is higher than those from the consumer-oriented services, while in case of Latvia these two shares are almost equal.

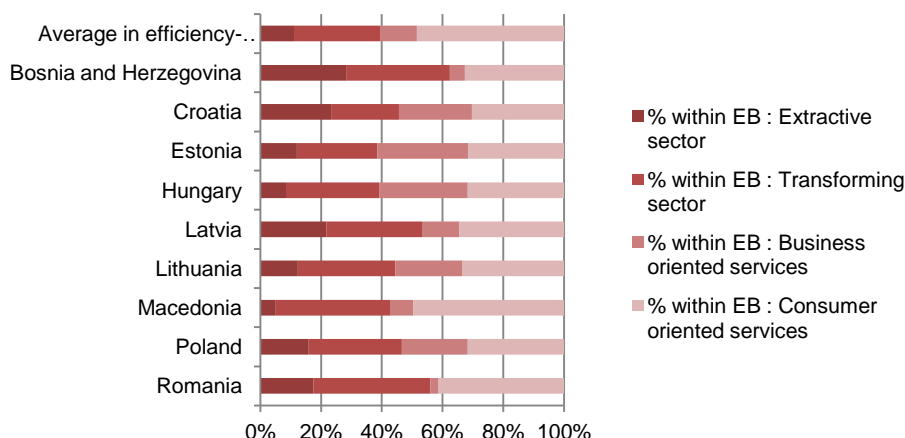
Figure 5 Distribution of early-stage entrepreneurs (TEA) by sectors in efficiency-driven economies from CEE, 2012



Source: GEM, Adult Population Survey, 2012

In case of established entrepreneurs the share of consumer-oriented services is higher in each CEE country, despite of Bosnia and Herzegovina, where the share of transforming sector is slightly higher. Oshows that in Romania the share of business-oriented services is significantly lower than the average measured in the efficiency-driven economies.

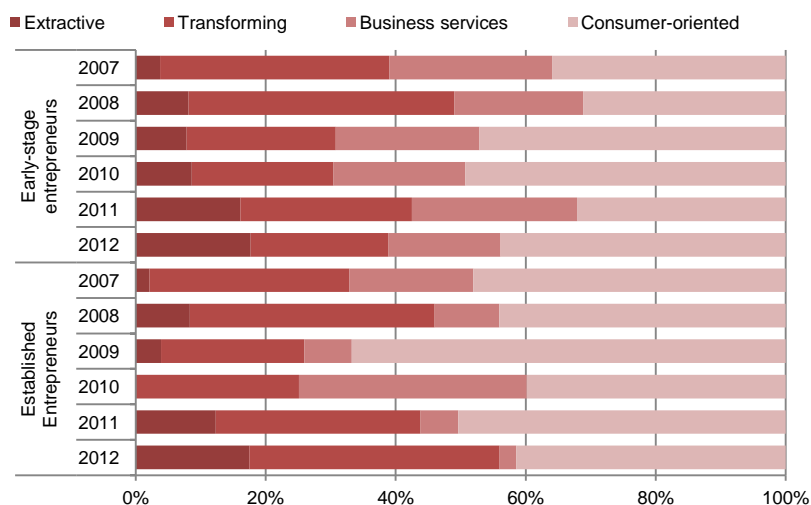
Figure 6 Distribution of established business owners (EB) by sectors in efficiency-driven economies from CEE, 2012



Source: GEM, Adult Population Survey, 2012

The highest rates are reached in consumer-oriented services sector in case of both entrepreneurial stages in Romania, too, as it can be seen in Figure 7 followed by the rates reached in the transforming sector in 2012. The rate measured in the extractive sector in case of early-stage entrepreneurs shows the most relevant growth in the analyzed period (from 3.75% in 2007 to 17.67% in 2012). The rate of consumer-oriented established entrepreneurs decreased from 50.38% in 2011 to 40.46% in 2012, meanwhile the orientation toward business services declined considerably compared to the previous years.

Figure 7 Early-stage entrepreneurs (TEA) and established business owners (EB) distribution by sectors in Romania in 2007-2012 (%)

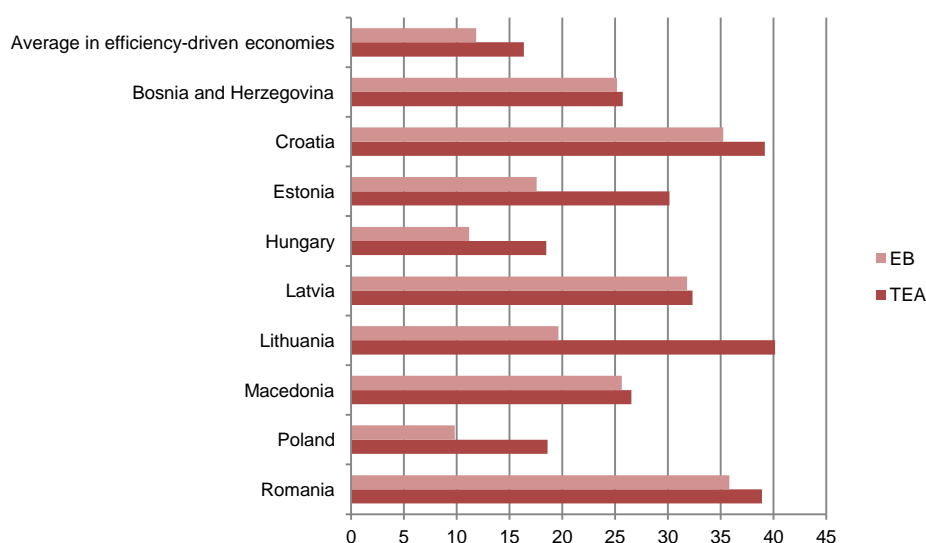


Source: GEM, Adult Population Survey, Romania, 2007 - 2012

The international orientation of early-stage entrepreneurs has been studied with export intensity analysis, by the estimation of foreign clients' share. This measure assesses the extent to which entrepreneurs sell to costumers outside their economies (Kelley et al., 2012, p. 21). Among the CEE countries from the efficiency-driven economies the highest percentages of early-stage entrepreneurs are measured in Lithuania, Croatia and in Romania, as it can be seen in Figure 8 , where almost half of the entrepreneurs had more than a quarter of their clients from abroad in 2012.

The international orientation of established entrepreneurs is lower in each CEE country from the efficiency-driven economies than in case of early-stage entrepreneurs. The highest values were measured in Romania and in Croatia.

Figure 8 Percentage of early-stage entrepreneurs and established business owners with more than 25% international customers in efficiency-driven economies from CEE, 2012 (%)

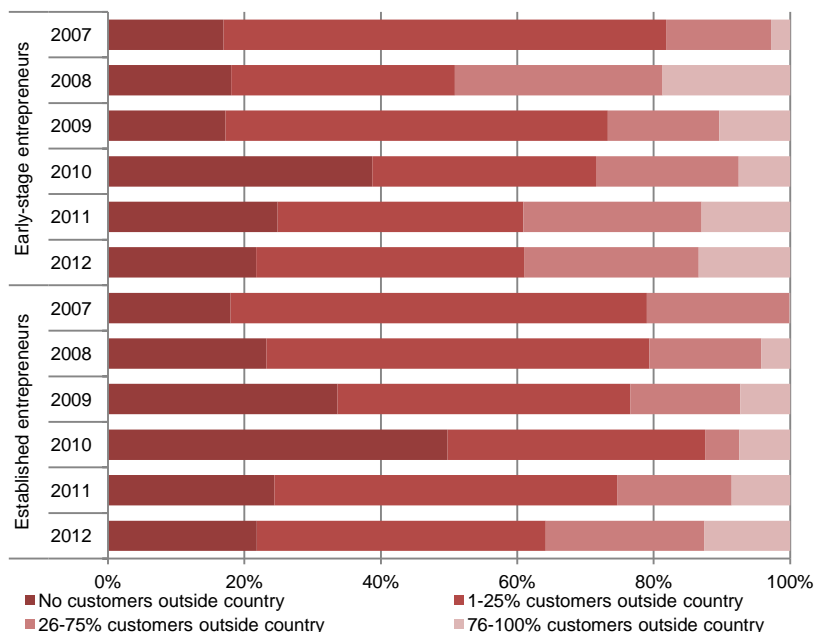


Source: GEM, Adult Population Survey, 2012

As it can be seen in Figure 9 , in 2012 38.9% of the early-stage entrepreneurs had more than 25% foreign clients, considerably higher than the value measured in 2010 (28.47%), but lower than the one measured in 2011 (39.07%). In case of established entrepreneurs the percentage of those who have more than a quarter foreign customers increased considerably compared to 2010 from 12.44% to 35.82% in 2012. The comparison between early-stage entrepreneurs' and established business owner-managers' structure by share of foreign clients indicate that the internationalization of the early-stage entrepreneurs remained higher in all the six years.

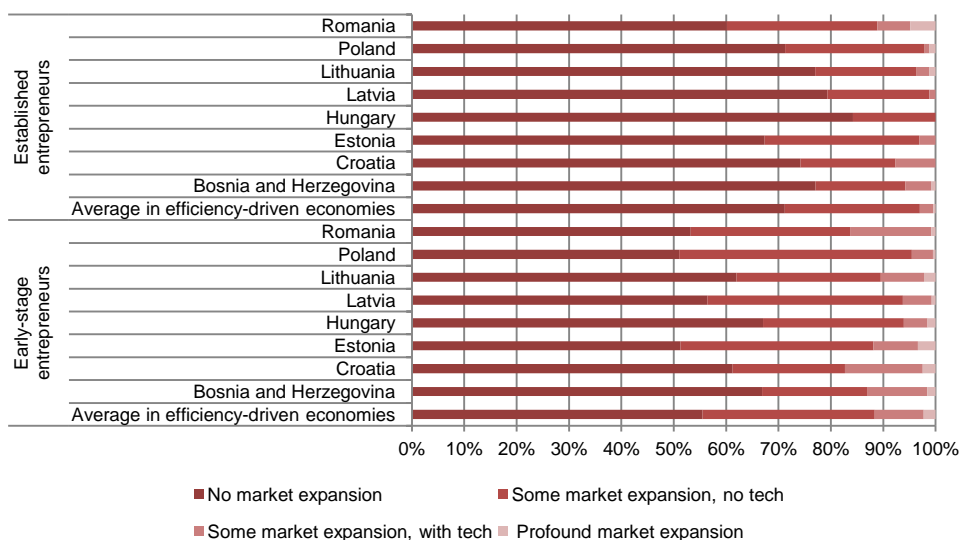
The share of those early-stage entrepreneurs who have more than 75% foreign clients has grown from 12.96% in 2011 to 13.39% in 2012. We can conclude a higher exclusive international orientation compared to the established business owner-managers in the whole analyzed period, even if this latter share constantly increased (up to 12.55% in 2012).

Figure 9 Percentage of early-stage entrepreneurs and established business owners with more than 25% international customers in Romania, 2007-2012 (%)



Source: GEM, Adult Population Survey, Romania, 2007-2012

Figure 10 Early-stage entrepreneurs and established business owners by market expansion expectation in efficiency-driven economies from CEE, 2012 (%)

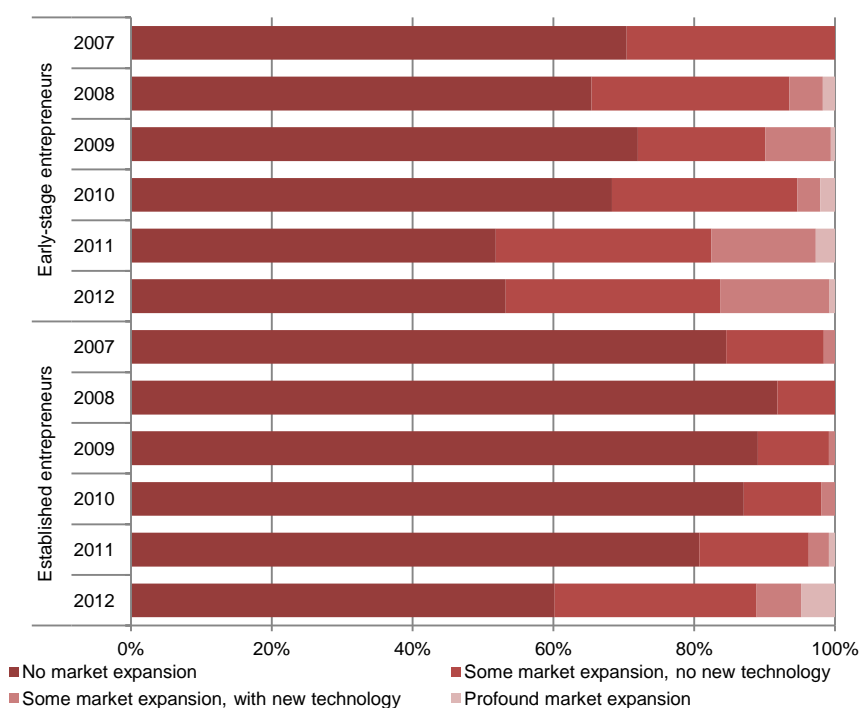


Source: GEM, Adult Population Survey, 2012

If we analyze the market expansion expectations of early-stage entrepreneurs and established business owner-managers in efficiency-driven economies, we can conclude that average market expansion expectations of early-stage entrepreneurs are higher than the average in case of established entrepreneurs (Figure 10). In case of early-stage entrepreneurs the share of those without market expansion expectations is the highest in case of Hungary, followed by Bosnia and Herzegovina among CEE countries, this share in case of established entrepreneurs is the highest also in case of Hungary, followed by Latvia. The share of entrepreneurs who expect profound market expansion is very low in case of early-stage entrepreneurs, as well as in case of established entrepreneurs in the CEE countries. We can be found the lowest no market expansion expectation rate in case of established entrepreneurs in Romania among CEE countries.

The difference between the distribution of market expansion expectations of early-stage entrepreneurs (shown in Figure 11 in 2011 and 2012 is not significant. Meantime the share of those established entrepreneurs who expect no market expansion is the lowest in 2012. The share of those who plan market expansion reached 46.77% in case of early-stage entrepreneurs and 39.85% in case of established entrepreneurs in 2012.

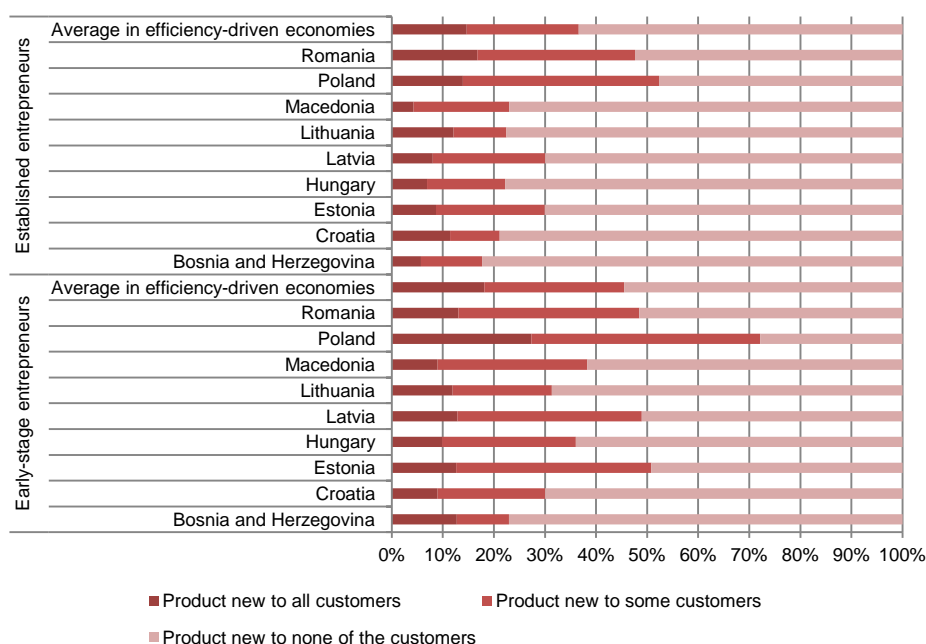
Figure 11 Early-stage entrepreneurs and established business owners by market expansion expectation in Romania, 2007-2012 (%)



Source: GEM, Adult Population Survey, Romania, 2007-2012

GEM evaluates innovation from the perspective of the market and industry. This measure represents the perceived extent to which an entrepreneur's product or service is new to some or all customers and whether few or no other businesses offer the same product (Bosma et al., 2012, p. 38). Innovativeness increases in average as economic development raises, therefore the highest innovativeness rates we can find in innovation driven economies. The percentage of those entrepreneurs who consider that their product or service is new to some or all customers is higher in case of early-stage entrepreneurs than in case of established entrepreneurs in efficiency-driven economies (Figure 12). Among the CEE countries Poland has the highest share of early-stage entrepreneurs who consider that their product or services is new to all customers, while the lowest share we can find in Bosnia and Herzegovina. In case of established entrepreneurs the highest share is reached in Romania, while the lowest in Macedonia among the CEE countries.

Figure 12 Product novelty within early-stage entrepreneurs and established business owners in efficiency-driven economies from CEE, 2012 (%)

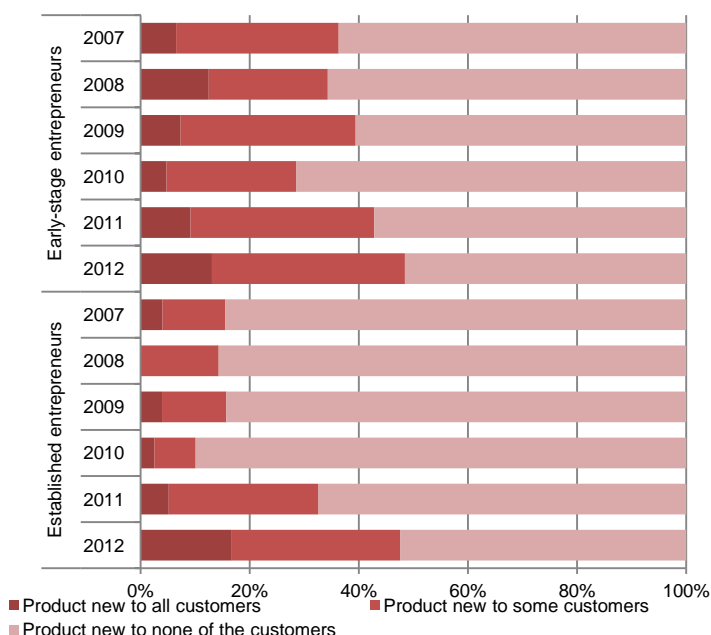


Source: GEM, Adult Population Survey, 2012

In Romania the percentage of those entrepreneurs who consider that their product or service is new to some or all customers increased in the analyzed period (2007-2012). The early-stage entrepreneurs indicate approximately the same proportion of innovativeness than the established entrepreneurs. 48.43% of early-stage entrepreneurs offer products or services which are new to all

or to some of the customers (0). The proportion of innovativeness in case of the established entrepreneurs is considerably higher in 2012 than it was in the previous years.

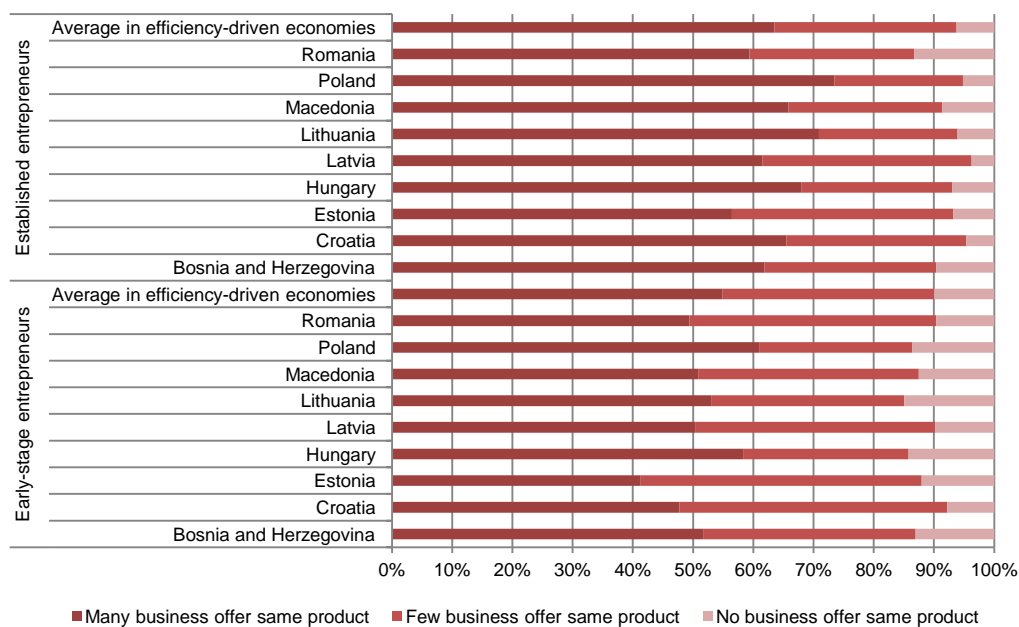
Figure 13 Product novelty within early-stage entrepreneurs and established business owners in Romania, 2007-2012 (%)



Source: GEM, Adult Population Survey, Romania, 2007-2012

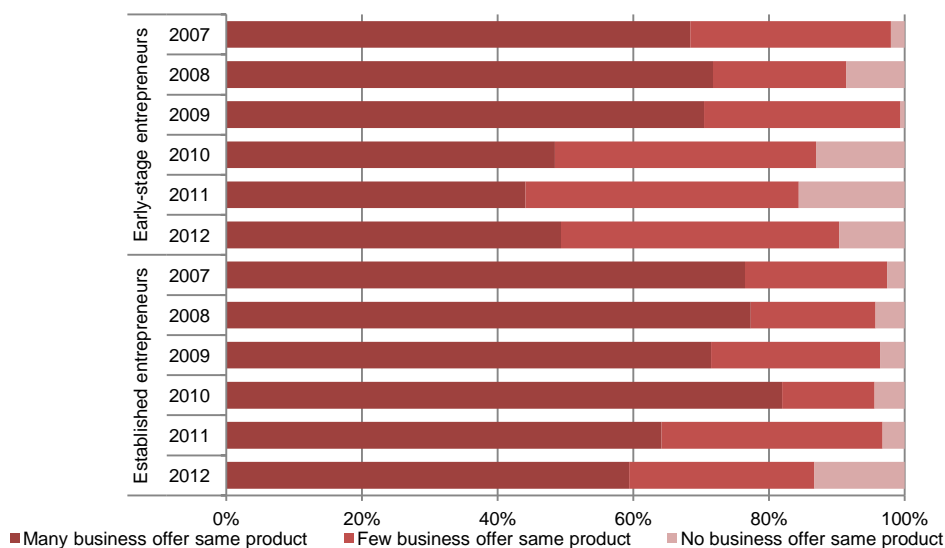
The degree of competition in average is higher in case of established entrepreneurs in the efficiency-driven economies than in case of early-stage entrepreneurs, as it can be seen in 0. In case of early-stage entrepreneurs the degree of competition is highest in Poland (60.97% of early-stage entrepreneurs consider that many businesses offer the same product or services) and lowest in Estonia (41.31%), meanwhile also in Poland is reached the third highest rate of those early-stage entrepreneurs who indicated that no business offer the same product or services, have no competitors. In Romania the share of those entrepreneurs who considers that they have no competitors (9.64%) is around the average value measured in efficiency-driven economies (9.97%). In case of established entrepreneurs also in Poland is measured the highest rate of those established entrepreneurs who consider that many businesses offer the same product or services (73.45%), while the highest share of those who indicated that they have no competitors is reached in Romania (13.28%).

Figure 14 Degree of competition within early-stage entrepreneurs and established business owners in efficiency-driven economies from CEE, 2012 (%)



Source: GEM, Adult Population Survey, 2012

Figure 15 Degree of competition within early-stage entrepreneurs and established business owners in Romania, 2007-2012 (%)

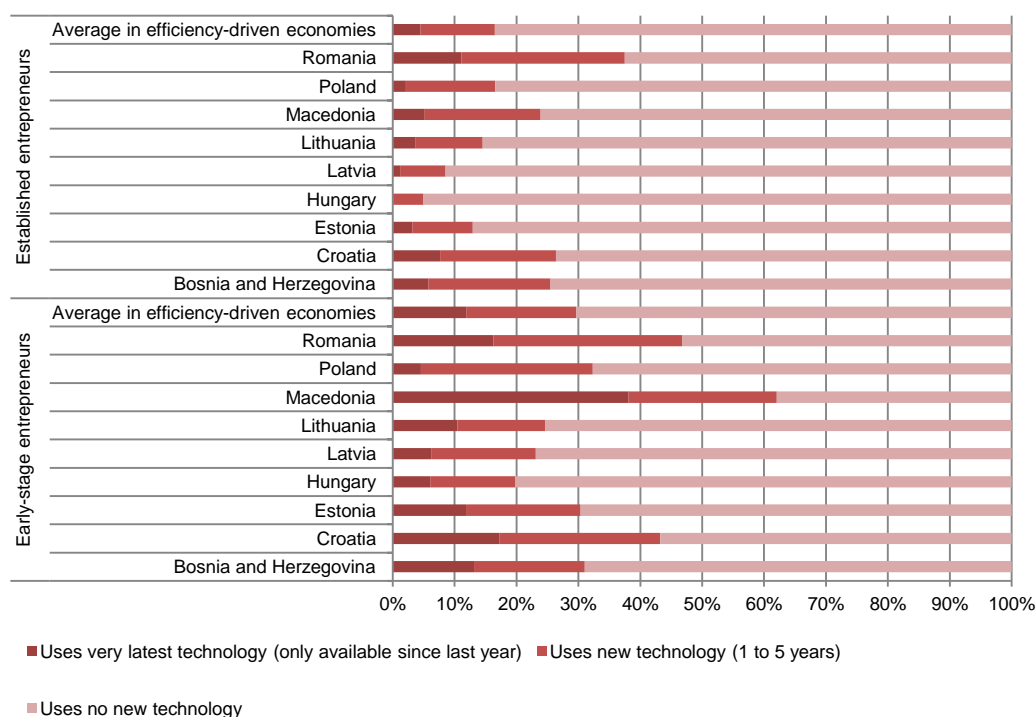


Source: GEM, Adult Population Survey, Romania, 2007-2012

Analyzing the competition faced by Romanian entrepreneurs, we conclude that 59.39% of established business owners offer products that many other businesses do in 2012 (Figure 15). Despite the fact that this value decreased in comparison with the value measured in the previous years, it is still higher than the one measured in case of early-stage entrepreneurs. 9.64% of early-stage entrepreneurs said that no other businesses offer the same products or services. This share is 13.28% in case of the established entrepreneurs, a value which indicates a significant increase compared to the previous years.

Comparing the technology level of early-stage entrepreneurs with the level of established entrepreneurs (Figure 16) we can conclude that early-stage entrepreneurs use latest technology more often than established entrepreneurs in efficiency-driven economies. Among CEE countries we can find in Macedonia the highest share of early-stage entrepreneurs using very latest technology (38.10%), while in case of those early-stage entrepreneurs who do not use new technology the highest share is reached in Hungary (80.20%). Romania reaches the highest percentage of those established entrepreneurs who use technology that is available no longer than one year (11.15%), while in Hungary is measured the highest rate of those who do not use new technology (95.03%).

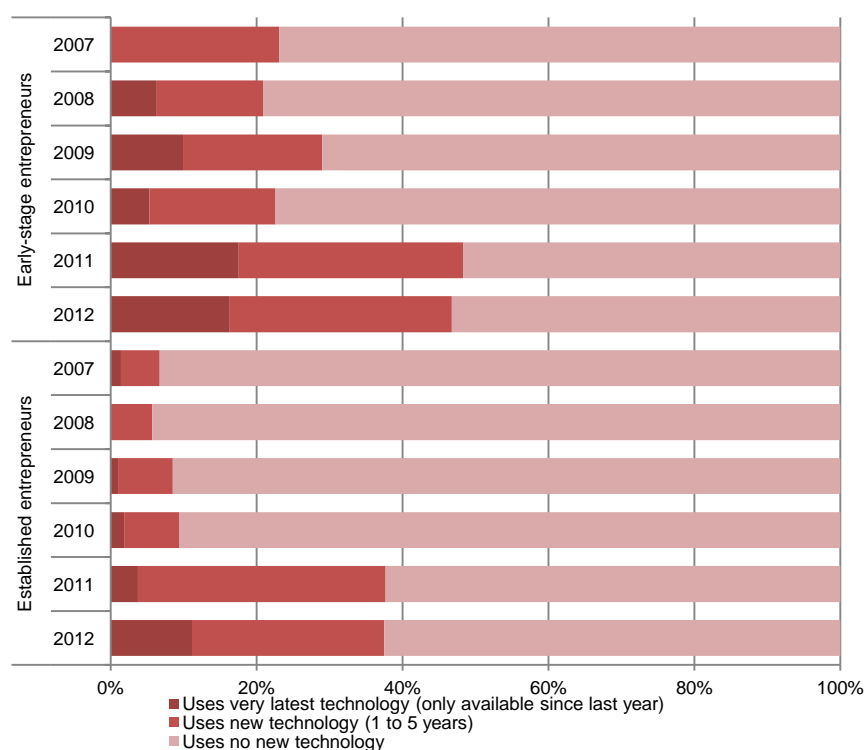
Figure 16 Technology level within early-stage entrepreneurs and established business owners in efficiency-driven economies from CEE, 2012 (%)



Source: GEM, Adult Population Survey, 2012

According to Figure 17 the technology used by early-stage entrepreneurs is newer than the one used by established entrepreneurs in Romania, too. The increased innovative level of Romanian entrepreneurship is also emphasized by the decreasing percentage of those entrepreneurs who do not use new technology (from 77.41% in 2010 to 53.25% in 2012 in case of early-stage entrepreneurs and from 90.56% in 2010 to 62.48% in 2012 in case of established entrepreneurs). In case of early-stage entrepreneurs we cannot find significant differences between the rates measured in 2011 and in 2012, while in case of established entrepreneurs the share of those who use very latest technology increased significantly.

Figure 17 Technology level within early-stage entrepreneurs and established business owners in Romania, 2007-2012 (%)



Source: GEM, Adult Population Survey, Romania, 2007-2012

The stronger measure of innovativeness represents both product/market newness and competitive uniqueness. This index measures the percentage of early-stage entrepreneurs with current products or services they consider novel and unfamiliar to some or all customers, and that they also believe that these products or services are offered by few or no other businesses. We can observe that almost in every country this index is higher in case of early-stage entrepreneurs than in case of established entrepreneurs. According to Kelley et al. (2011) this can be explained by the fact that nascent entrepreneurs are more likely to develop innovative offerings, but factors such as competitive imitation or a lack of ongoing innovation efforts could reduce the novelty of their products as they start to establish themselves in their market and industry environment. In Romania

in 2012 30.66% of early-stage entrepreneurs, respectively 26.46% of established entrepreneurs consider that their products or services are new to all or some of their customers and these products or services are offered by few or no other businesses. The value of this index increased significantly in case of established entrepreneurs from 2011 to 2012.

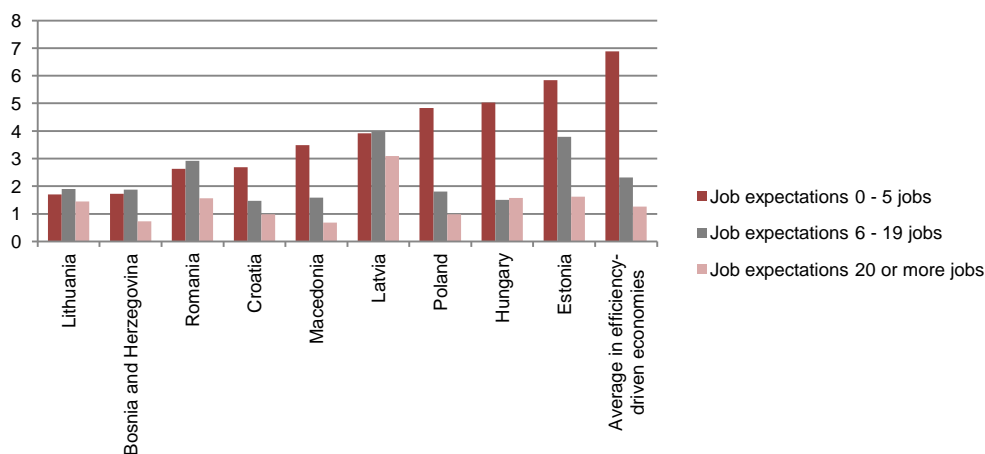
The growth expectations relate to job creation potential, which is an important policy concern for nearly every government, particularly in the aftermath of the global financial crisis and to accompanying upswing in unemployment rates (Xavier et al., 2013, p. 32). The growth expectation of entrepreneurs is the difference between the number of employees they expect to have within five years' time and the number of employees they have at the time of the survey. Early-stage entrepreneurs may be optimistic in their expectations thus their expectations for job creation are not always realized.

There are four categories of entrepreneurs based on expected number of jobs within the next five years:

- expects between 0-5 jobs: solo entrepreneurial activity (self-employed entrepreneurs, who do not aim at creating workplaces) and low job expectation entrepreneurial activity (modest job creators, often employ people from their own personal network)
- expects between 6-19 jobs: medium job expectation entrepreneurial activity
- expects 20 jobs or more: high job expectation entrepreneurial activity (ambitious entrepreneurs) (Bosma et al., 2012, p. 34; Xavier et al., 2013, p. 32).

Figure 18 shows the distribution of early-stage entrepreneurial activity by growth expectations in CEE countries among efficiency-driven economies in 2012. The result shows that this group of countries generally exhibits limited growth aspirations. 65.83% of the early-stage entrepreneurs indicate that they expect to add less than 5 employees within the next five years, and only 12.06% project 20 or more new jobs.

Figure 18 Job growth expectations of early-stage entrepreneurs in CEE countries among efficiency-driven economies, 2012 (%)



Source: GEM, Adult Population Survey, 2012

In Romania the most of the early-stage and established entrepreneurs offer 0-5 jobs. According to Table 9 , we can observe that the high-job expectation established entrepreneurial activity increased. The highest percentage among both early-stage and established entrepreneurs are those with low job expectations. The high-job expectations (expect their businesses to have more than 19 new employees within five years) of early-stage entrepreneurs have been decreased from 24.3% in 2011 to 22.0% in 2012, while in the case of established business owner-managers this rate increased considerably from 10.9% in 2011 to 22.1% in 2012.

Table 9 Current and expected number of jobs offered by early-stage entrepreneurs and established business owners in Romania, 2007-2012 (%)

		2007	2008	2009	2010	2011	2012
Current number of jobs							
TEA	No jobs	38.8	27.1	5.1	58.3	8.9	14.3
	1-5 jobs	41.5	48.1	83.6	28.6	62.0	69.0
	6-19 jobs	5.0	21.5	11.4	13.1	19.3	7.8
	20+ jobs	14.6	3.3	0.0	0.0	9.8	8.9
EB	No jobs	28.8	50.0	10.6	23.8	16.7	17.3
	1-5 jobs	41.7	26.1	73.9	47.6	50.1	57.3
	6-19 jobs	28.2	14.3	13.4	15.9	21.8	17.1
	20+ jobs	1.3	9.7	2.1	12.6	11.4	8.3
Expected number of jobs							
TEA	No jobs	8.2	3.9	5.2	11.3	3.8	7.4
	1-5 jobs	31.6	47.1	68.9	40.9	41.3	29.6
	6-19 jobs	28.1	22.8	15.9	31.8	30.6	41.0
	20+ jobs	32.1	26.2	10.1	16.0	24.3	22.0
EB	No jobs	28.0	26.8	16.0	26.2	16.1	15.8
	1-5 jobs	34.2	30.2	63.3	22.9	43.6	37.4
	6-19 jobs	18.6	29.2	10.8	31.7	29.4	24.8
	20+ jobs	19.2	13.7	9.9	19.2	10.9	22.1

Source: GEM, Adult Population Survey, Romania, 2007-2012

Entrepreneurial attitudes and perceptions

Entrepreneurial attitudes convey the general feelings of a population toward entrepreneurs and entrepreneurship. A society can benefit from people who are able to recognize valuable business opportunities, and who perceive they have the required skills to exploit them (Kelley et al., 2011, p. 17). The positive or negative perceptions that society has about entrepreneurship can strongly influence the motivations of people to enter entrepreneurship. If the economy in general has a positive attitude towards entrepreneurship, this can generate cultural and social support, financial and business assistance, and networking benefits that will encourage and facilitate potential and existing entrepreneurs (Xavier et al., 2013, p. 18).

The GEM survey includes the following indicators of attitudes about starting a business: individual self-perceptions (awareness about good opportunities for starting a business in one's area; belief in one's skills and experience to start a business; attitude toward failure), societal impressions (whether starting a business is considered a good career choice; opinion about the association of entrepreneurship with high status; awareness of positive media attention for entrepreneurship) (Xavier et al., 2013, p. 18).

As we can see in Appendix 2 Central Eastern European countries have lower opportunity perceptions than the average of efficiency-driven economies, except Estonia. Fear of failure shows less distinction among countries with different stages of economic development, just slightly rising with economic development levels. Fear of failure might be lower among those who see good opportunities to start a business in the next six months in the area where they live. The perceptions about the attractiveness of entrepreneurship as a career choice decline from factor-driven to efficiency-driven economies, and then from efficiency to innovation-driven economies.

Romania's fear of failure rate is the 15th highest among GEM countries and the 6th among efficiency-driven economies as it can be seen in Table 10 . Among the 30 efficiency-driven economies Romania is the 27th regarding the self-consideration of having the required knowledge and skills to start a business, nevertheless the rate decreased to 38.25% in 2012 from 41.63% in 2011. Entrepreneurship is an attractive career choice in the view of the Romanian adult population, according to this rate Romania's rank is the 15th among efficiency-driven economies.

Table 10 Romanian entrepreneurship ranked by entrepreneurial attitudes and perceptions in case of efficiency-driven economies and in global view, 2008-2012

	Global rank					Efficiency-driven country rank				
	2008 (43)	2009 (54)	2010 (59)	2011 (54)	2012 (67)	2008 (17)	2009 (22)	2010 (24)	2011 (24)	2012 (30)
Perceived opportunities	35	51	56	32	39	15	21	24	15	18
Perceived capabilities	41	50	53	38	50	16	21	21	20	27
Fear of failure	12	5	5	19	15	4	1	3	9	6
Social network/capital	26	40	38	36	51	12	18	18	17	25
Entrepreneurship as desirable career choice	n.a.	42	32	21 ^a	23 ^d	n.a.	20	18	12 ^c	15 ^f
High status successful entrepreneurship	29	40	45	24 ^b	27 ^d	11	16	16	10 ^c	12 ^f
Media attention for entrepreneurship	30	44	47	26 ^a	35 ^e	13	19	20	12 ^c	18 ^f

Notes:

^a The following countries don't have available data: Czech Republic, Denmark, Latvia, Lithuania, Panama, Portugal, Switzerland, Turkey.

^b The following countries don't have available data: Denmark, Latvia, Lithuania, Panama, Portugal, Switzerland, Turkey.

^c The following countries don't have available data: Latvia, Lithuania, Panama, Turkey.

^d The following countries don't have available data: Angola, Barbados, Denmark, Malawi, Panama, Portugal, Sweden, Uganda, USA.

^e The following countries don't have available data: Angola, Austria, Barbados, Denmark, Malawi, Panama, Portugal, Sweden, Uganda, USA.

^f The following countries don't have available data: Barbados, Panama.

Source: Own calculations based on GEM, Adult Population Survey, 2008 – 2012

As it can be seen in Table 11 the fear of failure rate slightly increased from 43.05% in 2011 to 45.04% in 2012, this increase is more intense in case of males, while in case of females the level of risk they might be willing to assume to start a business is lower.

Table 11 Individual perceptions regarding entrepreneurial activity by gender in Romania, 2007-2012 (%)

Perceptions		2007	2008	2009	2010	2011	2012
Fear of failure prevents from starting a business	Total	28.3	41.5	50.4	45.99	43.05	45.04
	Male	22.1	37.6	49.3	43.38	37.47	40.81
	Female	33.9	45.2	51.5	49.41	48.49	49.19
Has the required knowledge and skills to start a business	Total	29.4	23.8	27.3	38.18	41.63	38.25
	Male	34.6	31.7	30.4	42.56	49.38	48.19
	Female	24.6	16.5	24.2	32.48	34.07	28.66

Perceptions		2007	2008	2009	2010	2011	2012
Knows a person who started a business in the past two years	Total	41.6	37.9	35.5	39.05	29.36	31.39
	Male	43.6	43.0	37.1	42.15	35.32	37.33
	Female	39.9	33.1	33.9	34.97	23.55	23.63
Prefers that everyone had a uniform standard of living	Total	46.6	48.8	49.3	57.32	59.37	68.63
	Male	45.3	50.7	46.6	54.91	57.68	66.42
	Female	47.8	47.0	52.1	60.47	61.02	70.88
Sees good opportunity for starting a business in the next six month	Total	26.2	25.8	13.8	17.52	36.06	36.72
	Male	27.3	29.0	15.0	19.28	37.49	42.20
	Female	25.2	22.7	12.6	15.16	34.60	31.03
Thinks that those who are successful at starting a new business have a high level of status and respect	Total	62.5	68.5	67.2	65.50	69.42	73.56
	Male	58.0	68.3	68.2	62.42	65.69	71.68
	Female	66.5	68.8	66.2	69.43	73.16	75.45
Considers that successful new businesses are properly promoted by the media	Total	50.4	56.2	47.4	46.92	56.74	55.22
	Male	45.5	57.5	48.7	45.96	57.70	50.55
	Female	55.3	55.0	46.0	48.21	55.73	59.81

Source: GEM, Adult Population Survey, Romania, 2007-2012

The percentage of the Romanian adult population who believe they have the required skills, knowledge and experience to start a new business decreased from 41.63% in 2011 to 38.25% in 2012, especially in case of females (from 34.07% in 2011 to 28.66% in 2012). Almost the half of the Romanian male population considers that they possess the required skills to start a new venture.

The extension to which people think there are good opportunities to start a business increased from 17.52% in 2010 to 36.06% in 2011, while in 2012 there are no significant changes. In 2012 successful entrepreneurs are slightly more appreciated than they were in the previous six years. In 2012 73.56% of the adult population aged between 18-64 years, consider that those who are successful at starting a new business have a high level of status and respect. The percentage of those who consider that successfully businesses are properly promoted by mass media slightly decreased in 2012.

Table 12 represents the attitudes and perceptions of those who are involved in any kind of entrepreneurial activity in comparison with those who are not. The level of perceived opportunities

and capabilities in case of entrepreneurs is significantly higher than in case of non-entrepreneurs, while the fear of failure rate is higher among the non-entrepreneurs. A lower proportion of non-entrepreneurs consider that individuals would prefer a uniform living of standard. The level of the perceived media attention toward entrepreneurship is lower in case of entrepreneurs.

Table 12 Individual perceptions and attitudes regarding entrepreneurial activity of entrepreneurs and non-entrepreneurs, 2007-2012 (%)

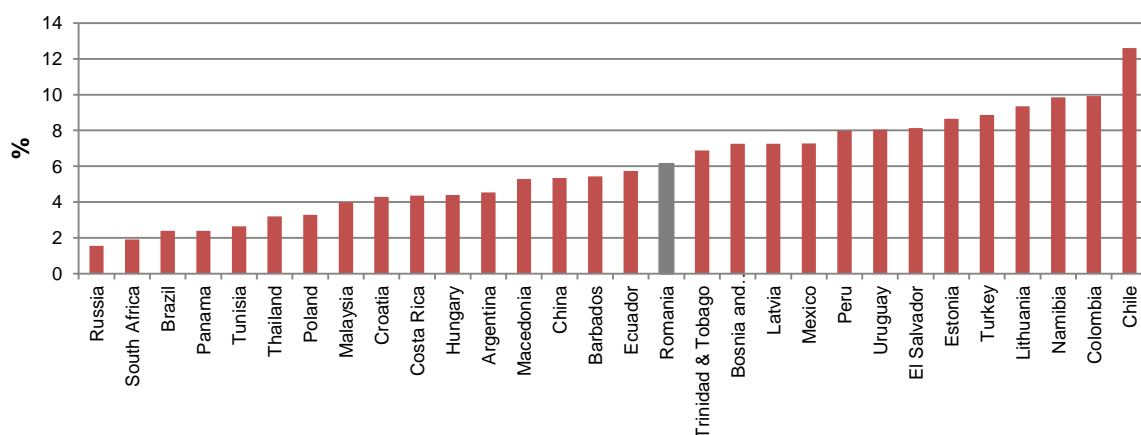
	2007		2008		2009		2010		2011		2012	
	Involved in entrepreneurial activity											
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Knows a person who started a business in the past 2 years	33.5	81.3	31.7	75.8	28.0	73.6	36.9	69.9	20.4	47.4	24.5	68.9
Sees good opportunities for starting a business in the next 6 months	20.9	51.5	22.7	45.9	11.4	27.3	16.0	40.5	29.2	45.9	33.9	54.9
Has the required knowledge/skills to start a business	19.4	77.0	16.8	64.5	19.1	69.6	34.3	93.8	24.8	73.0	31.9	80.8
Fear of failure would prevent to start a business	29.0	25.3	41.7	40.3	49.9	52.7	47.4	24.5	46.4	38.2	46.2	37.3
All inhabitants prefer uniform living standard	46.2	48.4	47.6	56.5	48.9	50.2	57.9	48.9	57.8	63.6	68.4	70.1
Starting a business is considered as a good career choice	59.5	68.1	n.a.	n.a.	55.3	63.5	66.0	73.6	68.2	66.0	72.8	60.6
Persons growing a successful new business receive high status	60.7	71.1	67.5	74.5	65.6	70.8	65.9	59.6	71.2	67.4	74.2	69.4
Lots of media coverage for new businesses	46.5	67.0	54.4	66.0	45.3	52.5	46.1	57.8	58.4	50.8	55.6	53.2

Source: GEM, Adult Population Survey, Romania, 2007-2012

Financing entrepreneurial ventures

Informal investors are important for the entrepreneurial society. Informal investors are identified in the GEM countries by asking every respondent if they had made a recent informal investment in a business startup that was not their own. In Romania, 6.14% of the adult population responded affirmatively to this question in 2012 (Figure 19), which value is higher than the average reached in the efficiency-driven economies (5.97%).

Figure 19 Percentage of informal investors in the efficiency-driven economies in 2012

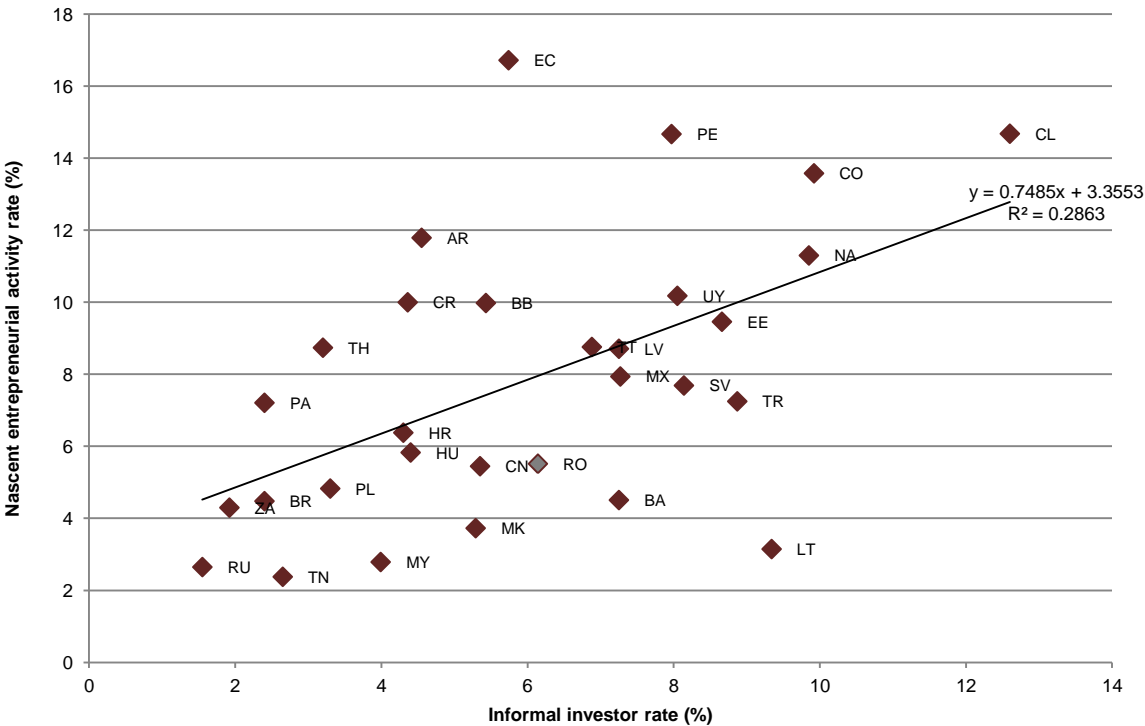


Source: GEM, Adult Population Survey, 2012

From countries with high rates of nascent entrepreneurial activity might be expected to have high informal investor prevalence rates. This relationship can be seen in Figure 20 in case of efficiency-driven economies. The relationship between these variables is positive (the value of the correlation coefficient is 0.54). We can observe that our expectations are valid in case of almost every country, except for Ecuador, Argentina, and Peru, which have comparatively low informal investor rates, but high nascent entrepreneurial activity rate, while in case of Lithuania we can find high informal investor rate with low nascent entrepreneurial activity rate.



Figure 20 Nascent entrepreneurial activity rates and informal investor rate in efficiency-driven economies, 2012

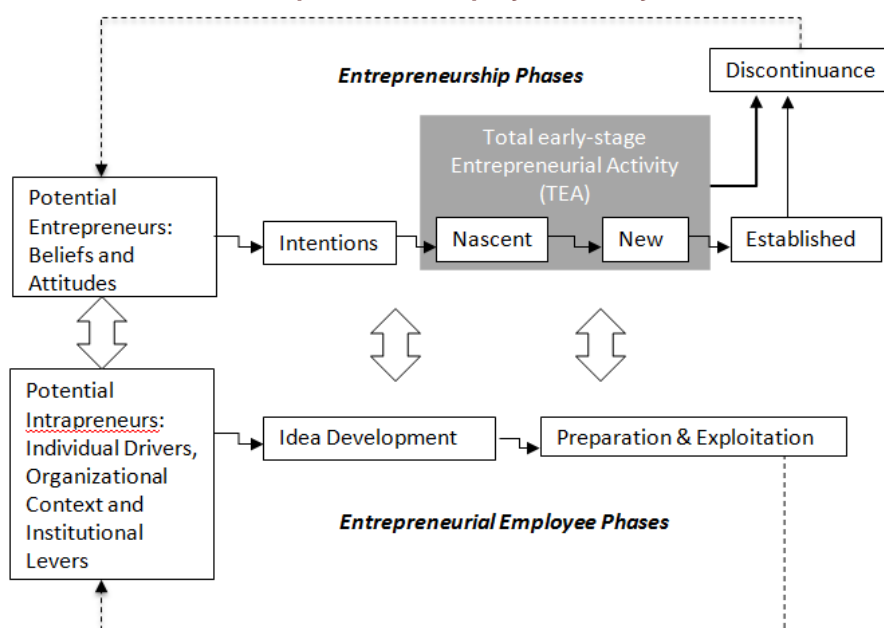


Source: GEM, Adult Population Survey, 2012

Entrepreneurial employee activity

GEM define entrepreneurial employee activity as employees developing new activities for their main employer, such as developing or launching new goods or services, or setting up a new business unit, a new establishment or subsidiary. This definition is wider than new organization creation, but it excludes employee initiatives that mainly aim at optimizing internal work processes. Furthermore, this report distinguishes between two phases of entrepreneurial employee activity, i.e. idea development for a new activity and preparation and implementation of a new activity. Idea development includes for example active information search, brainstorming and submitting ideas for new activities to the management of the business. Preparation and implementation of a new activity refers to promoting an idea for a new activity, preparing a business plan, marketing the new activity, finding financial resources and acquiring a team of workers for the new activity (Bosma et al., 2012, p. 53). This operational process can be seen in Figure 21 .

Figure 21 Entrepreneurship process and GEM operational definitions, including entrepreneurial employee activity



Source: Bosma et al., 2012, p. 54

There are two measures of entrepreneurial employee activity rate (EEA) (Bosma et al., 2012, p. 54):

- broad definition: employee who in the past three years was actively involved in and had a leading role in at least one of the following phases, idea development for a new activity or preparation and implementation of a new activity
- narrow definition: employee who is currently involved in the development of such new activities.

It can be observed that the entrepreneurial employees according to the narrow definition are a subgroup of those according to the broad definition. The prevalence of entrepreneurial employee activity can be defined as the number of entrepreneurial employees, according to both definition, as a percentage of the total number of employees or the adult population (Bosma et al., 2012, p. 54).

The entrepreneurial employee's profile in Romania can be seen in Table 13 . We can observe that the typical entrepreneurial employee in Romania is male, aged between 25-34 years, situated in the upper 33% regarding household income, with post secondary degree.

Table 13 Prevalence of entrepreneurial employees across age, gender, education and household income, 2011-2012 (%)

Variables	Categories	2011	2012
Age	18-24	15.1	10.7
	25-34	32.1	36.9
	35-44	15.1	24.5
	45-54	20.8	23.6
	55-64	17.0	4.2
Gender	Male	55.8	56.6
	Female	44.2	43.4
Household income categories	Lowest 33%	2.2	3.6
	Middle 33%	20.0	28.2
	Upper 33%	77.8	68.2
Education level	Some secondary degree	0.0	18.7
	Secondary degree	14.0	33.8
	Post-secondary degree	74.0	34.4
	Graduate experience	12.0	13.0

Note: The narrow definition of EEA was adopted for this table

Source: GEM, Adult Population Survey, Romania, 2011-2012

In Romania in 2012 the entrepreneurial employees are less optimistic than in 2011, only 34.1% of them sees good opportunities to start a new venture in the next six months, this rate do not differ significantly from the opportunity perceptions of other employees (33.9%). A higher percentage of entrepreneurial employees confirmed that they have the necessary skills and knowledge to start a new business than the other employees. It can be observed that the entrepreneurial employees have higher risk awareness than the other employees, in case of entrepreneurial employees the fear

of failure rate is 40.2%, while in case of other employees is 46.7%. More than half of the entrepreneurial employees consider entrepreneurship to be a good career choice, while in case of other employees this share is almost three quarters.

Table 14 Individual perceptions of entrepreneurial employees regarding entrepreneurial activity, 2011-2012 (%)

	Entrepreneurial employees		Other employees	
	2011	2012	2011	2012
Knows a person who started a business in the past 2 years	47.2	36.0	29.8	23.6
Sees good opportunities for starting a business in the next 6 months	55.9	34.1	33.8	33.9
Has the required knowledge/skills to start a business	65.7	51.1	37.6	30.6
Fear of failure would prevent to start a business	27.3	40.2	49.7	46.7
All inhabitants prefer uniform living standard	41.2	51.8	58.2	69.6
Starting a business is considered as a good career choice	59.4	67.4	66.7	73.3
Persons growing a successful new business receive high status	70.6	70.0	68.6	74.5
Lots of media coverage for new businesses	47.2	57.0	54.8	55.5

Note: The narrow definition of EEA was adopted for this table

Source: GEM, Adult Population Survey, Romania, 2011-2012



Entrepreneurial environment according to national experts

The GEM model (Figure 1) illustrates the relevant national conditions that impact on economic development and activity more generally, and those facilitating innovation and entrepreneurship more specifically in a society. Three sets of framework conditions are expected to concern public and policy makers at different stages of development (Xavier et al., 2013, p. 34).

The features that are expected to have a significant impact on the entrepreneurial sector are captured in the nine Entrepreneurial Framework Conditions (EFCs) and are illustrated and described in Table 15 .

Table 15 The GEM Entrepreneurial Framework Conditions

1	Entrepreneurial Finance The availability of financial resources, equity, and debt, for new and growing firms, including grants and subsidies.
2	Government Policy The extent to which government policies, such as taxes or regulations are either size- neutral or encourage new and growing firms.
3	Government Entrepreneurship Programs The extent to which taxes or regulations are either size-neutral or encourage new and growing firms.
4	Entrepreneurial Education The extent to which training in creating/ managing new, small or growing business entities is incorporated within the education and training system at all levels. There are two sub-divisions – primary and secondary school entrepreneurship education and training; and post-school entrepreneurship education and training.
5	R&D Transfer The extent to which national research and development will lead to new commercial opportunities, and whether or not these are available for new, small and growing firms.
6	Commercial and Legal Infrastructure The presence of commercial, accounting and other legal services and institutions that allow or promote the emergence of small, new and growing business entities.
7	Entry Regulations There are two sub-divisions – market dynamics, i.e. the extent to which markets change dramatically from year to year; and market openness, i.e. the extent to which new firms are free to enter existing markets.
8	Physical Infrastructure Ease of access to available physical resources – communication, utilities, transportation, land or space – at a price that does not discriminate against new, small or growing firms.
9	Cultural and Social Norms The extent to which existing social and cultural norms encourage, or do not discourage, individual actions that might lead to new ways of conducting business or economic activities which might, in turn, lead to greater dispersion in personal wealth and income.

Source: Xavier et al., 2013, p. 35

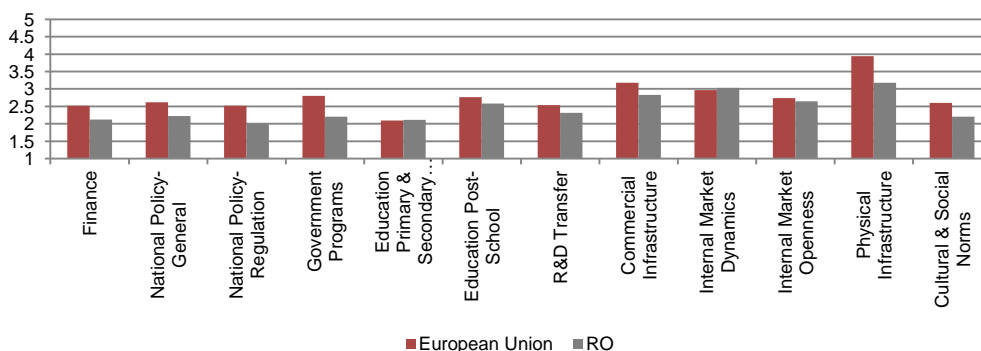
Three of the conditions (education, national policy, and internal markets) contain each two subconditions. Education includes primary/secondary school and post school training. National policy contains both general policy and regulatory policy. Internal markets refers to both dynamics (the level of change in markets from year to year) and openness (the extent to which new firms are free to enter existing markets).

The National Experts' Survey (NES) provides insights into the ways in which these EFCs either foster or constrain an entrepreneurial climate, activity and development. In order to assess the national conditions influencing entrepreneurial activity at least 36 experts in each country complete a closed questionnaire on factors relating to our entrepreneurial environment. The responses are measured on a 5-point Likert scale where a score of 1=completely false and 5=completely true. The statements are phrased so that a score of 4 or 5 would indicate that the expert regarded the factor as positive for entrepreneurship, while a score of 1 or 2 would indicate that the expert regarded the factor as negative for entrepreneurship (Xavier et al., 2013, p. 34).

Appendix 3 provides an overview of the entrepreneurial framework conditions valued most positive and most negative by the national experts by geographic regions. It identifies the three EFCs with the lowest scores as well as the three with the highest scores for each participating country in the 2012 National Expert Survey (Xavier et al., 2013, p. 39). Internal market dynamics and physical infrastructure are rated the most times, by the participating countries, as positive framework conditions, only in case of five countries aren't rated as one of the three most positive framework conditions. Primary and secondary education was rated as one of the three most negative framework conditions by the majority of countries.

In case of the countries from the European Union the most positive framework conditions are physical infrastructure, commercial infrastructure and internal market dynamics, while the three most negative ones are primary and secondary education, national policy regulation and finance. In Romania the three most positive framework conditions are physical infrastructure, internal market dynamics, and national policy-general policy.

Figure 22 Scores on Entrepreneurship Framework Conditions rated by national experts in the European Union and in Romania, 2012

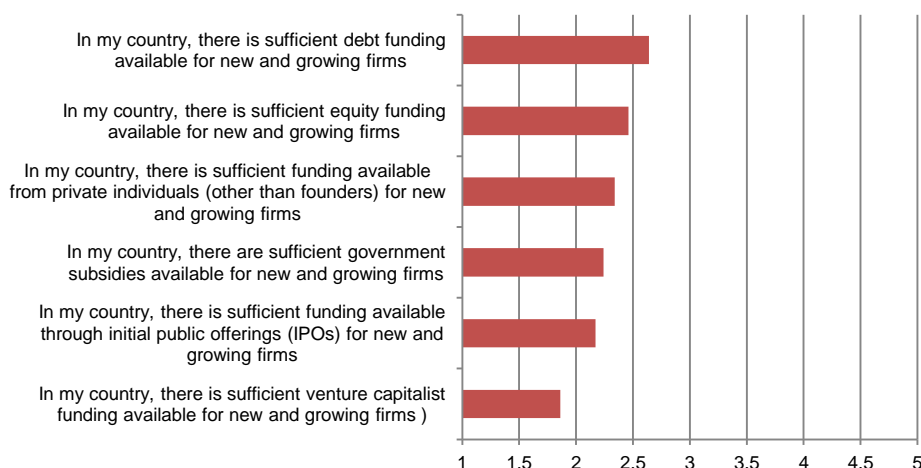


Source: GEM NES, 2012

As it can be seen at Figure 22 the average scores in Romania are lower than the average scores in the European Union, except the case of the internal market dynamics framework condition, where the scores are almost equal.

The Financial Support framework condition describes the supply and demand of financial resources, especially for new and expanding businesses (Xavier et al., 2013, p. 37). In Figure 23 we can see the mean scores for each subcondition from finance framework condition. The scores are below 3, which mean that financing for entrepreneurs is negatively viewed by national experts in Romania. The worst evaluation was given for the availability of venture capitalist funding for new and growing firms.

Figure 23 Scores on Entrepreneurial Finance Framework Conditions rated by national experts in Romania, 2012



Source: GEM NES Romania, 2012

The Government Policy entrepreneurial framework condition relates to the extent to which government policies seen, as a whole, influence new and growing firm. This includes the tax regime, labor market regulation, social security legislation as well as regulations and schemes that specifically aim at the small business sector (Xavier et al., 2013, p. 37). Romania has low scores with respect to the government support and the priority given to entrepreneurial development (Figure 24). In view of Romanian national experts the national policy does not offer sufficient support for new firms. The variable regarding bureaucracy and taxes is one of the most negatively rated ones, too.

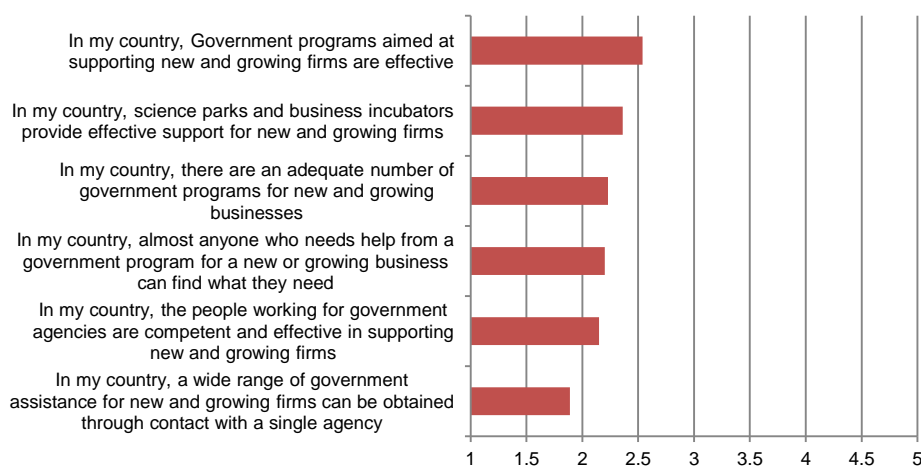
Figure 24 Scores on Government Policy Framework Conditions rated by national experts in Romania, 2012



Source: GEM NES Romania, 2012

The Government Programs framework condition relates to the presence of programs (at national and regional levels) and other initiatives to support new and growing firms (Xavier et al., 2013, p. 37). Experts in Romania rate negatively the presence of programs and other initiatives to support new and growing firms (an average score below 3) (Figure 25).

Figure 25 Scores on Government Programs Framework Conditions rated by national experts in Romania, 2012



Source: GEM NES Romania, 2012

The Education and Training entrepreneurial framework condition relates to the extent to which entrepreneurship and entrepreneurial qualities receive attention in all phases of the educational and training system (Xavier et al., 2013, p. 36). The scores in case of primary and secondary education are lower than in case of post school education (Figure 26). The primary and secondary education was one of the three most frequently negatively indicated framework condition by national experts in Romania.

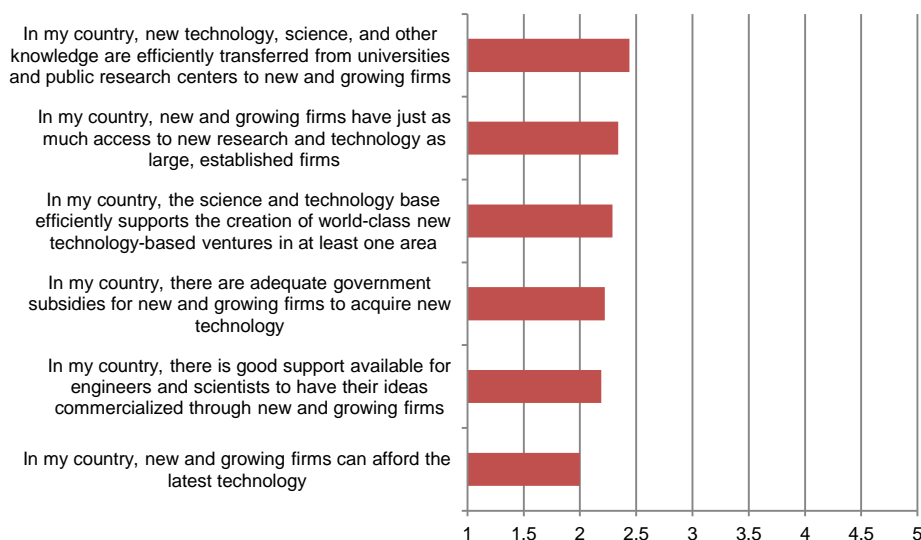
Figure 26 Scores on Education and Training Framework Conditions rated by national experts in Romania, 2012



Source: GEM NES Romania, 2012

The Research and Development framework condition refers to the extent to which national research and development will lead to new commercial opportunities and whether or not these are available for new, small, and growing firms (Xavier et al., 2013, p. 36). The scores given by the experts in Romania emphasize that the national expenditure on R&D will need to increase (Figure 27). New and growing firms cannot afford latest technology, thus the availability of new technology must be improved.

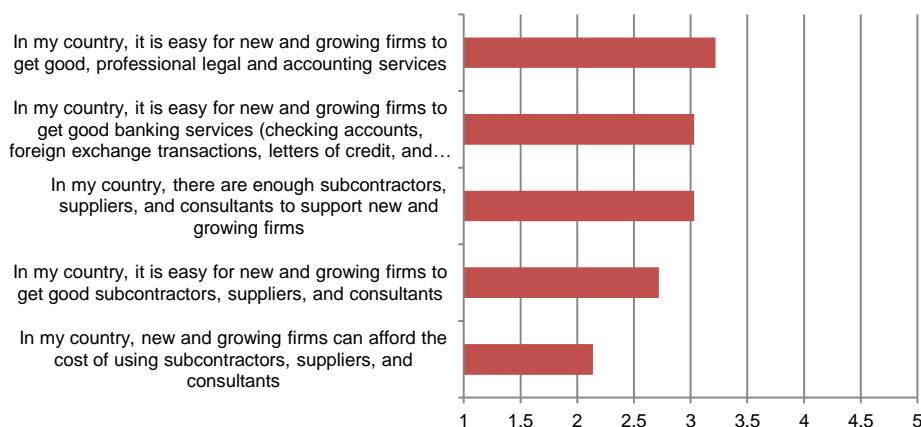
Figure 27 Scores on Research and Development Framework Conditions rated by national experts in Romania, 2012



Source: GEM NES Romania, 2012

The Commercial and Legal Infrastructure framework condition refer to the presence of commercial, accounting and other legal services and institutions that allow or promote the emergence of small, new and growing business entities (Xavier et al., 2013, p. 35). In case of three subconditions the score is above 3, which means that in Romania new and growing firms have access to good, professional legal accounting and banking services and there are enough subcontractors, suppliers and consultants to support them (Figure 28).

Figure 28 Scores on Commercial and Legal Infrastructure Framework Conditions rated by national experts in Romania, 2012



Source: GEM NES Romania, 2012

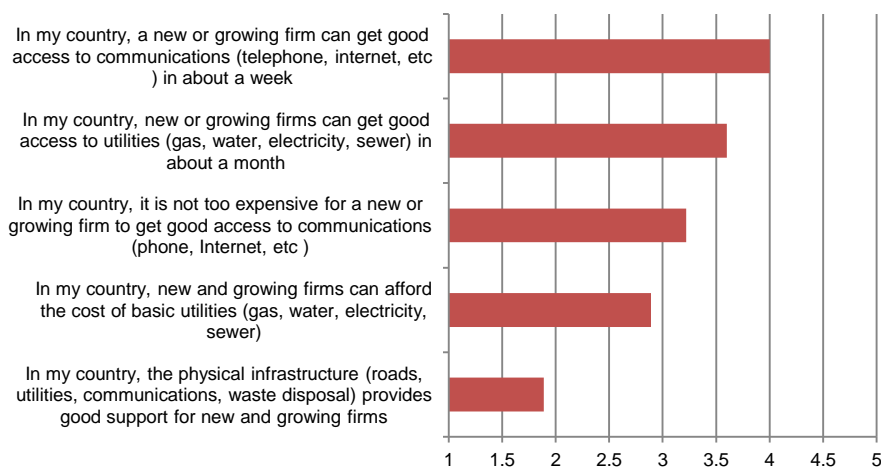
The Entry Regulations framework condition is divided in two subcondition: internal market dynamics (the level of change in markets to year to year) and internal market openness (the extent to which new firms are free to enter existing markets) (Xavier et al., 2013, p. 35). In Romania the internal market dynamics is one of the three most positive framework conditions indicated by the national experts (Figure 29). In the opinion of the national experts the ease of entering new markets should be improved.

Figure 29 Scores on Entry Regulations Framework Conditions rated by national experts in Romania, 2012



Source: GEM NES Romania, 2012

Figure 30 Scores on Physical Infrastructure Framework Conditions rated by national experts in Romania, 2012



Source: GEM NES Romania, 2012

The Physical Infrastructure entrepreneurial framework condition refers to the presence of and access to available physical resources e.g. communication, utilities, transportation, land or space, at a price that does not discriminate against new, small or growing firms (Xavier et al., 2013, p. 36). The physical infrastructure is considered to be one of the three most positive areas that encourage entrepreneurship in Romania. The national experts affirmed that new or growing firms can get good access to communications in about a week, which is not expensive, can get to utilities in about a month. In the opinion of the national experts the conditions of the roads is bad, and there is a need for a better waste management (Figure 30).

The Cultural and Social Norms refers to the extent to which existing social and cultural norms encourage, or do not discourage, individual actions that might lead to new ways of conducting business or economic activities which might, in turn, lead to greater dispersion in personal wealth and income (Xavier et al., 2013, p. 35). In Romania in opinion of the national experts the cultural and social norms should better support individual success through own personal efforts, creativity, innovativeness, entrepreneurial risk-taking, should emphasize more self-sufficiency, autonomy and personal initiative (Figure 31).

Figure 31 Scores on Cultural and Social Norms Framework Conditions rated by national experts in Romania, 2012



Source: GEM NES Romania, 2012



References

- Bosma, N., Wenekkers, S. & Amorós, J. E. (2012), "Global Entrepreneurship Monitor. 2011 Extended Report: Entrepreneurs And Entrepreneurial Employees Across The Globe", *Babson College, Universidad del Desarrollo, Universiti Tun Abdul Razak, London Business School and Global Entrepreneurship Research Consortium (GERA)*.
- Kelley, D., Bosma, N. & Amoros, J. E. (2011), "Global Entrepreneurship Monitor. 2010 Global Report", *Babson College, Universidad del Desarrollo and Global Entrepreneurship Research Consortium (GERA)*.
- Kelley, D., Singer, S. & Herington, M. (2012), "Global Entrepreneurship Monitor. 2011 Global Report", *Babson College, Universidad del Desarrollo, Universiti Tun Abdul Razak, London Business School and Global Entrepreneurship Research Consortium (GERA)*.
- Matiş, D., Nagy Á., Petru T.P. & Benyovszki A. (2011), "*Entrepreneurship in Romania. 2010 Country Report*", <http://www.gemconsortium.org/docs/764/gem-romania-2010-report>
- Schwab, K. & Sala-i-Martin, X. (2012), "*The Global Competitiveness Report 2012-2013*", World Economic Forum, Geneva, Switzerland.
- Xavier, S. R., Kelley, D., Kew, J., Herrington, M., Vorderwülbecke, A. (2013), "Global Entrepreneurship Monitor. 2012 Global Report", *Babson College, Universidad del Desarrollo, Universiti Tun Abdul Razak and Global Entrepreneurship Research Consortium (GERA)*.

Appendices

Appendix 1 Entrepreneurial activity in the GEM countries in 2012

Country	Nascent entrepreneurship rate	New business ownership rate	Early-stage entrepreneurial activity (TEA)	Established business ownership rate	Discontinuation of businesses	Necessity-driven (% of TEA)	Improvement-driven opportunity (% of TEA)
FACTOR-DRIVEN ECONOMIES							
Algeria	1.62	7.25	8.75	3.32	6.93	29.96	47.42
Angola	14.89	18.88	32.39	9.06	25.86	23.75	38.26
Botswana	17.04	12.24	27.66	6.33	16.26	33.41	47.97
Egypt	3.10	4.87	7.82	4.15	5.28	33.58	22.90
Ethiopia	5.70	9.25	14.73	10.20	3.40	20.35	69.22
Ghana	15.42	22.78	36.52	37.74	16.24	27.56	50.97
Iran	4.47	6.48	10.79	9.53	5.05	41.96	36.20
Malawi	18.45	20.39	35.56	10.80	28.91	41.92	42.87
Nigeria	21.77	14.19	35.04	15.67	8.31	34.54	53.22
Pakistan	8.29	3.42	11.57	3.78	2.53	52.95	23.56
Palestine	6.22	3.81	9.84	2.98	7.73	41.91	26.58
Uganda	9.58	27.56	35.76	31.25	25.92	46.00	42.11
Zambia	27.50	14.57	41.46	3.84	20.23	32.00	46.24
Average (unweighted)	11.85	12.75	23.68	11.43	13.28	35.38	42.12
EFFICIENCY-DRIVEN ECONOMIES							
Argentina	11.79	7.30	18.88	9.63	4.92	34.54	46.61
Barbados	9.98	7.23	17.12	12.23	2.87	12.42	62.68
Bosnia and Herzegovina	4.51	3.35	7.78	6.00	7.19	58.33	20.14
Brazil	4.48	11.30	15.44	15.19	4.51	30.13	58.83
Chile	14.68	8.43	22.58	7.77	4.97	17.40	68.87
China	5.45	7.43	12.83	12.45	3.73	36.88	39.37
Colombia	13.58	6.86	20.11	6.72	6.74	12.42	47.83
Costa Rica	10.00	5.34	15.04	3.33	3.49	20.20	47.88
Croatia	6.38	1.89	8.27	3.06	4.24	34.23	35.68
Ecuador	16.72	11.68	26.61	18.92	7.59	35.83	30.21
El Salvador	7.69	7.79	15.26	9.39	7.83	35.24	39.22
Estonia	9.46	5.09	14.26	7.24	3.96	18.22	49.10
Hungary	5.83	3.59	9.22	8.10	3.77	31.13	35.27
Latvia	8.71	4.82	13.39	7.93	3.39	25.26	46.02
Lithuania	3.15	3.64	6.69	8.24	2.20	24.63	51.49
Macedonia	3.73	3.25	6.97	6.73	3.86	51.95	28.73
Malaysia	2.79	4.20	6.99	6.96	1.62	13.32	60.70
Mexico	7.94	4.28	12.11	4.67	4.31	13.44	51.82
Namibia	11.30	7.00	18.15	3.17	11.59	37.25	36.79
Panama	7.21	2.69	9.46	1.86	1.82	19.49	56.76
Peru	14.67	6.22	20.21	5.10	6.75	23.42	53.13
Poland	4.83	4.55	9.36	5.81	3.89	40.71	30.13
Romania	5.51	3.83	9.22	3.91	3.81	24.19	37.70
Russia	2.65	1.80	4.34	2.05	1.00	36.40	31.40



Country	Nascent entrepreneurship rate	New business ownership rate	Early-stage entrepreneurial activity (TEA)	Established business ownership rate	Discontinuation of businesses	Necessity-driven (% of TEA)	Improvement-driven opportunity (% of TEA)
South Africa	4.30	3.08	7.32	2.32	5.03	31.67	39.74
Thailand	8.74	11.32	18.94	29.69	2.78	16.69	67.40
Trinidad & Tobago	8.76	6.52	14.96	7.19	4.50	15.09	59.88
Tunisia	2.38	2.48	4.78	4.37	3.98	35.47	42.29
Turkey	7.25	5.36	12.22	8.68	5.24	30.88	54.57
Uruguay	10.18	4.71	14.63	4.97	4.99	18.38	39.85
Average (unweighted)	7.82	5.57	13.11	7.79	4.55	27.84	45.67
INNOVATION-DRIVEN ECONOMIES							
Austria	6.58	3.42	9.58	7.61	3.56	10.81	38.20
Belgium	3.32	1.95	5.20	5.12	2.39	17.91	61.56
Denmark	3.07	2.36	5.36	3.45	1.34	8.24	70.65
Finland	3.45	2.68	5.98	8.04	1.99	17.10	59.88
France	3.74	1.54	5.17	3.23	1.96	18.14	58.94
Germany	3.51	2.15	5.34	4.95	1.91	21.68	50.74
Greece	3.82	2.84	6.51	12.27	4.43	29.94	32.11
Ireland	3.91	2.28	6.15	8.32	1.74	28.14	40.52
Israel	3.50	3.03	6.53	3.78	4.04	19.17	46.13
Italy	2.47	1.92	4.32	3.32	2.43	15.74	22.30
Japan	2.26	1.72	3.99	6.11	1.12	20.72	66.41
Korea	2.56	4.08	6.64	9.57	3.17	34.89	46.17
Netherlands	4.08	6.26	10.31	9.49	2.17	8.44	66.35
Norway	3.70	3.15	6.75	5.75	1.45	7.41	69.63
Portugal	4.26	3.63	7.67	6.23	2.98	17.86	53.08
Singapore	7.60	4.18	11.56	3.10	3.88	14.77	54.45
Slovakia	6.65	3.91	10.22	6.38	4.69	35.57	42.88
Slovenia	2.95	2.53	5.42	5.79	1.62	7.36	64.02
Spain	3.35	2.45	5.70	8.74	2.11	25.59	32.51
Sweden	4.59	1.85	6.44	5.25	1.86	6.84	48.59
Switzerland	2.90	3.03	5.93	8.44	2.02	18.08	57.46
Taiwan	3.33	4.21	7.54	10.38	5.67	17.93	42.60
United Kingdom	5.30	3.74	8.98	6.16	1.69	18.30	42.61
United States	8.86	4.08	12.84	8.56	4.49	21.35	59.45
Average (unweighted)	4.16	3.04	7.09	6.67	2.70	18.42	51.13

Source: Xavier et al., 2013, pp. 58-59

Appendix 2 Entrepreneurial attitudes and perceptions in the GEM countries in 2012 by phase of economic development

Country	Perceived opportunities	Perceived capabilities	Fear of failure*	Entrepreneurship as a good career choice	High status to successful entrepreneurs	Media attention for entrepreneurship
FACTOR-DRIVEN ECONOMIES						
Algeria	45.67	54.10	35.44	78.94	81.03	47.01
Angola	66.17	72.05	37.94			
Botswana	66.70	70.59	24.79	76.12	73.30	79.43
Egypt	53.72	58.66	32.96	83.01	87.22	63.71
Ethiopia	64.89	69.10	32.66	76.20	91.85	72.88
Ghana	79.29	86.26	18.23	84.02	91.31	82.09
Iran	39.17	54.15	41.42	60.19	72.97	61.04
Malawi	74.29	84.53	12.37			
Nigeria	82.19	87.93	20.96	81.69	76.01	78.14
Pakistan	46.48	48.74	31.24	66.44	67.94	50.75
Palestine	46.14	59.37	40.19	84.56	80.43	70.92
Uganda	80.69	87.69	15.25			
Zambia	77.87	83.75	16.68	67.25	78.67	71.64
Average (unweighted)	63.33	70.53	27.70	75.84	80.07	67.76
EFFICIENCY-DRIVEN ECONOMIES						
Argentina	50.08	63.46	27.02	74.23	66.87	63.41
Barbados	47.01	69.86	17.27			
Bosnia and Herzegovina	19.57	49.11	26.94	80.85	72.30	39.43
Brazil	52.40	53.94	31.05	89.04	86.04	86.17
Chile	64.91	59.91	27.99	69.74	67.78	65.84
China	32.24	37.60	35.82	71.67	76.13	79.82
Colombia	71.80	56.57	32.04	89.22	75.49	68.75
Costa Rica	47.14	63.26	35.26	71.72	71.79	79.04
Croatia	17.15	44.06	36.04	64.18	41.73	39.72
Ecuador	58.55	72.10	32.85	88.11	84.14	78.78
El Salvador	42.74	58.51	41.72	72.86	71.90	61.83
Estonia	45.24	43.19	34.49	54.77	62.54	41.46
Hungary	10.95	39.83	34.28	41.49	74.02	29.30
Latvia	33.05	43.56	36.74	59.66	53.33	53.30
Lithuania	29.99	39.83	35.78	63.12	52.88	37.29
Macedonia	30.79	55.11	39.43	69.59	66.73	64.09
Malaysia	35.69	30.82	36.34	45.59	50.88	62.48
Mexico	44.99	62.34	25.66	56.00	54.14	38.10
Namibia	75.22	74.00	35.15	73.47	75.78	81.89
Panama	38.48	43.34	16.67			
Peru	56.99	65.47	30.36	77.25	73.00	75.52
Poland	20.42	53.89	43.45	67.93	57.08	56.27
Romania	36.73	38.34	40.87	71.15	73.58	55.24
Russia	20.08	23.50	46.51	59.84	63.07	44.65
South Africa	35.47	39.50	30.56	74.15	73.99	72.89



Country	Perceived opportunities	Perceived capabilities	Fear of failure*	Entrepreneurship as a good career choice	High status to successful entrepreneurs	Media attention for entrepreneurship
Thailand	44.61	45.97	50.06	75.67	79.12	84.07
Trinidad & Tobago	59.23	76.06	16.65	77.93	75.67	63.79
Tunisia	32.55	62.18	14.88	87.90	93.92	47.57
Turkey	39.88	49.44	30.38	67.07	76.14	57.46
Uruguay	51.03	57.81	27.18	60.82	59.12	50.82
Average (unweighted)	41.50	52.42	32.32	69.82	68.90	59.96
INNOVATION-DRIVEN ECONOMIES						
Austria	49.21	49.61	35.96	46.42	75.82	
Belgium	33.29	37.11	40.83	62.27	57.38	53.82
Denmark	44.41	31.02	39.26			
Finland	55.33	34.32	36.52	45.11	83.38	68.37
France	37.52	35.66	42.84	64.54	76.82	41.08
Germany	36.16	37.09	41.91	48.92	76.40	49.01
Greece	12.95	50.00	61.29	64.36	68.30	33.05
Ireland	25.55	45.16	35.37	45.41	81.41	61.45
Israel	30.62	29.31	46.76	59.47	72.39	47.44
Italy	19.80	29.97	57.68	66.68	69.74	51.33
Japan	6.37	9.00	53.13	29.67	54.79	52.87
Korea	12.52	26.93	43.01	59.37	69.59	68.06
Netherlands	34.40	42.30	30.45	79.33	65.15	58.33
Norway	64.43	34.37	39.37	50.37	79.53	59.30
Portugal	16.19	46.80	42.30			
Singapore	22.51	26.58	41.63	50.25	62.52	76.72
Slovakia	17.84	49.73	38.32	50.27	74.40	59.43
Slovenia	19.62	51.32	27.28	52.73	71.08	51.08
Spain	13.90	50.38	41.76	63.64	63.71	47.26
Sweden	66.48	36.99	32.61			
Switzerland	35.67	37.34	32.29	44.20	63.46	57.35
Taiwan	38.55	26.38	37.60	70.36	62.85	82.54
United Kingdom	32.82	47.13	36.01	49.79	76.69	46.98
United States	43.49	55.88	32.32			
Average (unweighted)	32.07	38.35	40.27	55.16	70.27	56.08

Source: Xavier et al., 2013, pp. 56-57



Appendix 3 Entrepreneurial Framework Conditions valued most positive (+) and most negative (-), per GEM country and by Geographic Region 2012

SCALE: FROM (-) TO (+)					1 Finance, 2a Nat. Policy — General Policy, 2b Nat. Policy — Regulation, 3 Government Programs, 4a Education — Prim. And Second., 4b Education — Post-School, 5 R&D Transfer, 6 Commercial Infrastructure, 7a Internal Market — Dynamics, 7b Internal Market — Openness, 8 Physical Infrastructure, 9 Cultural and Social Norms											
1	2	3	4	5	1	2a	2b	3	4a	4b	5	6	7a	7b	8	9
SUB-SAHARAN AFRICA																
ANGOLA	+			-	-								+	-		+
BOTSWANA				-	-						-	+	+			+
ETHIOPIA	-	+			-						-		+		+	
GHANA	-		-								-		+		+	+
MALAWI	-				-	+					-	+	+			
NAMIBIA		-			-	+					-				+	+
NIGERIA		-	-								-		+		+	+
SOUTH AFRICA			-	-	-							+	+		+	
UGANDA		-			-						-	+			+	+
ZAMBIA	-									-	-	+	+		+	
MIDDLE EAST AND NORTH AFRICA																
ALGERIA			-			-	+	-					+		+	
EGYPT					-	-	-	-				+	+		+	
IRAN			-	-	-							+	+		+	
ISRAEL		-	-		-							+			+	+
PALESTINE				-	-							+	+	-	+	
TUNISIA		+		-	-								+	-	+	-
LATIN AMERICA & CARIBBEAN																
ARGENTINA	-	-			-								+		+	+
BARBADOS	-				-	+	-	+					+			
BRAZIL		-			-		-	-					+		+	+
COLOMBIA	-	+			-	+							-		+	
COSTA RICA	-		-		-	+							+		+	
CHILE	-	+			-	+	-								+	
ECUADOR	-	+	-		-	+									+	
EL SALVADOR	-	-				+	-								+	+
JAMAICA		-	-			+	-								+	+
MEXICO	-		-		-	+									+	+
PANAMA	-				-	+	-						+		+	
PERU	-				-	+	-								+	+
TRINIDAD&T		-	-		-	+						+			+	
URUGUAY	-				-	+						+	-		+	
ASIA PACIFIC SOUTH ASIA																
CHINA	-			-	-								+		+	+
INDIA			-								-		+		+	+
JAPAN	-		-										+	+	+	
REPUBLIC OF KOREA	-	+			-								+	-	+	
MALAYSIA	+		-		-						-		+		+	
PAKISTAN		-		-	-							+	+		+	
SINGAPORE			+	+	-						-			-	+	
TAIWAN		-									-		+		+	+
THAILAND					-						-		+	-	+	+
NON EUROPEAN UNION																
BOSNIA & HZ			-								-	+	+	-	+	
CROATIA			-	-		-						+	+		+	
MACEDONIA	-				-							+	+	-	+	
NORWAY	-	-				+						+		-	+	
RUSSIA	-			-							-	+	+		+	
SWITZERLAND	-				-						+	+	-		+	
TURKEY	-				-						-		+		+	+
EUROPEAN UNION																
AUSTRIA				+	-							+	-		+	-
BELGIUM			-		-							+		+	+	-
DENMARK	-	-		+							-	+			+	
ESTONIA		-	+		-	-							+		+	
FINLAND	-		+		-						-		+		+	
FRANCE		+		+	-						-				+	-
GERMANY				+	-						-	+			+	-
GREECE	-	-			-							+	+		+	
HUNGARY		-	-									+	+		+	
IRELAND	-			+	-							+	-		+	
ITALY			-	-	-							+	+		+	
LATVIA			-								-	+	-		+	



LITHUANIA			-		-			+	+	-	+	
NETEHERLANDS	-	-					+	-	+		+	
POLAND			-		-		-	+				+
PORTUGAL		-	-	+	-			+			+	
ROMANIA	-	+	-		-				+		+	
SLOVAKIA		-			-	-		+		+	+	
SLOVENIA		-	-		-			+	+		+	
SPAIN	-			+	-		-	+			+	
SWEDEN				+	-	-			+		+	
UNITED KINGDOM	-			-	-		+	+			+	
UNITED STATES												
USA			-	-	-		+				+	+

Source: Xavier et al., 2013, pp. 38-39

Appendix 4 GEM National Teams - 2012

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