

Entrepreneurship and economic growth in emerging markets: An empirical analysis

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ABSTRACT

Policy makers must identify the priorities in which resources should be invested in order to stimulate growth. This requires the identification of drivers of economic growth. Numerous researchers have pointed out that entrepreneurship is one of the key drivers of growth in the developed countries. However, sometimes entrepreneurship can be “unproductive”, and even “destructive”, because different forms of entrepreneurship do not have the same impact. Our paper investigates the impact of different types of entrepreneurial activities on growth in the emerging markets in order to identify the productive forms of entrepreneurship. The regression results, from panel data analysis of 20 emerging countries for the period of 2011–2018, showed that total entrepreneurial activity has a positive impact on economic growth in the emerging markets, but this impact is not statistically significant. The greatest and significant contribution to economic growth has high-growth expectation entrepreneurship. The influence of innovative entrepreneurship on economic growth is positive, but statistically insignificant, while impact of necessity-driven entrepreneurship is negative. Necessity-driven entrepreneurship and informal entrepreneurship are unproductive and destructive forms of entrepreneurship in the emerging markets.

KEYWORDS

entrepreneurship, economic growth, entrepreneurial activity, emerging markets

JEL CLASSIFICATION INDICES

M13, O11

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1. INTRODUCTION

A large number of economists are trying to answer the questions: How to enhance economic growth and what are the drivers of growth? (e.g., Audretsch – Fritsch 2002; Valliere – Peterson 2009; van Stel et al. 2018). From 1970s onwards, an increasing number of scholarly papers appeared, pointing to the importance of entrepreneurship for economic growth (Cornelius et al. 2006). These studies clarified that, entrepreneurs may introduce important innovations, by entering markets with new products or production processes; increase productivity, by increasing competition; and enhance knowledge of what is technically viable and what consumers prefer, by introducing variations of existing products and services in the market (van Stel et al. 2005; Talić et al. 2020; Janjić et al. 2021).

A rising share of entrepreneurship in the economic activity, in most developed countries led to a change of economists' perception regarding the drivers of economic growth. Additionally, many empirical studies have proved the positive impact of entrepreneurship on economic growth (Carree – Thurik 2003; Acs – Varga 2005). For this reason, many developed countries focused on a policy which strongly encouraged the advancement of entrepreneurship. However, as Baumol (1990) already explained entrepreneurship can sometimes be *unproductive*, and even *destructive*, because some forms of entrepreneurship have different impact on economic growth. Developed countries primarily started to focus their development policies on stimulation of *high-growth expectation* entrepreneurship (HEA), since empirical research has proven that this form of entrepreneurship is productive and has the greatest contribution to growth (Valliere – Peterson 2009; van Stel et al. 2018; Ivanović-Đukić et al. 2019).

The situation is much different in the emerging markets. Emerging markets are characterized by a completely different macroeconomic environment, compared to the developed countries. Therefore, the dilemma arises, whether the same measures applied in the developed countries can be applied in the emerging markets. There is no strong empirical evidence that the link between entrepreneurship and economic growth in the emerging markets is statistically significant, and what forms of entrepreneurship are productive.

The subject of this paper is to examine empirically the impact of different forms of entrepreneurship on growth and to propose measures. Our starting hypothesis is that entrepreneurship development can significantly contribute to the economic growth in the emerging markets, but not all forms of entrepreneurial activity are productive. This hypothesis will be tested using panel data from the Global Entrepreneurship Monitor (GEM) for the 20 emerging markets for the period from 2011 to 2018.

The paper first gives an overview of literature that links entrepreneurship with economic growth. The next part of the paper explains the data and methodology. The final part of the paper presents the results and discussion, followed by the conclusion and recommendations to macroeconomic policy makers.

2. LITERATURE REVIEW

2.1. Relationship between entrepreneurship and economic growth in the emerging markets

There are research articles pointing to the importance of entrepreneurship for economic growth in the emerging markets and transition economies (McMillan – Woodruff 2002; Kiss et al. 2012;



Ivanović-Đukić et al. 2018). These studies explained that entrepreneurs act in pursuit of their own profits, but at the same time, they may generate benefits to the broader society, by creating new jobs, reducing poverty, intensifying competition, introducing innovation and increasing productivity (Rotar-Južnik 2014; Aničić et al. 2017). The importance of entrepreneurship for the transition economies lies in the fact that it enables the creation of an open competitive market (Megginson – Netter 2001), it limits market power of the state-owned enterprises, and stimulates transition of dictatorship to a free-market-oriented economy, with increasing economic freedom and gradual integration with the global market (McMillian – Woodruff 2002; Baranyai – Kozma 2019). The particular importance of entrepreneurs in the emerging markets is that they are very dynamic, quick to learn, and prone to rapid change (Čučković – Bartlett 2007). These changes make possible progress through evolution and change of dominant concepts (Yamakawa et al. 2008).

Previous research has shown that the number of papers examining the particular aspects of entrepreneurship is increasing, but empirical research analyzing the link between entrepreneurship and economic growth in the emerging markets is very scarce. For example, Bruton et al. (2008) found that only 43 articles (out of 7,482), published in leading journals during the period of 1990–2008, dealt with entrepreneurship. Nonetheless, a recent meta-analysis shows that research on entrepreneurship in the emerging markets has grown significantly in the last several years. Kiss et al. (2012), providing a study of 88 journal articles published over the last 2 decades revealing entrepreneurship in 51 emerging markets, concluded that studies of entrepreneurship in the emerging markets are a vibrant and rapidly growing stream, but these studies are not geographically focused, and topically and methodologically are very diverse.

Geographically the most frequent are papers examining the entrepreneurship development in Russia, China, India and Taiwan. For example, Ojala – Isomäki (2011), analyzing 48 refereed empirical articles, concluded that entrepreneurs in Russia have many financial and institutional obstacles. Puffer et al. (2010), examining the relationship of institutions and entrepreneurship in Russia and China, concluded that full convergence toward entrepreneurs' reliance on formal institutions may not readily occur due to the embeddedness of informal institutions. Ramesh (2018) compared entrepreneurship in China and India, and concluded that entrepreneurship was stronger in China than in India. The main sources are reforms in China (in the field of infrastructure, education, property rights and ownership restructuring), which have provided an incentive for the Chinese to embrace their unique cultural entrepreneurial skills.

Oppositely, the Middle East and North Africa, followed by Africa, South Asia, Latin America and the Caribbean, have been the least frequently studied regions of the world regarding entrepreneurship. Then again, Europe and Central Asia have received the most attention (with the most common studies of Russia, Poland and Hungary), followed by East Asia and the Pacific (with the dominant studies of China, Taiwan, South Korea and Singapore). Considering that studies of entrepreneurship in the emerging markets have centred largely on the advanced economies in Europe and Central and East Asia, and that other major regions of the world have been relatively neglected, it is difficult to generalize findings, and make the reliable comparisons of results based on either region or level of development (Kiss et al. 2012).

The next problem is the diverseness of topics covered in the papers studying entrepreneurship in the emerging markets. There is an absence of theoretical anchors, the most papers develop specific theories and analyse specific aspects of entrepreneurship in the emerging markets. The dominant perspectives are institutional theory or institutional economics



(Kiss et al. 2012). For example, Kim – Le (2014) examined how institutional conditions provide assurances that entrepreneurs seek when creating businesses. Similarly, Estrin et al. (2018) provided the cross-country comparisons of the effects of institutions and financial system on entrepreneurial activity in the emerging markets. Other commonly used perspectives include the impact of returning entrepreneurs, the resource-based view or the dynamic capabilities approach, and the international new venture framework.

The most serious problem associated with these papers is methodology. The most studies are *qualitative*. These studies are very useful because they explain the specifics of the connection between entrepreneurship and economic growth in the context of emerging markets, but their conclusions have not been empirically verified. Unfortunately, the number of studies that empirically examine the link between entrepreneurship and economic growth in the emerging markets is extremely small. For example, Zolfaghari et al. (2013) found a relatively small number of empirical research in their meta-analysis. Quantitative studies are mostly survey based, but a small number of studies use archival data or longitudinal approaches. Even these static approaches are problematic as they are unlikely to capture complex entrepreneurial processes, which happen over time (Bygrave 2007). Consequently, the dynamic interconnections between entrepreneurship and economic growth cannot be adequately understood via the static approaches employed in the most research in entrepreneurship to date. For that reason, Zolfaghari et al. (2013:146) conclude that: “entrepreneurship in emerging economies is still an understudied subject and, in the future, we should incorporate many more studies in our analysis”. This is in line with the findings by Kiss et al. (2012) that further integrative studies are needed to get a better overview of contextualized knowledge in this field.

The further serious limitation is that the conclusions of empirical research are confusing. Despite the fact that most theoretical studies explain that entrepreneurship has a significant impact on economic growth, the results of empirical studies prove the opposite. For example, research conducted by Valliere – Peterson (2009), based on a sample of 20 emerging countries, does not confirm that entrepreneurship significantly affects economic growth. A study, conducted by Tang – Koveos (2004), shows a negative correlation between entrepreneurship and economic growth in the emerging markets. Also, Zaki – Rashid (2016), empirically proved that entrepreneurship had a statistically significant negative impact on economic growth, on a sample of 7 emerging economies. Sabela et al. (2014) confirmed that entrepreneurship had a positive, but statistically insignificant influence on the GDP growth rate in Palestine.

Based on the above mentioned, we can conclude that Schumpeter’s view that “entrepreneurship is the main driver of economic growth” has not been empirically proven in the emerging markets. As Koster – Kumar (2008:123) said “It is still very much an open question whether entrepreneurship has the same role in emerging markets as it has in the developed world”.

2.2. Identification of productive entrepreneurship

The most commonly cited classification regarding forms of entrepreneurship is the one based on the motives, which drive people to start a business, i.e., the use of opportunities or necessity. This classification has also been accepted in the Global Entrepreneurship Monitor (GEM) research¹.

¹GEM is the global research source that collects data on entrepreneurship directly from individual entrepreneurs (<https://www.gemconsortium.org>).



In the GEM database, there are two different types of entrepreneurship: opportunity-driven and necessity-driven. *Opportunity-driven entrepreneurial activity* (OEA) includes all start-ups and newly established businesses (younger than 42 months), which emerge as a result of perceived business market opportunities. *Necessity-driven entrepreneurial activity* (NEA) occurs in a situation where individuals perceive entrepreneurship as a last resort and start a business because they either do not have other employment options, or such options are unsatisfactory (Bosma – Kelly 2019). Furthermore, GEM notes some other classifications of entrepreneurship as well. Thus, for example, there is a classification of entrepreneurship based on the growth expectations, according to which all entrepreneurs are divided into three groups: entrepreneurs with low-, medium- and high-growth expectations, in relation to the number of employees that entrepreneurs plan to hire in the next 5 years. Entrepreneurs anticipating 6 or more hires are the medium-growth-oriented entrepreneurs; those anticipating up to 6 hires are the low-growth-oriented, while those expecting to employ at least 20 employees in the next 5 years are the high-growth-oriented entrepreneurs (Bosma – Kelly 2019). Besides, given the enormous importance of innovation, GEM has introduced the category of *innovative entrepreneurship* since 2011. Innovative entrepreneurs are those whose products or services are new to all or some customers, and for which there are few or no competitors.²

Previous research shows that the influence of *total entrepreneurial activity* (TEA) on economic growth varies among countries due to the differences in per capita GDP levels and the stages of economic development (Carree et al. 2007). Some research shows that relationship between entrepreneurship and per capita income appears to be “U-shaped”. Countries with low per capita income (developing) have high nascent entrepreneurship rates, same as the countries with high per capita income (developed). Countries in-between have the lower nascent entrepreneurship rates (Wennekers et al. 2010).

Acs et al. (2017) explained that such an analysis only takes into account the number of entrepreneurs (quantity) and not the quality of entrepreneurship. They suggested that the quality of entrepreneurship must be taken into account in order to examine the contribution of entrepreneurship to economic growth. This can be achieved by linking TEA with the Ease of Doing Business Index³, the Index of Economic Freedom⁴ and the Global Competitiveness Index (GCI)⁵. The Doing Business Index explains the development level of institutions, the quality of governance and the access to capital and other resources, etc. The low level of this index indicates the difficulties in starting a business, and hence, more people will be self-employed. By strengthening institutions and changing the incentive structure, entrepreneurial activity is progressively shifted toward the productive entrepreneurship, thus strengthening economic development.

²According to Schumpeter (1934), innovative entrepreneurship is the recognition and utilization of opportunities in such a way that it provides ‘new combinations’ (innovation): a) the introduction of new products or a new quality of products, b) the introduction of a new method of production which is unproven, c) the opening up of a new market, d) the provision of a new source of supply of raw materials, and e) the carrying out of a new organization of industry. Innovation incessantly destroys the old structure, thus creating a new one (creative destruction), which makes better ways to meet the existing demands.

³<https://www.worldbank.org/en/news/statement/2021/09/16/world-bank-group-to-discontinue-doing-business-report>.

⁴<https://www.heritage.org/index/>.

⁵<https://www.weforum.org/reports/the-global-competitiveness-report-2020>.



The Index of Economic Freedom measures the freedom of choice. In countries with low per capita income, there are a lot of self-employed people, because there are no other employment opportunities. As countries develop increasingly, people leave self-employment and join organizations. Therefore, the quantity of entrepreneurship declines as countries develop. Finally, the connection between TEA and GCI explains whether entrepreneurs contribute to the growth and prosperity of a country. If we consider all the listed indicators, the relationship between entrepreneurship and economic development appears to be mildly “S-shaped” (Acs et al. 2017). The link between all indicators and the TEA is positive in the developed countries; thus, entrepreneurship contributes significantly to economic growth. This relationship can be explained by the fact that productive forms of entrepreneurship are dominant in TEA.

Previous research, conducted in the developed countries, shows that innovative entrepreneurship is the most productive form of entrepreneurship (Bell 2013). For example, van Stel et al. (2013) investigated the impact of innovative entrepreneurs on regional economic development in the Netherlands. They proved that innovative entrepreneurs initiate a process of “creative destruction” elaborated by Schumpeter. The emergence of new innovative firms, with new products and services that compete with the existing businesses, contributes to the survival and growth of the most competitive companies, thus leading to regional economic development (van Stel – Koster 2011). Additionally, the most successful, innovative entrepreneurs achieve high rates of growth and are designated as high-growth firms (van Stel et al. 2018). Similarly, Bashir and Akhtar (2016) concluded that innovative entrepreneurship has great contribution to economic growth, investigating the role of innovative entrepreneurship in economic development in the G20 countries.

There are differences between innovative entrepreneurs. Some of them offer products or technology that is new to the local or national market. The entry of such new firms into the market stimulates existing firms to do business better (van Stel et al. 2018). In addition, they have a very significant impact on economic growth, by improving the dissemination of knowledge (Wong et al. 2005), introducing innovations on the national market and improving national competitiveness (van Stel et al. 2013; Janjić – Rađenović 2019). Nevertheless, they are oriented primarily on the national market, which is limited, and they can expect average growth rates. On the other hand, high-growth-oriented entrepreneurs, intended to search for repeatable and scalable business models – “start-ups”, have extremely important roles for economic growth (Steve – Dorf 2014). The enormous global market allows these entrepreneurs to attain extremely high income and growth rates in a very short time (Ries 2011). At the same time, they employ a huge number of new workers and create enormous added value. Prior research suggests that in the developed countries, the HEA (not new firms in general) is a significant contributor to GDP growth (van Stel et al. 2018). Therefore, public policy in the developed countries is focused on promotion of the HEA by establishing favourable conditions for knowledge transfer, including adequate intellectual property protection, a well-functioning venture capital market, and the presence of clusters and entrepreneurial ecosystems, etc.

On the other hand, NEA has no significant contribution to economic growth in the developed countries, and cannot be considered as a productive form of entrepreneurship (Acs – Varga 2005; Poschke 2013). For example, Valliere – Peterson (2009) indicated that HEA entrepreneurs seem to create growth, OEA entrepreneurs probably diffuse innovation, and NEA entrepreneurs only provide employment.

Macroeconomic environment in the emerging markets is completely different compared to the developed countries. Therefore, the dilemma arises, whether entrepreneurship contribute



significantly to economic growth, as well as, whether the same forms of entrepreneurship are productive as in the developed countries.

2.3. Productive entrepreneurship in the emerging markets – research hypotheses

Emerging markets are in-between developed and developing countries by GDP and stages of economic development (Wennekers et al. 2010). In addition, macroeconomic characteristics create a specific framework for the development of entrepreneurship, and provide a unique, quasi-experimental setting for testing the existing theories. The institutional development, as well as, the quality of governance is lower than in the developed countries, and this entails many problems. The most of the emerging markets face similar problems, such as: the presence of a grey economy, corruption, unfair competition, non-incentive tax system, discriminatory legislation, unstable legal and political system and underdeveloped market economy mechanisms, etc. (Čučković – Bartlett 2007; Guégan et al. 2014). These problems create numerous barriers for starting and growing business. For example, high risks posed by economic, political and regulatory uncertainty very often limit the incentive for potential entrepreneurs to innovate. Underdeveloped financial market makes it difficult for entrepreneurs to raise funds, which is necessary for seizing the recognized market opportunities. Markets are often imperfect. Besides, inappropriate property rights, and weak contract enforcement make returns on innovations risky, while poor infrastructure, low per capita incomes, and institutional barriers, make it difficult for innovations to spread (Szirmai et al. 2011). All these enable a large participation of unproductive and destructive entrepreneurial activities in the TEA.

Nevertheless, entrepreneurs in the emerging markets often resort to a wide variety of unconventional techniques and strategies, for example, to obtain finance or attract consumers. Even technological lagging behind is not necessarily a disadvantage, as long as, the absorptive capacity and creativity of entrepreneurs with respect to new technologies is sufficiently developed. This absorptive capacity goes beyond mere imitation, and may result in new, and even disruptive, innovations without having to bear all the costs and risks of investing in developing new knowledge (Szirmai et al. 2011). We believe that entrepreneurship (TEA) has a positive impact on economic growth in the emerging markets. Our first hypothesis is:

H1: Entrepreneurship development significantly contributes to the economic growth in the emerging markets.

Previous research showed that family firms have an important role in economic growth, in many emerging markets (Prabhu – Jain 2015; Tripathi – Brahma 2018). Very often, citizens who return to their home country, after gaining experience in developed commercial environments, become entrepreneurs in the emerging markets (Wright et al. 2008). Many new ventures, which they established, are not innovative in terms of knowledge that exists in the developed economies, but they are new in their national markets. Furthermore, since the emerging markets are characterized by specific consumer behaviour in diverse segments (unmet consumer needs, on one side, and difficulties in finding early adopters, on the other side), entrepreneurs can succeed by offering innovative products or technological solutions (that are adjusted to the specific consumer requirements), or by finding innovative marketing methods to reach the consumers first (Thukral et al. 2008). For those reasons, the innovative entrepreneurship has rapid growth in the emerging markets in recent years (Prabhu – Jain 2015). Additionally, there is a highly-



skilled and low-cost labour in many emerging markets. Many of them are enthusiastic in finding innovative solutions to the problems that people have worldwide. Consequently, the offering of a large number of innovative high-tech products is rising, as well as, the presence of many fast-growing entrepreneurs (Majumdar et al. 2010).

Recent global reports show that the emerging markets rapidly develop innovative and high growth entrepreneurship. For example, the GEM 2018/2019 shows that innovation, among entrepreneurs globally, is most prevalent in India (47%), and Chile (48%), as well as, that the highest proportions of entrepreneurs, projecting to create 6 or more jobs in the next 5 years, are in the United Arab Emirates (UAE) and Colombia (Bosma – Kelley 2019). In addition, Global Entrepreneurship Index (GEI) shows that India has placed itself as a regional leader in the product and technology innovative entrepreneurship (Acs et al. 2017). According to Global Innovation Barometer 2018, the emerging markets catch up aggressively the leading countries in innovative entrepreneurship, and China and Japan have become alternative hotspots for global innovation – confirming that innovation is disrupting the global competitive landscape at the regional, as well as, at the industry level. Many emerging markets (China, India, Brazil, Malaysia and Mexico) recognize their own markets as being a more innovation conducive environments than they were earlier. Also, Global Startup Ecosystem Report (Starup Genome 2017) shows that several start-up ecosystems in the emerging markets (Beijing 4th, Tel Aviv 6th and Shanghai 8th) have excellent performance, and reach high growth rates, ranking them among the top 20 globally. This demonstrates that the number of fast growing, innovative entrepreneurs has been increasing in the emerging markets during the previous years. Given the findings of empirical research in the developed countries, and global reports, which show the progressive growth of innovative entrepreneurship in the emerging markets, it can be expected that HEA and IEA, as the productive forms of entrepreneurship, have a great contribution to economic growth in the emerging markets. Hence, our second hypothesis is:

- H2: High growth-oriented entrepreneurship and innovative entrepreneurship are the productive forms of entrepreneurship in the emerging markets, and they have a positive impact on economic growth.

Another characteristic of entrepreneurship in the emerging markets, is a large number of necessity-driven entrepreneurs (NEA) (Bosma – Kelley 2019). In the former centrally planned economies, the significant component represents entrepreneurs who were created by privatization of state-owned enterprises (Carlin 2001). A lot of them were NEA (Bosma – Kelley 2019). The huge number of employees in large state-owned enterprises lost their jobs after privatization and perceived entrepreneurship as a last resort (McMillian – Woodruff 2002). They do not have either previous entrepreneurial experience or entrepreneurial spirit. However, their entrepreneurial skills may not matter much for the functioning of their businesses (Acs – Varga 2005; Acs – Szerb 2009). They only had limited personal or family savings and lack of access to external finance, which severely hampered the growth prospects of their firms (Desai 2009). Therefore, they usually operated on a small scale, involving simple business activities, which had no significant impact on GDP growth. Very often, their businesses were replicative and took the share of the others' pie instead of increasing the size of the own pie.

Prior research suggests that NEA has smaller contribution to economic growth compared to the other forms of entrepreneurship in the developed countries (Valliere – Peterson 2009). This can be explained by the fact that companies which are NEA, are on average smaller, have lower



growth expectations, and very often exist shorter (Poschke 2013). Hence, NEA may have a significant contribution to employment, as well as, in solving social problems, but its contribution to GDP growth is not significant.

Finally, the most significant specificity of entrepreneurship in the emerging markets is *informal entrepreneurship*. In many emerging markets, government officials very often interfere in starting and running entrepreneurial businesses, by political networks, directing state financial incentives and inspection supervision, etc. In addition, the presence of a grey economy in many emerging markets encourages the development of informal entrepreneurship (Yamakawa et al. 2008; Tracey – Phillips 2011). The entrepreneurs do not register their business with the government and entrepreneurship become informal (GDP estimates of informal economies unsurprisingly translate to approximately 65% of all employment in Asia, 51% of employment in Latin America, and 72% of employment in North/Sub-Saharan Africa (Webb et al. 2012)). Informal entrepreneurship contributes to the poverty reduction, but it probably does not have a positive impact on economic growth. Informal firms may produce unfair competition to formal firms, and deprive governments of potential revenue through income and labour tax (González – Lamanna 2007). We believe that informal entrepreneurship is unproductive. Hence, our last hypothesis is:

- H3: The necessity-driven entrepreneurial activity (NEA) and informal entrepreneurship⁶ are unproductive forms of entrepreneurship in the emerging markets and have a negative impact on economic growth.

3. DATA AND METHODOLOGY

3.1. Research context

The emerging markets account for about 25% of the global GDP, and 50% of the world's population (China alone accounting for 83% of the global increase in metals consumption, and 48% of the increase in energy consumption) (World Bank 2018). The World Bank predicts that the emerging markets will account for half of the world's economic growth by 2025 (Lin 2011). This is a big challenge, considering the fact that the term emerging market is not precisely defined; there are no generally accepted criteria for emerging market classification; and there is no unique list of countries, which are emerging markets.

World Bank economist, Antoine van Agtmael used the term emerging markets in the 1980s for the first time. He used it to describe the less developed countries (Bruton et al. 2013). The early studies in this area explained that the emerging markets were characterized by underdeveloped market-supporting institutions, including weak laws, and poor enforcement capacity of the formal legal institutions, referred to as institutional voids (Khanna – Palepu 2000). The differences between these economies and the underdeveloped countries should be made, because they are characterized by rapid economic development and government policies favouring economic liberalization through the adoption of a free market system.

⁶Due to the lack of data, the impact of informal entrepreneurship on economic growth cannot be examined.



Taking all these elements together [Hoskisson et al. \(2000\)](#) defined emerging markets as countries with low-income, rapid-growth and economic liberalization. Since then, many different explanations of emerging markets have been created, emphasizing the significance of the various elements, which characterize them. Many scientists emphasize that evolution and change are dominant concepts in the definition of an emerging market, because the most of the emerging markets carry out serious institutional and organizational changes ([Peng 2001](#); [Aulakh – Kotabe 2008](#); [Yamakawa et al. 2008](#); [Bruton et al. 2013](#)).

In accordance with this explanation, we will accept the following definition: “Emerging market is an economy transitioning from a dictatorship to a free-market-oriented-economy, with increasing economic freedom, gradual integration with the global marketplace and with other members of the GEM (Global Emerging Market), an expanding middle class, improving standards of living, social stability and tolerance, as well as, an increase in cooperation with multilateral institutions” ([Kvint 2009](#): 27).

The emerging markets include very diverse countries in different geographic areas such as, East Asia, Eastern Europe and Latin America ([Bruton et al. 2008](#)). Each of these countries is different, as regards history, size, the characteristics of macroeconomic environment and economic development paths, etc., but, all of these economies have many similarities, and very often are treated as a uniform bloc.

3.2. Sample characteristics

There is no universal consensus on which countries qualify as emerging markets. For example, Morgan Stanley Capital International Emerging Market Index currently qualifies 24 developing countries as emerging markets – including Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates ([MSCI 2019](#)). The International Monetary Fund (IMF) classifies 23 countries as emerging markets, Standard and Poor’s (S&P) classifies 23, while Dow Jones classifies 22 countries as emerging markets. We have selected 20 countries that are common to these lists. The additional reason for inclusion of these countries in the research is the availability of data regarding productive forms of entrepreneurship. The list of selected countries is presented in [Table 1](#).

3.3. Research model and variables

The model attempts to predict the dependent variable, GDP growth, from total entrepreneurial activity (TEA), innovative entrepreneurship (IEA), high-growth expectation entrepreneurship (HEA), and necessity-driven entrepreneurship (NEA) based on data for the 2011–2018 period. The model controls for capital (GDP per capita and inbound foreign direct investment per capita), and labour (population and unemployment). The list of 9 selected variables is presented in [Table 2](#).

We explore the impact of entrepreneurship on long-term economic growth by employing a regression model that is adapted from [van Stel et al. \(2005\)](#). The average annual growth rate of real GDP is chosen as the dependent variable. Entrepreneurship is measured as GEM total entrepreneurial activity rate, defined as the percentage of individuals aged 18–64, who are either a nascent entrepreneur or an owner-manager of a new business (younger than 42 months). We



Table 1. Countries included in the study and GNI per capita in 2018

| | Country | GNI per capita | | Country | GNI per capita |
|----|-----------|----------------|----|-----------------|----------------|
| 1 | Argentina | 12,370 | 11 | Latvia | 16,740 |
| 2 | Brazil | 9,140 | 12 | Malaysia | 10,460 |
| 3 | Chile | 14,670 | 13 | Mexico | 9,180 |
| 4 | China | 9,470 | 14 | Peru | 6,530 |
| 5 | Colombia | 6,190 | 15 | Poland | 14,150 |
| 6 | Estonia | 20,940 | 16 | Russia | 10,230 |
| 7 | Greece | 19,600 | 17 | Slovak Republic | 18,330 |
| 8 | Hungary | 14,590 | 18 | South Africa | 5,750 |
| 9 | India | 2,020 | 18 | Thailand | 6,610 |
| 10 | Indonesia | 3,840 | 20 | Uruguay | 15,650 |

Source: The World Bank (2018), <https://data.worldbank.org/indicator/ny.gnp.pcap.cd>.

Note: GNI based at Atlas method (current US\$).

Table 2. List of variables

| | Variables | Type | Model |
|---|--|-----------|-------|
| 1 | GDP growth rate (r) | Dependent | All |
| 2 | GDP per capita (GDPpc) | Control | All |
| 3 | Inbound FDI per capita (FDIpc) | Control | All |
| 4 | Population (POP) | Control | All |
| 5 | Unemployment (UNE) | Control | All |
| 6 | Total early-stage entrepreneurial activity (TEA) | Predictor | M1 |
| 7 | High-growth-expectation entrepreneurship (HEA) | Predictor | M2 |
| 8 | Innovative entrepreneurship (IEA) | Predictor | M2 |
| 9 | Necessity-driven entrepreneurship (NEA) | Predictor | M3 |

also employ GEM indicators of high-growth-expectation entrepreneurship – HEA, i.e. the percentage of entrepreneurs who expect to employ at least 20 people 5 years from now; innovative entrepreneurship, as percentage of those involved in TEA who indicate that their product or service is new to at least some customers and that no businesses offer the same product (Bosma – Kelley 2019); and NEA, as percentage of those involved in TEA who perceive entrepreneurship as a last resort and start a business because they either do not have other employment options, or such options are unsatisfactory. As these GEM indicators are expressed as a percentage of TEA, we multiply them by TEA, so that our independent variables are



expressed as percentages of the adult population, similar to TEA itself. All independent variables in the model are included with a two-year lag. As control variables, we include the level of GDP per capita – to capture catching-up effects, inbound foreign direct investments per capita, population and unemployment rate. These data are taken from World Bank. Missing values for some of the indicators are estimated based on the values of these indicators in the previous years.

4. RESULTS AND DISCUSSION

4.1. Results

Regression analysis was used to examine the impact of entrepreneurship on growth. We have three regression models. Model 1 analyses the impact of TEA on GDP growth, in general. Model 2 analyses the differences in contribution of the HEA and IEA and Model 3 analyses the differences in contribution of NEA.

Due to the fact that we have panel data before proceeding with the interpretation of the regression analysis results, it is necessary to decide which model best describes the analysed data – The Pooled Regression Model (Pooled), the Fixed Effect Model (FEM) or the Random Effect Model (REM). Therefore, several tests are performed. The results of the conducted tests are presented in Table 3.

Based on the obtained results it is determined that REM is appropriate for fitting analysed data. The results of the conducted regression analysis are presented in Table 4.

Model 1 shows that an increase in TEA leads to an increase of economic growth rate. If the TEA increases by 1%, the GDP growth rate will increase by 0.176% after two years, holding all other variables constant. Nevertheless, this impact is statistically insignificant. It means that TEA cannot significantly contribute to economic growth in the emerging markets. This leads to the rejection of our first hypothesis. As model shows, population increase leads to an increase in GDP growth rate, while the unemployment increase leads to a decrease in the GDP growth rate. In this REM, the individual specific error can explain 56.15% of the entire composite error variance. The model is statistically significant (Wald test).

According to Model 2, HEA has a positive and statistically significant impact on economic growth. If the HEA increases by 1%, the GDP growth rate will increase by 0.53%, *ceteris paribus*. The contribution of IEA to economic growth is lower than the contribution of HEA (0.079), however its impact, although positive, is statistically insignificant. As in the Model 1, population

Table 3. Test results for choosing the appropriate model

| Model | F-test H_0 : Pooled, H_1 : FEM | Breusch-Pagan LM H_0 : Pooled, H_1 : REM | Hausman H_0 : REM, H_1 : FEM |
|---------|---------------------------------------|---|-------------------------------------|
| Model 1 | 6.93 (0.0000) | 60.15 (0.0000) | 6.46 (0.1674) |
| Model 2 | 3.30 (0.0000) | 25.82 (0.0000) | 0.67 (0.9843) |
| Model 3 | 6.49 (0.0000) | 55.33 (0.0000) | 6.52 (0.1636) |

Note: *p* values in parentheses.

Source: Authors' calculations.



Table 4. Regression results

| | Model 1 | Model 2 | Model 3 |
|-----------|---------------------|----------------------|-----------------------|
| Constant | 2.0992 (1.11) | 3.8381* (2.78) | 2.9840** (2.20) |
| GDPpc | 0.0001 (1.27) | -0.0001 (-0.29) | 0.0001 (1.33) |
| FDIpc | -0.0001 (-0.77) | -0.0001 (-0.97) | -0.0001 (-0.67) |
| POP | 3.37e-09* (3.03) | 2.47e-09** (2.44) | 3.27e-09* (3.21) |
| UNE | -0.1837* (-3.60) | -0.1738* (-3.58) | -0.1770* (-3.71) |
| TEA | 0.176 (0.40) | | |
| HEA | | 0.534** (2.25) | |
| IEA | | 0.079 (0.37) | |
| NEA | | | -0.1447*** (-1.89) |
| Θ | 0.6607 | 0.5383 | 0.6495 |
| P | 0.5616 | 0.3158 | 0.5434 |
| Wald test | 35.00* | 33.62* | 40.34* |

Notes: t values in parentheses.

*, **, *** at 0.01, 0.05, and 0.10 significance level, respectively.

Source: Authors' calculations.

increase has a positive effect on the GDP growth rate, while the unemployment increase has a negative effect on the GDP growth rate. In this REM, the individual specific error can explain 31.58 per cent of the entire composite error variance, and this model is statistically significant as confirmed by the Wald test. Based on these results, we can only partially accept the second hypothesis. It means that HEA is a productive form of entrepreneurship in the emerging markets.

Model 3 analyses the effects of NEA on the economic growth. The results show that an increase in NEA by 1% leads to a decrease in GDP growth rate by 0.145% in two years, at 0.10 level of significance. In line with the previous two models, population increase has a positive effect on the GDP growth rate, while the unemployment increase has a negative effect on the GDP growth rate. In this REM, the individual specific error can explain 54.35% of the entire composite error variance, and this model is statistically significant as confirmed by the Wald test. Based on these results we can accept the third hypothesis. It means that NEA is not a productive form of entrepreneurship in the emerging markets.



4.2. Discussion

Our findings confirm that entrepreneurship has a positive effect on growth, but this impact is not statistically significant. This is in accordance with the result of prior studies (Valliere – Peterson 2009; Sabel et al. 2014; Zaki – Rashid 2016), but contrary to the recent theoretical views (Szirmai et al. 2011; Ramesh 2018; Estrin et al. 2018). This can be explained by the fact that the macroeconomic environment in the emerging markets did not significantly changed during last years, and forms of unproductive entrepreneurship are still dominant in TEA. For that reason, TEA have a significant contribution to employment as well as in solving social problems, but their contribution to GDP growth is not significant.

Our results show that HEA is the only productive form of entrepreneurship in the emerging markets. This is similar with the result of the studies conducted in the developed countries, but different compared to the results obtained by prior research in the emerging markets, for example, Valliere and Peterson (2009) concluded that the impact of HEA on economic growth is negative and insignificant. It can be explained by the fact that the economic environment has been improved in the emerging markets in recent years, which has become stimulative for HEA. The number of these entrepreneurs is increasing rapidly, they are creating great added value and employing a huge number of workers, thus contributing to an increase in economic growth. This is confirmed by the large number of successful start-up ecosystems, especially in China.

Innovative entrepreneurship has also positive influence on economic growth, but its impact is statistically insignificant. It is unexpected and different compared to the developed countries (Salgado – Banda 2007; Bashir – Akhtar 2016). It can be explained by the fact that the macroeconomic environment in the emerging markets is specific. A lot of new ventures, which are innovative for the emerging markets, are not innovative in terms of knowledge that exists in the developed economies. They cannot take advantage of the global market as in the case with IEA in the developed countries.

Impact of NEA is negative and statistically insignificant, as we expected. Companies run by entrepreneurs out of necessity, are on average smaller and have lower growth expectations, exist shorter. Such entrepreneurs take a share of other's pie of GDP instead of increasing the size of its own GDP. For that reason, NEA is unproductive or even destructive in the emerging markets. This is in accordance with the result of the studies conducted in the developed countries and emerging markets (Acs – Varga 2005; Fritsch 2007; Poschke 2013; Ivanović-Đukić et al. 2018).

5. CONCLUSION AND POLICY RECOMMENDATIONS

Over the past decade, many studies have tended to assume that entrepreneurship is crucially important for economic growth. The research papers on these topics, in the emerging markets has grown significantly in the last several years, but their conclusions are contradictory. The qualitative studies explain that entrepreneurship is important for economic growth, but empirical studies prove the opposite (Tang – Koveos 2004; Zaki – Rashid 2016). A possible explanation for this situation is the impact of a very specific rapidly changing environment, the presence of the number of small-scale, informal, self-employed, and often unproductive entrepreneurs outweighs the number of productive, etc. Therefore, recent meta-analysis on this topic concluded that further integrative studies are needed. Hierarchical regression were applied in order to investigate this relationship. We found that entrepreneurship has a positive impact



on economic growth in the emerging markets, but this impact is not statistically significant, due to many weaknesses in the entrepreneurial ecosystem and forms of unproductive entrepreneurship are still dominant in TEA. It is necessary to implement a lot of different measures in order to stimulate the development of productive entrepreneurship and eliminate the weaknesses of the existing entrepreneurial ecosystem.

For example, GEI shows that Chile, Estonia, Poland, Slovakia, Latvia, Hungary, China and Colombia have strong entrepreneurial ecosystem conditioned by strong, market-embracing governance systems; compared to them, entrepreneurial ecosystems in India, Mexico, Argentina, Brazil and Russia are significantly less developed. The key differences between these groups of countries, as well as between emerging markets and developed countries, are the level of institutional development, technology absorption capacity, development of startup skills and characteristics of national culture, etc. Emerging markets with less developed entrepreneurial ecosystems could make considerable progress simply by addressing its basic framework conditions for entrepreneurial and economic activity, such as the rule of law, equal access to markets and human capital, etc. The role of the government should be in addressing market deficiencies, e.g., access to finance, infrastructure and labour markets. It is important to attract informal investors, who want consistent regulation and the ability to move money in and out of the economy, what is not the case in the emerging markets. It would be useful for the state to provide prospective entrepreneurs with guarantees or other forms of security that will make it easier for them to attract investments. The legal infrastructure should be improved as well, because this can have a stimulating effect on the development of entrepreneurship.

An increase in entrepreneurship generally should not be regarded as a universal solution due to the fact that all forms of entrepreneurship do not have the same impact on economic growth. Our results showed that HEA is the only form of entrepreneurship which has a positive and significant impact on economic growth in the emerging markets which could be stimulated. HEA is the least developed in Greece, Mexico, India and Brazil. At the same time, the level of development of start-up skills is the lowest in Mexico, India, Brazil and China. In order to overcome these weaknesses, governments can create start-up ecosystems. Start-up ecosystem encourages the creation and development of HEA thanks to different forms of support such as: mentoring, consulting services and contacts with investors, etc. Also, a lot of high growth-oriented entrepreneurs included in the entrepreneurial ecosystem create a pool of well-trained and like-minded entrepreneurs. It enables exchange of knowledge and experience and creates a culture that encourages innovation and new businesses. By linking technology, capital and know-how within a protected and enabling environment, the process of business creation can be speeded up, while the probability of failure can be reduced. The emerging markets where the HEA is most developed, such as Colombia, Chile, China, Slovakia and Hungary etc., can be used as good examples. A very interesting situation is in Greece, where the start-up skills are highly developed, but the percentage of HEA entrepreneurs is the smallest in our sample. A possible cause of this situation is lack of capital. Since entrepreneurs do not have access to the formal capital market and banks are not interested in them because of the high risk it could be useful to provide much more sources of informal capital (venture capital funds, business angels, Crowdfunding and ICO, etc).

Our study also has shown that IEA has a positive influence on economic growth in the emerging markets, but its impact is not statistically significant. Perhaps because the number of innovative entrepreneurs is small and their participation in the TEA is insignificant. The



Table 5. Summarised results by country group basis

| Entrepreneurial ecosystem | | Development of HEA | | Development of IEA | |
|---------------------------|-----------|--------------------|--------|--------------------|----------|
| Strong | Weak | High | Low | High | Low |
| Chile | India | Colombia | Greece | India | Brazil |
| Estonia | Mexico | Chile | Mexico | | Russia |
| Poland | Argentina | China | India | | Colombia |
| Slovakia | Brazil | Slovakia | Brazil | | Mexico |
| Latvia | Russia | Hungary | | | |
| Hungary | | | | | |
| China | | | | | |
| Colombia | | | | | |

development of innovative entrepreneurship should be encouraged, especially in the countries where it is least represented. IEA is the least developed in: Brazil, Russia, Colombia and Mexico, etc. These countries are also characterized by low level of technology absorption. It is especially emphasized in India. India is positioned itself as a regional source of innovation. However, without improvements to its bottleneck factor, technology absorption, further progress will be hamstrung. In order to increase technology absorption capacity, India should obtain the knowledge of the developed countries so that later they can learn and apply them for their businesses. After these steps the countries will be able to improve that knowledge and create their own. Country's absorption capacity to some extent also depends on how large number of highly qualified research and development specialists in the country is employed. Therefore, it is believed that scientists and engineers should be more employed in industry than in universities and public research centers. Also, the engagement of the corporate private sector in fostering innovative entrepreneurship may be useful. The minimal level of engagement may be in sharing best practices, offering mentorship, providing incubators for promising new ideas, and by helping them build entrepreneurial networks. The summarised results are presented in [Table 5](#).

Our study has showed that the impact of NEA on economic growth in the emerging markets is negative. Governments should adopt such policies which educate entrepreneurs about innovative entrepreneurship's powerful economic potential to impact the economic development, help them build organized businesses through expert consultation, and also, by funding entrepreneurs to run their businesses smoothly and rewarding new idea implementation by them to facilitate a shift from NEA to HEA.

REFERENCES

- Acs, Z. J. – Szerb, L. – Autio, E. (2017): *Global Entrepreneurship and Development Index 2016*. Springer.
 Acs, Z. J. – Szerb, L. (2009): The Global Entrepreneurship Index (GEINDEX). *Foundations and Trends in Entrepreneurship*, 5(5): 341–435.



- Acs, Z. J. – Varga, A. (2005): Entrepreneurship, Agglomeration and Technological Change. *Small Business Economics*, 24(3): 323–334.
- Aničić, J. – Aničić, D. – Vasić, N. (2017): Entrepreneurship Development and Financial Performances in SMEs Sector in Serbia. *Ekonomika*, 63(4): 29–39.
- Audretsch, D. – Fritsch, M. (2002): Growth Regimes over Time and Space. *Regional Studies*, 36(1): 113–124.
- Aulakh, P. – Kotabe, M. (2008): Institutional Changes and Organizational Transformation in Developing Economies. *Academy of Management Executive*, 15(3): 95–108.
- Baranyai, T. – Kozma, M. (2019): Family Firms with New Leaders in the Global Market – A Potential Success Story? *Acta Oeconomica*, 69(S2): 129–160.
- Bashir, H. – Akhtar, A. (2016): The Role of Innovative Entrepreneurship in Economic Development: A Study of G20 Countries. *Management Studies and Economic Systems (MSES)*, 3(2): 91–100.
- Baumol, W. J. (1990): Entrepreneurship: Productive, Unproductive and Destructive. *Journal of Political Economy*, 80(5): 893–921.
- Bell, L. (2013). Entrepreneurship and Local Economic Growth in Emerging Markets. *International Conference CARPE*. Manchester Metropolitan University.
- Bosma, N. – Kelley, D. (2019): *Global Entrepreneurship Monitor 2018/2019*. Report. <https://www.gemconsortium.org/report>.
- Bruton, G. D. – Ahlstrom, D. – Obloj, K. (2008): Entrepreneurship in Emerging Economies: Where Are We Today and Where Should the Research Go in the Future. *Entrepreneurship: Theory and Practice*, 32(1): 1–14.
- Bruton, G. D. – Filatotchev, I. – Se, S. – Wright, M. (2013): Entrepreneurship and Strategy in Emerging Economies. *Strategic Entrepreneurship Journal*, 7(1):169–180.
- Bygrave, W. D. (2007): The Entrepreneurship Paradigm Revisited. In Neergaard, H. – Ulhøi, J. P. (eds): *Handbook of Qualitative Research Methods in Entrepreneurship*. Cheltenham, UK: Edward Elgar Publishing, pp. 17–48.
- Carlin, W. (2001): Competition and Enterprise Performance in Transition Economies: Evidence from a Cross-Country Survey. *CEPR Discussion Paper*, No. 2840.
- Carree, M. – Stel, R. – Thurik, R. – Wennekers, S. (2007): The Relationship Between Economic Development and Business Ownership Revisited. *Entrepreneurship and Regional Development*, 19(2): 281–291.
- Carree, M. – Thurik, R. (2003): The Impact of Entrepreneurship on Economic Growth. In: Audretsch, B. – Acs, J. (eds): *Handbook of Entrepreneurship Research*. Boston/Dordrecht: Kluwer Academic Publishers, pp. 437–471.
- Cornelius, B. – Landström, H. – Persson, O. (2006): Entrepreneurial Studies: The Dynamic Research Front of a Developing Social Science. *Entrepreneurship Theory and Practice*, 30(3): 375–398.
- Čučković, N. – Bartlett, W. (2007): Entrepreneurship and Competitiveness: The Europeanisation of Small and Medium-Sized Enterprise Policy in Croatia. *Southeast European and Black Sea Studies*, 7(1): 37–56.
- Desai, S. (2009): Measuring Entrepreneurship in Developing Countries. *UNU-WIDER Research Paper*, No. 2009/10, United Nations University, World Institute for Development Economics Research.
- Estrin, S. – Mickiewicz, T. – Stephan, U. – Wright, M. (2018): Entrepreneurship in Emerging Economies. In: Grosse, R. (ed): *Oxford Handbook on Management in Emerging Markets*. Oxford University Press, pp. 281–336.



- Fritsch, M. (2007): How does New Business Formation Affect Regional Development? *Small Business Economics*, 30(2): 1–14.
- Global Innovation Barometer (2018): https://s3.amazonaws.com/dsg.files.app.content.prod/gereports/wp-content/uploads/2018/02/12141008/GE_Global_Innovation_Barometer_2018-Summary_Report.pdf.
- González, A. – Lamanna, F. (2007): Who Fears Competition from Informal Firms? Evidence from Latin America. *Policy Research Working Paper*, No. 4316, World Bank, Enterprise Analysis Unit.
- Guégan, D. – Hassani, K. – Zhao, X. (2014): Emerging Countries Sovereign Rating Adjustment Using Market Information: Impact on Financial Institutions Investment Decisions. In: Hedi, E. – Arouri, M. – Boubaker, S. – Nguyen, D. (eds): *Emerging Markets and the Global Economy: A Handbook*. Oxford, UK: Academic Press, pp. 17–49.
- Hoskisson, R.E. – Eden, L. – Lau, C.M. – Wright, M. (2000): Strategy in Emerging Economies. *Academy of Management Journal*, 43(3): 249–267.
- Ivanović-Đukić, M. – Stefanović, S. – van Stel, A. – Petrović, J. (2018): Contribution of Entrepreneurship to Economic Growth: A Comparative Analysis of South-East Transition and Developed European Countries. *International Review of Entrepreneurship*, 16(2): 257–276.
- Ivanović-Đukić, M. – Stevanović, T. – Rađenović, T. (2019): Does Digitalization Affect the Contribution of Entrepreneurship to Economic Growth? *Proceedings of Rijeka Faculty of Economics*, 37(2): 653–679.
- Janjić, I. – Radenović, T. (2019): The Importance of Managing Innovation in Modern Enterprises. *Ekonomika*, 65(3): 45–54.
- Janjić, I. – Jovanović, M. – Simonović, Z. (2021): The Importance of Research and Development for Innovative Activity: The Overview of the Top Countries in Europe and Worldwide. *Economics of Sustainable Development*, 5(2): 19–28.
- Khanna, T. – Palepu, K. (2000): Is Group Affiliation Profitable in Emerging Markets? An Analysis of Diversified Indian Business Groups. *Journal of Finance*, 55(2): 867–891.
- Kim, H. – Li, M. (2014): Seeking Assurances When Taking Action: Legal Systems, Social Trust, and Starting Businesses in Emerging Economies. *Organization Studies*, 35(3): 359–391.
- Kiss, A. – Danis, W. – Cavusgil, T. (2012): International Entrepreneurship Research in Emerging Economies: A Critical Review and Research Agenda. *Journal of Business Venturing*, 27: 266–290.
- Koster, S. – Kumar, R. (2008): Entrepreneurship and Economic Development in a Developing Country: A Case Study of India. *Journal of Entrepreneurship*, 17(2): 117–137.
- Kvint, V. (2009): *The Global Emerging Market. Strategic Management and Economics*. New York, London: Routledge.
- Lin, Y. F. (2011): Global Development Horizons 2011 – Multipolarity: The New Global Economy. [Http://www.worldbank.org/gdh2011](http://www.worldbank.org/gdh2011).
- Majumdar, S. K. – Vora, D. – Nag, A. K. (2010): Industry Structure Characteristics and International Entrepreneurship in India's Software Industry. *The Journal of Entrepreneurship*, 19(2): 109–136.
- Mcmillan, J. – Woodruff, C. (2002): The Central Role of Entrepreneurs in Transition Economies. *The Journal of Economic Perspectives*, 16(3): 153–170.
- Meggison, W. – Netter, J. (2001): From State to Market: A Survey of Empirical Studies on Privatization. *Journal of Economic Literature*, 39(2): 321–339.
- MSCI (2019): *MSCI Market Classification Report*. <https://www.msci.com/market-classification>.
- Ojala, A. – Isomäki, H. (2011): Entrepreneurship and Small Businesses in Russia: A Review of Empirical Research. *Journal of Small Business and Enterprise Development*, 18(1): 97–119.



- Peng, W. (2001): How Entrepreneurs Create Wealth in Transition Economies. *Management International Review*, 51(1): 23–39.
- Poschke, M. (2013): Entrepreneurs Out of Necessity: A Snapshot. *Applied Economics Letters*, 20(7): 658–663.
- Prabhu, J. – Jain, S. (2015): Innovation and Entrepreneurship in India: Understanding Jugaad. *Asia Pacific Journal of Management*, 32(4): 843–868.
- Puffer, S. – McCarthy, D. – Boisot, M. (2010): Entrepreneurship in Russia and China: The Impact of Formal Institutional Voids. *Entrepreneurship Theory and Practice*, 34(3): 27–39.
- Ramesh, S. (2018): Entrepreneurship in China and India. *Journal of the Knowledge Economy*, 34(5): 74–89.
- Ries, E. (2011): *The Lean Startup: The Movement That Is Transforming How New Products Are Built and Launched*. USA: Crown Business.
- Rotar-Južnik, L. (2014): Youth Unemployment and Entrepreneurship. *Ekonomika*, 60(4): 43–56.
- Sabela, A. – Farraj, W. – Burgar, M. – Qaimary, D. (2014): Entrepreneurship and Economic Growth in West Bank, Palestine. *Journal of Developmental Entrepreneurship*, 19(1): 1–15.
- Salgado-Banda, H. (2007): Entrepreneurship and Economic Growth: An Empirical Analysis. *Journal of Developmental Entrepreneurship*, 12(1): 3–29.
- Schumpeter, J. (1934): *The Theory of Economic Development*. MA: Harvard University Press.
- Startup Genome (2017): *Global Startup Ecosystem Report*. <http://d1i53wesras4r4.cloudfront.net/reports/GlobalStartupEcosystemReport2017.pdf>.
- Steve, B. – Dorf, B. (2014): *The Start-Up Owner's Manual: The Step-by-Step Guide for Building a Great Company*. K&S Ranch.
- Szirmai, A. – Naudé, W. – Goedhuys, M. (2011): Entrepreneurship, Innovation and Economic Development: An Overview. In: Szirmai, A. – Naudé, W. – Goedhuys, M. (eds): *Entrepreneurship, Innovation and Economic Development*. Oxford: Oxford University Press, pp. 3–32.
- Talić, M. – Ivanović-Đukić, M. – Rađenović, T. (2020): Sustainable Entrepreneurship: Creating Opportunities for Green Products Development. *Economics of Sustainable Development*, 4(2): 1–13.
- Tang, L. – Koveos, E. (2004): Venture Entrepreneurship, Innovation Entrepreneurship and Economic Growth. *Journal of Developmental Entrepreneurship*, 9(2): 161–171.
- Thukral, I. S. – Her, von J. R. – Walsh, S. – Groen, A. J. – Sijde, van der P. – Akmaliah, A (2008): Entrepreneurship, Emerging Technologies, Emerging Markets. *International Small Business Journal*, 26(1): 101–116.
- Tracey, P. – Phillips, N. (2011): Entrepreneurship in Emerging Markets: Strategies for New Venture Creation in Uncertain Institutional Contexts. *Management International Review*, 51(1): 23–39.
- Tripathi, S. S. – Brahma, S. (2018): Technology Entrepreneurship in Emerging Markets: An Exploration of Entrepreneurial Models Prevalent in India. *Technology Innovation Management Review*, 8(1): 23–31.
- Valliere, D. – Peterson, R. (2009): Entrepreneurship and Economic Growth: Evidence from Emerging and Developed Countries. *Entrepreneurship & Regional Development*, 21: 459–480.
- van Stel, A. – Carree, M. – Thurik, R. (2005): The Effect of Entrepreneurial Activity on National Economic Growth. *Small Business Economics*, 24(3): 311–321.
- van Stel, A. – Koster, S. (2011): The Relationship Between Start-Ups, Market Mobility and Employment Growth: An Empirical Analysis for Dutch Regions. *Scales Research Reports*, No. H201104, EIM Business and Policy Research.
- van Stel, A. – Burke, A. – Millán, J. (2013): Start-Up Size Strategy and Risk Management: Impact on New Venture Performance. *Scales Research Reports*, No. H201207, EIM Business and Policy Research.
- van Stel, A. – Concepción, R. – José, M. (2018) The Relationship Between Start-Up Motive and Earnings Over the Course of the Entrepreneur's Business Tenure. *Journal of Evolutionary Economics*, 28(1): 101–123.



- Webb, J. W. – Bruton, G. B. – Tihanyi, L. – Ireland, D. R. (2012): Research on Entrepreneurship in the Informal Economy. *Journal of Business Venturing*, 30: 1–17.
- Wennekers, S. – van Stel, A. – Carree, M. – Thurik, R. (2010): *The Relationship Between Entrepreneurship and Economic Development: Is It U-Shaped? Foundation of Trends in Entrepreneurship*, Boston – Delft: NOW Publishers.
- Wong, P. K. – Ho, Y. P. – Autio, E. (2005): Entrepreneurship, Innovation and Economic Growth: Evidence from GEM Data. *Small Business Economics*, 24(3): 335–350.
- World Bank (2018): *The Role of Major Emerging Markets in Global Commodity Demand*. <http://pubdocs.worldbank.org/en/184021526414119243/global-economic-prospects-june-2018-topical-issue-global-commodity-demand.pdf>.
- Wright, M. – Liu, X. – Buck, T. – Filatotchev, I. (2008): Returnee Entrepreneurs, Science Park Location Choice and Performance: An Analysis of High-Technology SMEs in China. *Entrepreneurship Theory and Practice*, 32(1): 131–155.
- Yamakawa, Y. – Peng, M. – Deed, D. (2008): What Drives New Ventures to Inter-Nationalize from Emerging to Developed Economics? *Journal of Entrepreneurship Theory and Practice*, 32(1): 59–82.
- Zaki, N. – Rashid, N. (2016): Entrepreneurship Impact on Economic Growth in Emerging Countries. *The Business and Management Review*, 7(2): 31–39.
- Zolfaghari, M. – Criado, A. – Nowiński, V. (2013): *International Entrepreneurship from Emerging Economies: A Meta-Analysis*. Current Issues in International Entrepreneurship; The McGill International Entrepreneurship Series.