Regional aspects of entrepreneurial activity and characteristics in Slovakia with the emphasis on youth and seniors

Juraj Mikuš [a]* and Anna Pilková [a]

[a] *Department of Strategy and Entrepreneurship, Faculty of Management, Comenius University, Bratislava, Slovakia*

Abstract

This paper aims to identify differences in the entrepreneurial process across Slovak regions (NUTS 3 level) for the population as well as youth and seniors based on the Global Entrepreneurship Monitor (GEM) data. A pooled sample was created using the adult population survey (APS) individual-level data for Slovakia (2016-2020). We implemented descriptive statistics methods and further analysed the results according to studied groups of the population. Our findings point out recommendations for Slovak regions that policymakers should focus their attention on and consider while formulating entrepreneurship-related policies. We believe the paper provides valuable insight on entrepreneurial activity and its respective phases in the regional context with the emphasis on the population, youth, and seniors.

Keywords: Entrepreneurial activity; Entrepreneurial process; Regional analysis; GEM data.

JEL Classification: R11, R12, R19

Article Classification: Research article

1 Introduction

Understanding the formation of entrepreneurial behaviour has important implications for the creation of policies (Kibler, 2013) and presents a valuable knowledge base for policymakers. The objective is not only to foster entrepreneurial potential, intentions, and early-stage entrepreneurial activity among the population but also a culture favourable to conducting entrepreneurship in later stages as it has been previously discussed by e. g. Kautonen et al. (2011), Pilková et al. (2019), or Westlund et al. (2014). However, entrepreneurship is a complex phenomenon and thus it is important to consider various factors that influence it. In general, it is known that individual characteristics are

* Corresponding author: Juraj Mikuš, Department of Strategy and Entrepreneurship, Faculty of Management, Comenius University, Odbojárov 10, 820 05 Bratislava 25, Slovakia, email: juraj.mikus@fm.uniba.sk

important and influence one´s decision to engage in entrepreneurship. However, entrepreneurial activity draws also from the social context that to a large extend shapes and forms entrepreneurial outcomes. Furthermore, as stated by Shook et al. (2003), interaction with the regional environment is likewise crucial. The previous literature suggests that regional environment and context affect individual perceptions. In the increasing body of literature, mostly significant effects of regional factors on entrepreneurial activity and economic development have been explored (e. g. Fritsch & Schmude, 2006; Tamásy, 2006). The theory points out that regional context influences perceptions and entrepreneurial preferences (Sternberg, 2009; Bosma et al., 2009). Also, entrepreneurial behaviour is an embedded phenomenon, while triggering factors depend on contextual circumstances which may vary significantly in different locations (Lévesque & Minniti, 2006). Although there is a vast literature about individual characteristics, entrepreneurial context, and regional aspects, the researchers have yet to focus on different age generations. Particularly youth and seniors attracted the attention of researchers and policymakers due to global challenges such as long-term unemployment, different social issues as well as an aging society. One of the possible solutions to these challenges seems to be cross-generational entrepreneurship, however, a generational gap exists. The evidence shows that the total early-stage entrepreneurial activity of youth is much higher than that of seniors (Pilková et al., 2020). Even though it is known that starting a new firm "tends to be a young man´s game" (Lévesque & Minniti, 2006) higher senior´s involvement has many advantages such as not relying on pension schemes, staying active in the labour market, and contributing to the system, social inclusion, active aging, etc. On the other hand, youth can also benefit from expanding their professional networks, gaining experience, knowledge, and skills. Therefore, if the situation is to improve it is important to study age differences between generations particularly in the regional setting to gain a better overview of the situation and focus the policy interventions more precisely.

This paper makes the following contributions. It provides a literature review on regional and generational aspects of entrepreneurship. Second, the paper presents result of GEM on different phases of the entrepreneurial process across Slovak regions for the population as well as youth and seniors. Third, implications for policymakers are derived by providing detailed information on different regions and how they influence youth and senior´s early-stage entrepreneurial engagement.

The paper is organized as follows. The first part describes the theoretical background underlying the analysis. The subsequent part introduces the methods used in the empirical part based on GEM data. The third part presents the results of the analysis, while the final part discusses the findings and their implications for policymakers and further research.

1.1 Theoretical background

Studies focused on age generations and entrepreneurial activity are relatively scarce (Ratten, 2019). It is important to research entrepreneurship in general, but it is also useful to understand the differences between generations and how the factors influencing them differ. Population around the world ages therefore the need for understanding generational aspects of entrepreneurship increases as well as the importance of understanding the consequences for entrepreneurial policies. The existing studies focus on differences in behaviours, labour market orientation, perceptions, and values between youth and seniors (Pyöriä et al., 2017; Howe & Strauss, 2007). These differences are often a source of intergenerational conflicts as described by Belkin (2005). Seniors are often

found not being as smart as youth and hence a social separation exists according to Hagestad and Uhlenberg (2005). One reason for such a conclusion might be the higher cognitive skills of youth which makes them more prone to perceive opportunities and act on them (Olugbola, 2017). Another reason could be the easier use of new technology and the likelihood of technological innovation by the younger generation (Kolnhofer-Derecskei et al., 2018). Youth also exhibit a higher likelihood of looking for meaning and social responsibility in the workplace, on average achieve a higher level of education and are better at using ICT and social media platforms (Pyöriä et al., 2017).

Senior entrepreneurs are on the other hand in the next phase of their life and are likely to capitalize on their developed personal attributes, knowledge, skills, and experience (Ratten, 2019). Seniors have higher intellectual and human capital that can be used to overcome difficulties in setting up a business (Baù et al., 2017). Even though there has been very little research published compared to other groups of the population including different types of entrepreneurs (Ratten, 2019), senior entrepreneurs and setting up a business later in life are becoming more popular (Tervo, 2014) which enables seniors to stay active in their social lives and community (Isele & Rogoff, 2014). Seniors are more likely to have time to dream, dedicate their effort to set up a business, and fulfill their dreams (Hantman & Gimmon, 2014). They also might have more financial resources than youth which gives them more freedom (Menyen & Adair, 2013). However, with increasing age, the opportunity cost of time increases, and seniors might be less willing to commit to activities with uncertain results (Gimeno et al., 1997).

There is not a defined set of characteristics that would make a person an entrepreneur. It is broadly acknowledged that it is an individual choice. However, social capital has an impact on entrepreneurship, which is represented by culture, social networks, norms, values, and attitudes towards entrepreneurship that differ across various regions. The meaning of regional context is also important as entrepreneurs tend to establish ventures close to where they live (Stam, 2007). Entrepreneurial outcomes are the interplay of individual characteristics, attitudes, and regional context (Westlund et al., 2014) that determine available opportunities, resources, capabilities but also interests (Thurik et al., 2002). Regional factors influence individuals at the early stages of the entrepreneurial process (Bosma & Schutjens, 2011) and influence individual´s interest in setting up a business and entrepreneurial motivations (Stenberg, 2009). Entrepreneurial aspirations are likewise shaped to a large extend by regional attributes that further influence opportunity perception, ambiguity towards risk, entrepreneurial self-confidence in one´s own ability to start and run a business (Bergmann, 2005).

In the literature, it has been discussed that the urban environment might support venture creation by providing more entrepreneurial opportunities and resources compared to rural areas (Tödtling & Wanzenböck, 2003). Furthermore, urban environments are more likely to foster the creation of networks and collaborations that can contribute to new venture creation (Liao & Welsch, 2005). Naudé et al. (2008) argue that in urban areas the competition is usually higher as well as barriers to entry. Wealthier regions with higher income level exhibit increased spending capacity and higher demand even though the higher income levels might increase labour costs and hence a bigger proportion of the population prefer paid employment (Bosma et al., 2008). Higher regional entrepreneurial activity increases innovation, entrepreneurial diversity, knowledge spillovers, the emergence of role models, and overall higher entrepreneurial attitudes (Fritsch & Mueller, 2007; Bosma & Schutjens, 2011). New entrepreneurial activity is likely to fail, therefore business discontinuation tends to be higher. That can cause a stigma of failure in the region which might have an adverse effect on starting entrepreneurial activity (Pe'er & Vertinsky, 2008). The evidence shows that regional aspects positively but also

negatively affect the entrepreneurial process and can support or discourage individual entrepreneurial intentions.

This article aims to add to the literature by examining the regional differences of overall entrepreneurial engagement in different phases of the entrepreneurial process and that of youth and seniors in Slovakia. We use the Global Entrepreneurship Monitor approach (Reynolds et al., 2005) that is well suited for measurement and analysis of different phases of the entrepreneurial process.

2 Material and methods

The paper is based on GEM data, specifically Adult Population Survey (APS) for Slovakia during the years 2016 to 2020. GEM is the world´s foremost study about entrepreneurship that examines the entrepreneurial behaviour of individuals (their characteristics, attitudes, activities, and aspirations). The minimum sample of 2000 respondents had been collected annually which is representative of age, gender, and regional distribution. The analysis was conducted in 3 stages.

At *the first stage*, a pooled sample of APS individual-level data (adult population 18 – 64 years old) was created for Slovakia (for years 2016 – 2020) comprising of 10,001 adult population individuals. A pooled sample was also created for studied groups of the population, youth (aged 18 – 34 years old) comprising of 3,518 individuals and senior (aged 55 – 64 years old) comprising of 2024 individuals.

At *the second stage*, selected variables of the entrepreneurial process for 8 Slovak regions as well as for the whole country were computed implementing descriptive statistics methods. We used the entrepreneurship process model by Singer et al. (2012) shown in figure 1 illustrating entrepreneurial phases.

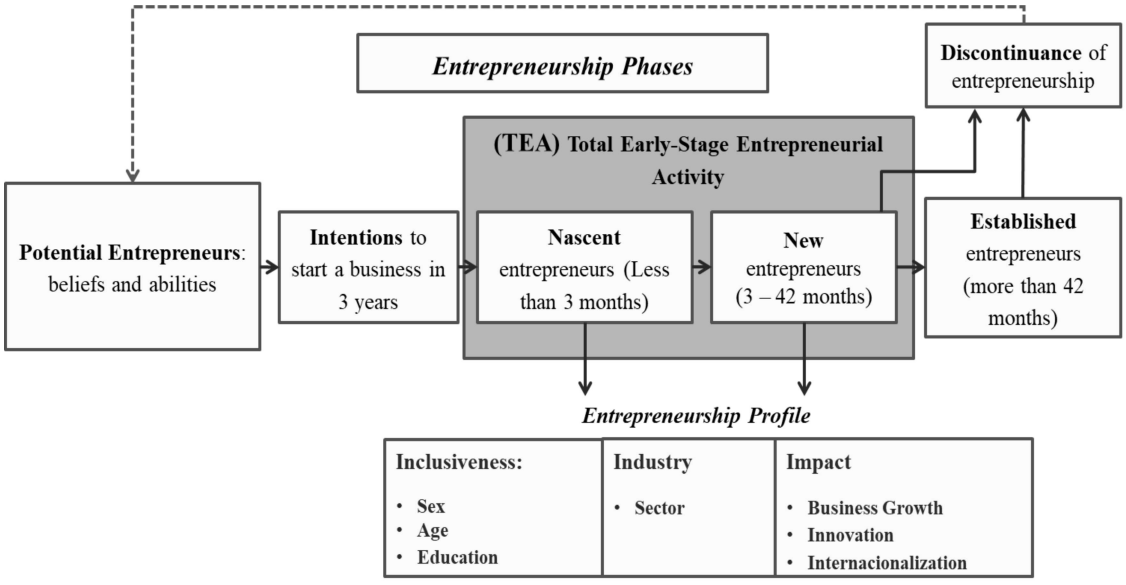

Figure 1 Entrepreneurship process model; Source: modified by (Singer et al., 2012)

GEM indicators are well suited to measure entrepreneurial phases. According to the process model shown in figure 1, the first entrepreneurial phase is represented by potential entrepreneurs. As the potential of the population to become entrepreneurs cannot be directly measured it is observed through a set of variables divided into two groups, namely: a) social attitudes towards entrepreneurship representing social capital, including variables such as media attention, high entrepreneurial status in society and perception of

entrepreneurship as a desired career choice; b) self-assessment of potential entrepreneurs including variables such as perceived opportunities (perception of good opportunities for starting a business in the next 6 months), entrepreneurial self-confidence (belief in having required knowledge, skills, and experience to start a new business), and fear of failure (indicating that fear of failure would prevent the respondent from starting a business). The entrepreneurial process then continues with the intention to start a business including individuals who expect to start a business within the next three years. Total early-stage entrepreneurial activity (TEA) consists of nascent entrepreneurs who are owners and managers of businesses up to 3 months old receiving no income yet and new entrepreneurs doing business from 3 months up to 42 months. Individuals doing business that had been generating income for more than 42 months are considered established entrepreneurs. The cycle then ends with business discontinuation that includes individuals who quit entrepreneurial activity due to various reasons.

At *the third stage*, we analysed computed variables of entrepreneurial phases for Slovak regions, presented the results, and formulated the findings as well as policy implications.

3 Results

The entrepreneurial potential of the population in the Slovak regions according to the methodology described in chapter 2 is measured through social attitudes towards entrepreneurship and self-assessment of potential entrepreneurs. The results are shown in Table 1.

Table 1 Entrepreneurial potential of the Slovak population for 2016 – 2020 (in %); Source: own elaboration

	Bratislava region	**Trnava region**	**Nitra region**	**Trenčín region**	**Banská Bystrica**	**Žilina region**	**Prešov region**	**Košice region**	**Slovakia**
Social attitudes towards entrepreneurship									
Media attention	56,1	59,0	58,5	58,9	53,5	54,3	58,6	56,6	56,9
High entrepreneurial status in society	57,6	61,3	63,0	62,1	57,9	59,0	59,4	61,4	60,2
Entrepreneurship as a good career choice	39,2	49,0	45,1	49,6	46,8	48,9	50,5	48,7	47,3
Self-assessment of potential entrepreneurs									
Perceived opportunities	52,5	42,8	31,9	36,5	23,1	32,0	26,6	28,8	33,4
Entrepreneurial self-confidence	60,3	50,5	50,3	49,2	48,6	50,5	50,0	49,6	51,0
Fear of failure	41,8	48,2	48,4	49,3	46,9	52,6	44,7	48,6	47,5

Values of entrepreneurial potential variables differ greatly across Slovak regions. Social attitudes towards entrepreneurship are the worst in the Bratislava region, particularly the high status of entrepreneurs in society and entrepreneurship as a good career choice which are both well below the average of Slovakia. Underperforming is also Banská Bystrica region which is not lacking significantly behind the Slovak average in perceiving entrepreneurship as a good career choice but on the other hand, exhibits the lowest media attention towards entrepreneurship. Considering social attitudes towards entrepreneurship, the Nitra region shows the highest media attention as well as entrepreneurial status in society. Media attention is further high also in the Trnava region, Trenčín region as well as Prešov region, where entrepreneurship is considered as a good

career choice by the highest proportion of the population. Bratislava region outperforms other Slovak regions in self-assessment of potential entrepreneurs where the highest proportion of the population perceives good opportunities for conducting business, also that they have sufficient knowledge, skills, and experience to do so and fear of failure would not discourage them from engaging in entrepreneurial activity. Contrary, the population in the Banská Bystrica region perceives the least opportunities and self-confidence. Fear of failure prevails in the Žilina region.

Table 2 presents the values of other entrepreneurial phases according to the entrepreneurship process model.

Table 2 Entrepreneurial activity of the population in Slovak regions for 2016 – 2020 (in %); Source: own elaboration

	Bratislava region	**Trnava region**	**Nitra region**	**Trenčín region**	**Banská Bystrica**	**Žilina region**	**Prešov region**	**Košice region**	**Slovakia**
Entrepreneurial intentions (among non-entrepreneurs)	15,6	11,8	11,2	9,8	10,4	11,8	10,3	12,9	11,7
Nascent entrepreneurs	11,8	7,8	8,0	9,4	7,8	6,8	9,4	8,4	8,7
New entrepreneurs	5,2	3,1	4,9	3,3	3,5	2,7	3,0	3,4	3,6
Index of "Death"	2,3	2,6	1,6	2,9	2,2	2,6	3,2	2,4	2,4
Total early-stage entrepreneurial activity (TEA)	16,6	10,8	12,8	12,5	11,2	9,3	12,2	11,7	12,1
Established entrepreneurs	10,8	6,4	6,1	6,4	5,0	6,3	6,2	5,9	6,6
Business discontinuation	5,1	4,6	5,1	4,4	3,2	4,5	4,1	4,0	4,4

Bratislava region exhibits the highest entrepreneurial intentions, TEA consisting of nascent and new entrepreneurs, established entrepreneurial activity but unfortunately also business discontinuation. Entrepreneurial intentions are the lowest in Trenčín, Prešov and also in Banská Bystrica region. In terms of TEA and its components, the Žilina region is performing the worst. However, the highest index of "death" which is an interesting variable showing the proportion of nascent and new entrepreneurs while expressing the proportion of those who fail in their initial entrepreneurial effort (nascent phase) and do not manage to overcome difficulties to become new entrepreneurs, is in Prešov region. Index of "death" in the Prešov region equals 3,2 which means that for one successful entrepreneur who manages to become a new entrepreneur more than 3 other entrepreneurs are unsuccessful. The least established entrepreneurs can be found in the Banská Bystrica region that also exhibits the lowest business discontinuation.

Tables 3 and 4 are focused on analysing the phases of entrepreneurial activity of youth.

Table 3 Entrepreneurial potential of youth in Slovakia for 2016 – 2020 (in %); Source: own elaboration

	Bratislava region	Trnava region	Nitra region	Trenčín region	Banská Bystrica	Žilina region	Prešov region	Košice region	Slovakia
Social attitudes towards entrepreneurship									
Media attention	58,5	63,4	59,5	54,8	54,3	53,8	60,3	59,6	58,0
High entrepreneurial status in society	60,4	63,7	70,1	67,7	64,5	62,6	61,5	62,2	63,9
Entrepreneurship as a good career choice	37,1	52,5	44,9	53,1	49,3	44,5	56,1	48,6	48,5
Self-assessment of potential entrepreneurs									
Perceived opportunities	57,8	49,2	38,4	38,9	26,7	36,9	32,5	36,6	38,9
Entrepreneurial self-confidence	57,6	44,7	49,1	45,9	48,1	50,6	48,8	48,2	49,2
Fear of failure	42,7	48,5	50,4	53,7	44,9	50,4	43,9	48,0	47,7

In terms of social attitudes towards entrepreneurship, youth perceive the highest media attention in the Trnava region and the lowest in the Žilina region. Entrepreneurs enjoy the highest status by youth in the Nitra region and the contrary in Prešov a Košice region. Interestingly, in the Prešov region is entrepreneurship further considered as a good career choice by the highest proportion of youth while it is the least in the Bratislava region which excels on the other hand in self-assessment of potential youth entrepreneurs. They perceive the most entrepreneurial opportunities, are the most self-confident, and exhibit the lowest fear of failure. The least opportunities perceive youth in Banská Bystrica region, the least self-confident are in the Trnava region, and the highest fear of failure they show in the Trenčín region.

Table 4 Entrepreneurial activity of youth in Slovak regions for 2016 – 2020 (in %); Source: own elaboration

	Bratislava region	Trnava region	Nitra region	Trenčín region	Banská Bystrica	Žilina region	Prešov region	Košice region	Slovakia
Entrepreneurial intentions (among non-entrepreneurs)	19,9	14,1	16,2	13,3	11,2	17,3	12,5	17,1	15,1
Nascent entrepreneurs	14,7	9,5	9,0	11,1	7,6	8,7	7,9	9,4	9,6
New entrepreneurs	3,0	2,2	6,0	3,1	2,6	5,1	3,2	3,2	3,6
Index of "Death"	4,9	4,2	1,5	3,5	2,9	1,7	2,4	2,9	2,7
Total early-stage entrepreneurial activity (TEA)	17,7	11,5	15,0	14,2	10,2	13,1	10,8	12,5	13,0
Established entrepreneurs	5,0	1,7	1,9	3,1	3,1	2,7	2,3	2,4	2,8
Business discontinuation	4,0	2,5	5,3	3,2	1,7	5,1	4,3	3,2	3,7

Youth in the Bratislava region outperform their counterparts from other regions in all phases of entrepreneurial activity except for new entrepreneurs and business discontinuation. The low proportion of new entrepreneurs also causes the highest index of "death". The lowest entrepreneurial intentions show youth in the Banská Bystrica region, where we can find also the lowest TEA but interestingly also business discontinuation. The lowest index of "death" is both in Nitra and Žilina region.

Tables 5 and 6 contain information about seniors´ involvement in different phases of entrepreneurial activity.

Table 5 Entrepreneurial potential of seniors in Slovakia for 2016 – 2020 (in %); Source: own elaboration

	Bratislava region	**Trnava region**	**Nitra region**	**Trenčín region**	**Banská Bystrica**	**Žilina region**	**Prešov region**	**Košice region**	**Slovakia**
Social attitudes towards entrepreneurship									
Media attention	55,5	63,0	55,7	60,2	53,1	59,6	54,5	58,5	57,3
High entrepreneurial status in society	56,7	61,6	58,8	56,1	52,6	53,1	55,5	57,9	56,5
Entrepreneurship as a good career choice	43,6	54,7	44,1	44,6	41,3	47,6	48,7	50,4	46,9
Self-assessment of potential entrepreneurs									
Perceived opportunities	50,3	36,0	26,9	38,5	19,0	29,5	22,2	27,2	30,2
Entrepreneurial self-confidence	58,8	45,3	44,6	50,0	38,4	44,6	44,1	46,6	46,4
Fear of failure	42,0	46,5	53,9	40,1	48,7	50,4	46,3	46,6	47,1

Regarding seniors´ social attitudes towards entrepreneurship, all three indicators exhibit the highest values in the Trnava region and lowest in the Banská Bystrica region. Banská Bystrica region is further lacking behind other regions in perceiving good opportunities for conducting business and entrepreneurial self-confidence. The highest opportunity perception and entrepreneurial self-confidence seniors exhibit in the Bratislava region. Seniors in the Trenčín region seem the most resilient against the fear of failure while those in the Nitra region are the least resilient.

Table 6 Entrepreneurial activity of seniors in Slovak regions for 2016 – 2020 (in %); Source: own elaboration

	Bratislava region	**Trnava region**	**Nitra region**	**Trenčín region**	**Banská Bystrica**	**Žilina region**	**Prešov region**	**Košice region**	**Slovakia**
Entrepreneurial intentions (among non-entrepreneurs)	12,6	5,9	3,4	6,5	9,1	5,2	3,7	7,5	6,5
Nascent entrepreneurs	5,4	3,2	3,5	6,8	8,1	5,0	8,2	4,2	5,5
New entrepreneurs	3,8	1,4	1,0	1,4	1,6	0,8	3,2	4,9	2,3
Index of "Death"	1,4	2,3	3,3	5,0	5,0	6,0	2,6	0,9	2,4
Total early-stage entrepreneurial activity (TEA)	9,2	4,6	4,5	8,2	9,7	5,8	11,3	8,4	7,8
Established entrepreneurs	13,3	7,3	8,3	11,8	7,7	10,4	9,2	9,4	9,6
Business discontinuation	5,0	3,2	4,5	4,6	4,1	4,7	3,6	5,0	4,3

Most seniors intend to start a business in the Bratislava region and least in the Nitra region. The Nitra region furthermore exhibits the lowest TEA and its components. However, the Žilina region also shows a low proportion of new entrepreneurs which causes the highest index of "death" in this region. The highest proportion of new senior entrepreneurs can be found in the Košice region with the lowest index of "death" even though the highest TEA is in the Prešov region. Bratislava region outperforms other regions in established senior entrepreneurs, especially the Trnava region where the

proportion of established entrepreneurs is the lowest. Contrary to established entrepreneurs, the highest business discontinuation is in the Bratislava region and the lowest in the Trnava region. Business discontinuation is fairly high also in Košice and Žilina region.

4 Discussion

The results of our analysis show that different phases of entrepreneurial activity across Slovak regions is quite unevenly distributed considering the Slovak population but also studied groups of the population. In general, we can conclude that the highest entrepreneurial activity in its different phases is in the Bratislava region, especially considering the population and youth even though also seniors exhibit the highest entrepreneurial intentions and established entrepreneurial activity. This is commonly supported by the high self-assessment of potential entrepreneurs whether it is in terms of the population, youth, or seniors which at the same time represents the social capital within the region. However, social attitudes towards entrepreneurship can be at best considered neutral or rather bad which seems not to discourage potential entrepreneurs who have the opportunity to also reflect on more job opportunities within the region. The most underperforming seem to be Nitra, Banská Bystrica, and Žilina region whether it is in terms of different phases of entrepreneurial activity, social attitudes towards entrepreneurship, or self-assessment of potential entrepreneurs. Considering the population, Banská Bystrica and Žilina region are the worst in both aspects, considering youth it is unequivocally Banká Bystrica region and in terms of seniors, it is both Banská Bystrica and Nitra region. In the Banská Bystrica region, we suggest implementing policies aimed at improving social attitudes towards entrepreneurship as well as educational programs to help exploit opportunities and obtain knowledge and skills to improve self-confidence and lower fear of failure focused on the population with the special emphasis on youth and seniors. Interventions in the Žilina region should be focused on improving social attitudes towards entrepreneurship while in Nitra they should focus on improving aspects of self-assessment of potential entrepreneurs.

This paper adds to the literature on youth and seniors´ entrepreneurial engagement and provides a unique insight on different phases of entrepreneurial activity and its regional distribution using a robust dataset of GEM.

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References

Baù, M., Sieger, P., Eddleston, K.A., and Chirico, F. (2017), "Fail but try again? The effects of age, gender, and multiple-owner experience on failed entrepreneurs' reentry." *Entrepreneurship Theory and Practice*, Vol. 41 No. 6, pp. 909-941.

Belkin, L. (2005). *A Generation Gap. a Workplace Chasm*. The New York Times.

Bergmann, H. (2005), "Entrepreneurial attitudes - Wodurch werden sie determiniert und welche Rolle spielt die Region?" *Zeitschrift für Wirtschaftsgeographie* Vol. 49, pp. 185–199.

Bosma, N., and V. Schutjens (2011), "Understanding regional variation in entrepreneurial activity and entrepreneurial attitude in Europe." *Annals of Regional Science* Vol. 47, pp. 711–742.

Bosma, N., Schutjens, V., and Stam, E. (2009), "Entrepreneurship in European regions: Implications for Public Policy." *In Public Policies for Fostering Entrepreneurship: A European Perspective*, eds. J. Leitao, and R. Baptista, 59–89. New York: Springer.

Bosma, N., van Stel, A., and Suddle, K. (2008). "The geography of new firm formation: Evidence from independent start-ups and new subsidiaries in the Netherlands." *International Entrepreneurship and Management Journal* Vol. 4, pp. 129–146.

Fritsch, M., and J. Schmude. (2006), *Entrepreneurship in the region*. New York: Springer.

Fritsch, M., and Mueller, P. (2007), "The persistence of regional new business formation-activity over time - assessing the potential of policy promotion programs." *Journal of Evolutionary Economics* Vol. 17, pp. 299–315.

Gimeno, J., Folta, T.B., Cooper, A.C., and Woo, C.Y. (1997), "Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms." *Administrative Science Quarterly,* Vol. 42 No. 4, pp. 750 – 783.

Hagestad, G.O., and Uhlenberg, P. (2005), "The social separation of old and young: a root of ageism." *Journal of Social Issues*, Vol. 61 No. 2, pp. 343-360.

Westlund H., Larsson, J.P., Olsson, A.R. (2014), "Start-ups and Local Entrepreneurial Social Capital in the Municipalities of Sweden." *Regional Studies*, doi: 10.1080/00343404.2013.865836.

Hantman, S., and Gimmon, E. (2014), "Dare to dream: new venture incubator for older adults." *Educational Gerontology*, Vol. 40 No. 10, pp. 737-744

Howe, N., and Strauss, W. (2007), "The next 20 years." *Harvard Business Review,* Vol. 85 No. 7–8, pp. 41–52.

Isele, E., and Rogoff, E.G. (2014), "Senior entrepreneurship: the new normal." *Public Policy and Aging Report*, Vol. 24 No. 4, pp. 141-147.

Kautonen, T., Tornikoski, E.T., and Kibler., E. (2011). "Entrepreneurial intentions in the third age: The impact of perceived age norms." *Small Business Economics,* Vol. 37, pp. 219–234.

Kibler, E. (2013). "Formation of entrepreneurial intentions in a regional context." *Entrepreneurship & Regional Development,* Vol. 25 No. 3-4, pp. 293–323.

Kolnhofer-Derecskei, A., Reicher, Zs. R., and Szeghegyi, A. (2018), "The X and Y Generations' Characteristics Comparison." *Acta Polytechnica Hungarica*, Vol. 14 No. 8, pp. 107-125.

Lévesque, M., and Minniti, M. (2006), "The effect of aging on entrepreneurial behavior." *Journal of Business Venturing,* Vol. 21 No. 2, pp. 177–194.

Liao, J., and Welsch, H. (2005), "Roles of social capital in venture creation: Key dimensions and research implications." *Journal of Small Business Management,* Vol. 43, pp. 345–362.

Menyen, T., and Adair, T. (2013), *Understanding senior Australians and their communities: findings from a nationwide survey.* Melbourne, National Seniors Productive Ageing Centre.

Naudé, W.A., Gries, T., Wood, E., and Meintjes. A. (2008), "Regional determinants of entrepreneurial start-ups in a developing country." *Entrepreneurship & Regional Development,* Vol. 20, pp. 111–124.

Olugbola, S. A. (2017), "Exploring entrepreneurial readiness of youth and startup success components: Entrepreneurship training as a moderator." *Journal of Innovation and Knowledge*, Vol. 2 No. 3, pp. 155-171.

Pe'er, A., and Vertinsky, I. (2008), "Firm exits as a determinant of new entry: Is there evidence of local creative destruction?" *Journal of Business Venturing,* Vol. 23, pp. 280–306.

Pilková, A., Mikuš, J., and Káčer, J. (2019), "Senior, Youth And Women Entrepreneurship In the European Regions". In *conference proceedings - IMES 2019*. p. 733-745.

Pilková, A., Mikuš, J., and Káčer, J. (2020), "Inclusive Entrepreneurship in the Selected CEE Countries: Do Contextual and Framework Conditions Matter?" *Innovation Management, Entrepreneurship and Sustainability (IMES 2020).*

Pyöriä, P., Ojala, S., Saari, T., and Järvinen, K. (2017), "The Millennial Generation: A New Breed of Labour?" *SAGE Open,* Vol. 7 No. 1.

Ratten, V. (2019), "Older entrepreneurship: a literature review and research agenda." *Journal of Enterprising Communities: People and Places in the Global Economy*, Vol. 13 No. 1/2, pp. 178-195.

Reynolds, P., Bosma, N., Autio, E. *et al.* (2005), "Global Entrepreneurship Monitor: Data Collection Design and Implementation 1998–2003." *Small Bus Econ,* Vol. 24, pp. 205–231.

Shook, C. L., Priem, R. L., and McGee, J. E. (2003), "Venture Creation and the Enterprising Individual: A Review and Synthesis*." Journal of Management,* Vol. 29 No. 3, pp. 379–399.

Stam, E. (2007), "Why butterflies don't leave. Locational behaviour of entrepreneurial firms." *Economic Geography,* Vol. 83, pp. 27–50.

Sternberg, R. (2009), "Regional dimensions of entrepreneurship." *Foundations and Trends in Entrepreneurship,* Vol. 5, pp. 211–340.

Tamásy, C. (2006), "Determinants of regional entrepreneurship dynamics in contemporary Germany: A conceptual and empirical analysis." *Regional Studies,* Vol. 40, pp. 365–384.

Tervo, D. G. R., Proskurin, M., Manakov, M., Kabra, M., Vollmer, A., Branson, K., and Karpova, A. Y. (2014), "Behavioral Variability through Stochastic Choice and Its Gating by Anterior Cingulate Cortex*." Cell*, Vol. 159 No. 1, pp. 21–32.

Thurik, R., Uhlaner, L., and Wennekers, S. (2002), "Entrepreneurship and its conditions: A macro perspective." *International Journal of Entrepreneurship Education,* Vol. 1, pp. 25–64.

Tödtling, F., and Wanzenböc, H. (2003), "Regional differences in structural characteristics of startups." *Entrepreneurship & Regional Development,* Vol. 15, pp. 351–370.