

RELATIONSHIP BETWEEN SIGNIFICANT FACTORS OF BUSINESS ENVIRONMENT OF SMEs AND THE AGE OF ENTREPRENEURS

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ABSTRACT

This article explores significant factors of quality of business environment of small and medium-sized enterprises (SMEs). The aim of the article is to define and quantify the relationship between such important factors of business environment as motives for starting a business and the perception of selected types of business risks on the age of entrepreneur. The survey of the quality of business environment was carried out in 2015 through a questionnaire on a sample of 1,141 respondents (business owners) in the Czech Republic. Statistically significant differences between the designated social groups were compared through Pearson statistics at the significance level of 5%. We found that there are statistically significant differences in the approach of the entrepreneurs. According to our research making money is the most important motive for starting a business in the SME segment. Younger entrepreneurs more frequently in comparison to their older counterparts present this opinion. We also found that the perception of the market and financial risks does not depend on the age of the entrepreneur. On the other hand, entrepreneurs under 35 years less intensively perceive credit risk exposure than older entrepreneurs, and present lower perception of the overall effect of business risk than older entrepreneurs. Our findings may help in the innovation approaches of commercial banks in the area of the management of credit risk.

Keywords: credit risk, financial risk, market risk, motives, Small and Medium-sized Enterprises.

INTRODUCTION

Small and medium-sized enterprises (SMEs) are an important part of the economic system in each country. Most of the experts agree that SMEs significantly contribute to the growth of the employment, Gross Domestic Product and carry out other duties (Shuying and Mei, 2014; International Finance Corporation, 2013; European Commission, 2011; Karpak and Topcu, 2010, Henderson and Weiler, 2010; OECD, 2006).

The research of SMEs business environment is a current topic of scientific research worldwide. Researchers focus their interest on various areas of SMEs' activities. Such authors as Soininen, Martikainen, Puumalainen & Kyläheiko (2012), Eggers, Kraus Hughes laraway & Snycerski (2013) Avlonitis & Salavat (2007), and Keh, Nguyen & Ng (2007) examine the significant attributes of entrepreneurial orientation SMEs and its impact on business performance.

Ardic (2012), Casey and O.Toole (2014), KUNDIN and EREGOVAC (2011), and Ozturk and Mrkaic (2014) examine the impact of the financial crisis on SMEs financing.

Other authors focus their research on such attributes of the activities of SMEs, as personal characteristics of the entrepreneur, gender and age of the entrepreneur, the age of the company in context of company's financial performance etc.

The aim of the article is to define and quantify the relationship between such important factors of business environment as motives for starting a business and the perception of selected types of business risks on the age of entrepreneur. Authors' own methodology allows defining and quantifying of the differences in the attitudes of entrepreneurs depending on their age.

This article has a following structure. The first section presents the views of the experts on the age of entrepreneurs in context of business environment. The second section presents the research methodology and data. Results of the empirical research and a brief discussion are presented in the third part of the article. The final section summarizes obtained results.

LITERATURE & THEORY

Researchers in the field of business environment usually focus on the most suitable time for starting a business in relation to the age of the entrepreneur, and present different results.

According to Arenius and Minniti (2005) age is negatively related to entrepreneurship, and entrepreneurship is a game of young men. On the other side Bonte, Falck, and Heblich (2007) found that, the belonging to the groups aged between 20-30 and 40-59 has a positive effect on the startup of hi-tech businesses. They have also stated that, people who belong to the group aged from 30 to 39 years old are more risk averse, do not want to take any entrepreneurship initiative, and are entrepreneurially passive. According to these authors people in the age between 40 and 49 are the prime group for starting a new business. In this age people usually have some accumulated experience from their previous jobs and also have the startup capital, which is not the case for the age group of 20-29. In this context Levesque and Minniti (2011) state that older people are less motivated to take any business initiatives. They have shown that the age between 32 and 35 can be a good start up point to become an entrepreneur, however, the probability to become an entrepreneur decreases after the specified age.

Brunow, and Hirte (2006) found although age group from 30-44 adds significant value to the overall economic growth, individuals from the age group from 45-59 are the most productive.

Levesque and Minniti (2006) state that when a person gets older and more experienced she/he rather wants to have a more stable life with a regular source of income, which is not possible in case of doing business; because the earnings are unstable for any new company, and are much more uncertain than the earnings of the employee. However, regardless of age people when the risk aversion decreases, they begin to desire to try for their own business, in order to be more independent. On top of that, it is also found that, wealth is positively related to entrepreneurship, whereas, earning of the high wage is negatively related with entrepreneurships. So it is suggested that, those who are already working as a highly paid worker don't want to start new business due to the high opportunity cost for leaving the job. Lastly, the value of leisure is higher for older people because they have already worked a lot of years, due to that reason they do not want to devote more time to the opening of a new company. And this is not the case for a younger employee, who wants to have a try something new by working hard by reducing the value of leisure time.

The desire to become an entrepreneur increases with age due to higher wealth accumulation during the life cycle and wider range of gathered knowledge from previous experience or educational background (Velez, 2009).

Lafuente and Vaillant (2013) found that pre-startups coefficient is positive for individuals at the age of 30. However, the value of startups decreases when they include post startups (those are already in business, at least for the last 36 months) to the evaluation process.

METHODS AND DATA

This article is based on the survey of the quality of business environment carried out in 2015 in Czech Republic on a sample of 1141 small and medium sized enterprises, out of a total number of 1650 randomly selected companies. The questionnaire available at https://docs.google.com/forms/d/1U9coaC5JRL0N2QOOO6Xb8j3mnaZXdSM47Kugt4EDGf0/viewform?usp=send_form, which consisted of 52 questions, was presented to the companies, selected from Albertina database. 740 out of 1141 respondents belonged to the category of microenterprises according to the EU definition of SMEs stated by the EU recommendation #2003/361, where the main factor determining the category of the enterprise is staff headcount, when microenterprises should employ up to 9 employees. The respondents of the survey represented all 14 regions of the Czech Republic.

The structure of the respondents from the group of microenterprises was as follows: 73% men, 27% women; 71% of respondents reported to have secondary education, 29% had the university degree; 53% of companies' owners stated that the company exists for more than 10 years, 47% of them declared that their companies operate for a less than 10 years. The age of the researched companies was as follows: 62% were established more than 10 years ago, 21% operated between 1 and 5 years, and 17% of them operated between 5 and 10 years. Most of the total number of the respondents reported to have secondary education (48%), 34% of them had a university degree and 18% declared secondary education without graduation.

Our research used the tools of descriptive statistics, including percentages and averages, pivot tables, the methods of comparison and deduction, Pearson's chi-square statistics at 5% significance level for the verification of the existence of the statistically significant dependences and differences between the selected factors. The calculation were made in MS Excel and in the statistical software available at www.socscistatistics.com. Statistically significant differences in the individual responses were investigated by the means of Z- score. The calculations were made through the free software available at: <http://www.socscistatistics.com/tests/ztest/Default2.aspx>

We set two alternative working hypotheses for this article by the method of expert estimation. The hypotheses were assigned with the abbreviations of H1 to H2. Second hypothesis has 4 modifications assigned with the letters a, b, c and d. The alternative hypotheses were supplemented by the null hypotheses assuming there were no statistically verifiable differences between the researched factors. *Null hypotheses: There are no statistically significant dependences between the age of the entrepreneur and the chosen field of research.*

Null hypothesis means that $\pi_1 = \pi_2$, so $\pi_1 - \pi_2 = 0$, while the alternative hypothesis states that $\pi_1 - \pi_2 \neq 0$

We have the following alternative working hypotheses:

- H1: Making money is the most important motive for starting a business. There are statistically significant differences between the entrepreneurs in terms of age.
- H2: The perception of business risks depends on the age of the entrepreneur, while younger entrepreneurs less intensively perceive business risks in comparison to older entrepreneurs.

Hypothesis H2 has the following sub hypotheses:

- H2a: Entrepreneurs younger than 35 years old less intensively perceive the action of the market risk than older entrepreneurs.
- H2b: Entrepreneurs younger than 35 years old less intensively perceive the action of the financial risk than older entrepreneurs.

- H2c: Entrepreneurs younger than 35 years old less intensively perceive the action of the credit risk than older entrepreneurs.
- H2b: Entrepreneurs younger than 35 years old less intensively perceive the action of the business risks than older entrepreneurs.

RESULTS

The results of research regarding the motives for starting a business in relation to the age of the entrepreneur are presented in Table 1.

Table 1
Motives for starting a business

What was you motive to start a business?	35 – N = 279	35 –45 N = 320	45+ N = 542	Z-score p-value
1. Money	103 (36.92%)	102 (31.88%)	133 (24.54%)	0.1936*/ 0.0002 */ 0.0193 ***
2. Mission	70	66	118	0.1936/0.2846/0.6892
3. I wanted to have a job	0	0	0	---
4. I had no choice	11	22	58	0.1164/ 0.0009 /0.0615
5. Other	95	130	233	0.0969/ 0.0131 /0.4965
Chi square/p-value	3.9899* 0.2626	23.3984 ** 0.0001	7.5368*** 0.5662	

Notes: 35 - entrepreneurs with the age under 35; 35-45 - entrepreneurs with the age between 35 and 45; 45 + entrepreneurs with the age over 45; N - number of respondents; value marked with * means that we compared entrepreneurs under the age of 35 years and entrepreneurs aged 35-45 years; value marked with ** means the comparison of the entrepreneurs under the age of 35 with entrepreneurs older than 45, value marked with *** means the comparison of entrepreneurs aged 35 to 45 years and entrepreneurs over the age of 45 years.

Our research identified the following most common motives for starting a business: independence (to be his own man, independent decision-making); taking over the family business, inheritance, hobby, to do what one enjoys and self-realization.

Presented results allow us to confirm the statement, presented in the hypothesis H1, that *making money is the most important motive for starting a business*. This opinion was expressed by 30% of all entrepreneurs. We also found that there are statistically significant differences in entrepreneurial motives among entrepreneurs in terms of their age. The values of the test criteria (p-value = 0.0002 / 0.0193) at the significance level of 5% confirmed that there are significant differences in positive responses of entrepreneurs under 35 and over 45 businessmen and entrepreneurs between 35-45 years and over 45 entrepreneurs. Younger entrepreneurs mentioned money as the most important motive for doing business more often. Presented results allow us to reject the null hypothesis, and to adopt hypothesis H1. *H1 was fully confirmed.*

The results of research regarding the perception of market risk in relation to the age of the entrepreneur are presented in Table 2.

Table 2
Perception of market risk in relation to the age of entrepreneur

<i>SMEs perceive an intense action of market risk</i>	35 – N = 279	35 – 45 N = 320	45+ N = 542	Z-score p-value
1. Totally agree	11	15	50	
2. Agree	121	142	245	
Total:1+2	132	157	295	0.6672* 0.0536** 0.1285***
3. Neutral position	80	86	132	
4. Disagree	64	70	103	
5. Totally disagree	3	7	12	
Chi square/p-value	1.5788* 0.8126	11.0969** 0.0255	6.8574*** 0.1436	

Most of the respondents agree with the statement that *SMEs perceive an intense action of market risk*. Although the value of the test criteria (p-value = 0.0255) confirmed that there are statistically significant differences in the overall responses when comparing entrepreneurs younger than 35 and entrepreneurs older than 45, but p-value of the comparisons of three presented age groups (0.6672 / 0.0536 / 0.1285) confirmed at the significance level of 5% that *market risk perception does not depend on the age of the entrepreneur*. The values of the test criteria for the comparison of the entrepreneurs under the age of 35 with entrepreneurs older than 45 got close to set significance level, which indicates some influence of the age, but not at the expected level. The conclusion is that there are no statistically significant differences in the affirmative replies of the entrepreneurs according to their age. Due to this fact *null hypothesis was adopted, and sub hypothesis H2a was rejected*.

Table 3
Perception of financial risk in relation to the age of entrepreneur

<i>Financial risk intensively influences the business environment</i>	35 – N = 279	35 – 45 N = 320	45+ N = 542	Z-score p-value
1. Totally agree	41	57	83	
2. Agree	166	199	339	
Total:1+2	207	256	422	0.0910* 0.2380** 0.4593***
3. Neutral position	53	35	72	
4. Disagree	18	24	46	
5. Totally disagree	1	5	2	
Chi square/p-value	10.0421* 0.0397	5.2517* 0.2624	5.4411*** 0.2450	

The prevailing opinion of all respondents is that *financial risk intensively influences the business environment*. Although the value of the test criteria (p-value = 0.0397) confirmed that there are statistically significant differences in the overall responses when comparing entrepreneurs younger than 35 and entrepreneurs aged 35-45 years, but p-value of the comparisons of three presented age groups (0.0910 / 0.2380 / 0.4593) confirmed at the significance level of 5% that *perception of financial risk does not depend on the age of the entrepreneur*. We found that there are no statistically significant differences in the affirmative replies of the entrepreneurs regarding financial risk according to their age. Due to this fact *null hypothesis was adopted, and sub hypothesis H2b was rejected*.

Table 4
Perception of credit risk in relation to the age of entrepreneur

<i>The importance of credit risk grew during the crisis</i>	35 – N = 279	35 – 45 N = 320	45+ N = 542	Z-score p-value
1. Totally agree	13	21	67	
2. Agree	139	194	290	
Total:1+2	152 (54.48%)	215 (69.19%)	357 (65.87)	0.0015* 0.0015** 0.6892***
3. Neutral position	98	73	143	
4. Disagree	25	29	39	
5. Totally disagree	4	3	3	
Chi square/p-value	12.3119* 0.0152	18.8965** 0.0008	10.7838*** 0.0291	

The prevailing opinion of all respondents is that *the importance of credit risk grew during the crisis*. Values of the test criteria for all three age groups (p-value = 0.0152*/0.0008**/0.0291***) confirmed that there are statistically significant differences in the overall responses of each of them. P-values of the comparison of three presented age groups (entrepreneurs under the age of 35 years vs. entrepreneurs aged 35-45 years, entrepreneurs under the age of 35 vs. entrepreneurs older than 45, and entrepreneurs aged 35 to 45 years vs. entrepreneurs over the age of 45 years) which were 0.0015*, 0.0015** and 0.6892*** confirmed at the significance level of 5% that *perception of credit risk does depend on the age of the entrepreneur*. Entrepreneurs under 35 more intensively perceive the influence of the credit risk in comparison to the older entrepreneurs. Our conclusion is that there are statistically significant differences in the affirmative replies of the entrepreneurs regarding the credit risk according to their age. Due to this fact *null hypothesis was rejected, and sub hypothesis H2c was adopted instead*.

Table 5
Perception of business risks in relation to the age of entrepreneur

<i>The importance of business risks grew during the crisis</i>	35 – N = 279	35 –45 N = 320	45+ N = 542	Z-score p-value
1. Totally agree	12	28	41	
2. Agree	140	174	308	
Total:1+2	152	202	349	0.0316 0.0058 0.7114
3. Neutral position	84	53	104	
4. Disagree	40	61	87	
5. Totally disagree	3	4	2	
Chi square:p-value	18.8875 0.0008	15.9794 0.0030	4.6370 0.3266	

Most of the respondents agree with the statement that the *importance of business risks grew during the crisis*. Values of the test criteria for all three age groups ($p\text{-value} = 0.0008^*, 0.0030^{**}, 0.3266^{***}$) confirmed that there are statistically significant differences in the overall responses of the entrepreneurs younger than 35, and in the age group 35 to 45 with a very high significance level of 1% (the result is almost certainty). P-values of the comparison of three presented age groups (0.0316*, 0.0058** and 0.7114*** confirmed at the significance level of 5% that *perception of business risks does depend on the age of the entrepreneur*. Entrepreneurs under 35 less intensively perceive the influence of business risks in comparison to the older entrepreneurs. This trend is confirmed by the values of the test criteria. Our conclusion is that there are statistically significant differences in the affirmative replies of the entrepreneurs regarding the business risks according to their age. Due to this fact *null hypothesis was rejected, and sub hypothesis H2d was adopted instead*.

Alternative working hypothesis H2 stating that the perception of business risks depends on the age of the entrepreneur, while younger entrepreneurs less intensively perceive business risks in comparison to older entrepreneurs, was partially confirmed in relation to the credit risk and the evaluation of the level of business risks, but was rejected in relation to the market and financial risk.

The results of our research identified that while a desire for independence, taking over the family business, inheritance, hobby, doing what one enjoys and self-realization belong to the most common motives for doing business, *making money is the most important one*. While researching the influence of the age of the entrepreneur on the perception of different types of business risks we found that although entrepreneurs under 35 *more intensively* perceive the influence of the *credit risk*, and *less intensively* perceive the influence of business risks in comparison to the older entrepreneurs, the perception of market and financial risks *does not depend on the age of the entrepreneur*.

Our findings correspond with the results of Bonte, Falck, and Heblich (2007), who stated that younger entrepreneurs are less risk averse, which is the reason for a lower perception of the influence of business risks of the entrepreneurs under 35. Our finding that older entrepreneurs are less concerned about the credit risk is related to their finding that people in the age between 40 and 49 are the prime group for starting a new business due to the fact that they already have the startup capital, and corresponds to the findings of Velez (2009) who found that the desire to become an entrepreneur increases with age due to higher wealth accumulation during the life cycle.

Our finding that a desire for independence and independent decision making belongs to the most common reasons to start doing business confirm findings by Levesque and Minniti (2006), who found that regardless of age people they desire to try for their own business, in order to be more independent.

CONCLUSION AND FUTURE WORK

This article explores significant factors of quality of business environment of small and medium-sized enterprises (SMEs). The aim of the article was to define and quantify the relationship between such important factors of business environment as motives for starting a business and the perception of selected types of business risks on the age of entrepreneur.

The results of our research identified that while a desire for independence, taking over the family business, inheritance, hobby, doing what one enjoys and self-realization belong to the most common motives for doing business, *making money is the most important one, especially for younger people*.

The prevailing opinions of all respondents of our research, carried out in the Czech Republic in 2015 on a sample of 1,141 respondents (business owners) are that *financial risk intensively influences the business environment, that SMEs perceive an intense action of market risk* and that the *importance of business and credit risks grew during the crisis*. While researching the influence of the age of the entrepreneur on the perception of different types of business risks we found that although entrepreneurs under 35 *more intensively* perceive the influence of the *credit risk*, and *less intensively* perceive the influence of *business risks* in comparison to the older entrepreneurs, the *perception of market and financial risks does not depend on the age of the entrepreneur*. The values of the test criteria for the comparison of the entrepreneurs regarding market risk under the age of 35 with entrepreneurs older than 45 got close to set significance level, which indicates some influence of the age, but not at the expected level.

Presented findings may help the commercial banks in the field of innovation of their approaches the area of the management of credit risk in order to support younger people in starting a new business. Our further research will be focused on the influence of other factors on small and medium sized enterprises and business environment.

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