Kozubíková L., Zoubková A. (2016), Entrepreneur´s attitude towards innovativeness and competitive aggressiveness: the case study of Czech micro-enterprises, *Journal of International Studies*, Vol. 9, No 1, pp. 192-204. DOI: 10.14254/2071-8330.2016/9-1/14

Journal of International Studies

Entrepreneur´s attitude towards innovativeness and competitive aggressiveness: the case study of Czech micro-enterprises

Ludmila Kozubíková
Tomas Bata University in Zlín,
Czech Republic
e-mail: kozubikova@fame.utb.cz

Anna Zoubková
Tomas Bata University in Zlín
Czech Republic
e-mail: Anna.Zoubkova@seznam.cz

Abstract. The aim of this article is to evaluate the differences in the attitude of micro-enterprises´entrepreneurs to the selected constructs of entrepreneurial orientation (EO), specifically to innovativeness and competitive aggressiveness according to the selected socio-demographic factors (gender, education and duration of doing business by the firm).The research was conducted in the Czech Republic in 2015. On the sample of 740 micro-enterprises, we attempt to find out differences in owners' approaches to innovation and competitive aggressiveness between men and women, entrepreneurs, university educated and other education (secondary school with and without graduation) and "older" (active in the market for more than 10 years) and younger micro-enterprises. More than 50% of the micro-enterprises surveyed regularly develop new products and services in their companies, but only 30 % of them support their activities also with sufficient amount of finances. 66 % of micro-enterprises try to exploit anticipated changes in their target market and 58 % take the initiative to get ahead of competition. We found out, that the factor that caused statistically significant differences between the determined groups was the time of operating in the market.

Received: October, 2015
1st Revision: December, 2015
Accepted: March, 2016

DOI: 10.14254/2071-8330.2016/9-1/14

Keywords: micro-enterprises, small and medium-sized enterprises, entrepreneurial orientation, innovativeness, competitive aggressiveness

JEL classification: L26

INTRODUCTION

Due to the predominant share of small and medium-sized enterprises and micro-businesses in the Czech economy, and also at the European level, their importance for the performance of these economies in terms of value creation, job opportunities, combined gross domestic product development and innovation policy, is undisputed.

On the other hand, micro-enterprises, due to their nature, are facing the entire series of obstacles and difficulties. The main challenge includes limited access to external sources of financing. According to Belás et al. (2015) a particularly important issue to SMEs is the financial gap produced by their limited access to external financing. Even before the economic downturn, some small businesses had troubles obtaining the funds necessary for growth and innovation. Due to the financial crisis, banks are even less willing to lend to companies in many countries, which further exacerbated the problems SMEs are already facing.

In this article, we try to reveal the differences among micro-enterprises' entrepreneurs in the Czech Republic in theirattitudes to innovativeness and competitive aggressiveness according to gender and education of entrepreneurs and also company´s age.

THEORETICAL BACKGROUND

The issue of business risks for SMEs represents now a current area of theoretical research and practical applications. The financial crisis and gradual recovery of economies in the European Economic Area brought about a deterioration of the business environment. Presumably, business risks have been increased due to the turbulences in the economic system. Small and medium-sized enterprises operate in more challenging economic environment, respectively, many of them struggling with their own survival. It is evident that all these risks are transformed into the financial management of enterprises. (Belás et al, 2015)

In the Czech Republic, the share of value added of SMEs in 2014 was 53,11 % and the share of employee of SMEs of total amount of employee of entrepreneurial sphere was 59,39 % (Ministry of Industry and Trade, 2015). For this reason it can be regarded as the engine of Czech economy.

Micro-enterprises, small and medium-sized enterprises are an essential source of jobs, they create entrepreneurial spirit and innovation in the EU and are thus crucial for fostering competitiveness and employment (European Commission, 2006).

The category of micro-enterprises, small and medium-sized enterprises consists of the companies, which employ fewer than 250 employees and have an annual turnover not exceeding of € 50 million or whose annual balance sheet in total not exceeding € 43 million. Enterprises exceeding these criteria are considered to be large. Micro-enterprises are defined as the companies, which employ less than 10 persons and whose annual turnover or annual balance sheet in total not exceeding € 2,000,000 (European Commission, 2006). Definition of SME shown in Table 1.

Table 1

Categorization of small, medium and micro-enterprises(source: European Commission, 2006)

Enterprise category	Number of employees	Annual turnover	Annual balance sheet total
Medium	<250	≤€ 50 million	≤€ 43 million
Small	<50	≤€ 10 million	≤€ 10 million
Micro-enterprise	<10	≤€ 2 million	≤€ 2 million

In 2010, in connection with maintaining the employment, creating jobs and improving access to the labor market, the European Union has approved "micro loans" and loans for unemployed (up to EUR 25 000) under the program of micro-financing called European Microfinance Facility (EMF). The aim of this

program was to provide unemployed people, which are the most disadvantaged in the labor market, including young people, with the possibility to start their own business.EMF was to ease access to credit for those who would not normally acquire a loan to launch small businesses, mainly because of the unwillingness of the banks to lend to people who have lost or are at risk of losing their jobs or to younger people without a so called "Credit history". Association of Small and Medium-Sized Enterprises and Crafts CZ (AMSP) has welcomed this proposal because the target segment of the planned program in the Czech Republic misses these supportive tools as well (AMSP, 2009). Micro-financing also appears in the 10-year economic strategy "Europe 2020" as one of the new instruments for economic recovery.

Entrepreneurial orientation is the element that needs to be taken into consideration in connection with the performance of companies. For example, Mahmood & Hanafi (2013) state, that entrepreneurial orientation such as risk taking, pro-activeness and innovativeness is significantly related to the company performance. *Entrepreneurial orientation (EO)* is considered to be an essential element of high firms´ performance and it is significantly influenced by the *entrepreneur´s personality* (Lim, Envick, 2013).Among the personalities who have significantly expanded the knowledge regarding entrepreneurial personalities belong Lumpkin and Dess (1996). They defined EO as "the processes, practices, and decision-making activities that lead to new entry".Unlike the original definition by Miller (1983), which considered EO as a three-dimensional construct composed of innovation, risk-taking and pro-activity, Lumpkin and Dess see the EO as a five-dimensional construct expanding Miller's concept of two other constructs, namely autonomy and competitive aggressiveness.

Innovativeness reflects the tendency of companies to promote new ideas, new experiments and creative processes that may result in new products, services or technological processes. Zortea-Johnston, Darroch and Matear (2012) state that empirical results show that firm having higher EO orientation such as, innovation through R&D, pro-activeness, autonomy and growth orientation can develop more products that can create the competitive advantage which create the driving market orientation. They also found out that they find that EO firms can actively search for and pursue new opportunities focus on R&D activities and they can empower employees to innovate new products that will create competitive advantage over their competitors. The necessity to have the ability of innovation for entrepreneurs is also highlighted by Lukes (2013), when statingthat what differentiates entrepreneurs from all other groups is their higher involvement in preparatory activities that start the implementation of new ideas. People who manage other people communicate new ideas and seek to engage other individuals in the implementation of new ideas more than those without subordinates.

Competitive aggressiveness perceived as a further element of business orientation is, according to Lumpkin and Dess (1996), related to the companies' qualities and direct and intensive challenge of the competitors in order to enter the market or to improve the markets' position, i.e. to fulfill the role of rivals in the market.Venkatraman (1989) suggested that competitive aggressiveness is accomplished by setting ambitious market share goals and taking bold steps to achieve them, such as cutting prices and sacrificing profitability. Moss, NeubaumandMeyskens (2015) have brought the following findings to this element of EO:micro-enterprises, which signal autonomy, competitive aggressiveness, and risk-taking, are more likely to receive funding, and to receive it more quickly. On the other hand micro-enterprises that signal conscientiousness, courage, empathy, and warmth are less likely to get funded. Rhetorical signaling with pro-activeness, conscientiousness, courage or zeal is negatively associated with loan repayment.

Due to the nature of micro-enterprises personality of entrepreneur plays an irreplaceable role. An entrepreneur who owns micro-enterprise in itself very often joins several roles. In the same time it is both the owner and the manager, in many cases also a financial analyst, marketing expert, personnel manager, accountant, engineer or sales representative. In relationship to the features of the personality of the business-

men Mishra and Lalumiere (2011), in the results of their study, show that personality characteristics such as impulsivity, search for sensation, low self-control may represent mechanisms through which the preferences of risk are manifested in the behavior. According to Dvir, SadehandMalach-Pines (2010), entrepreneurs tend to choose a business that shows consistency between their personality characteristics and requirements for success. Additionally, they have a tendency to manage their businesses with use of their strong specific qualities. It is undisputed that the personality of the businessmen of micro-enterprises significantly influences their performance.When studying the indicators affecting entrepreneurial performance in the early years of entrepreneurship Omerzeland Kušce (2013) have revealed that in addition to financial performance measures of the company, a so-called perceived performance,cannot be neglected, for example, how entrepreneurs are satisfied with their success.Their results have shown, that the propensity for taking risks, self-efficacy and the need for independence are the most important factors influencing their personal performance.

The results of Valencia-de Lara andAraque-Hontangas (2012) suggest the existence of significant influence of various factors within the traditional psychology approach on the probability of starting a business. In relation to these factors, their study revealed a greater influence of gender and optimism upon business creation. In this sense, they found that male gender, as stated in entrepreneurship literature, is more prone to start ups, subjects steeped in optimism. They also found that these individuals have higher perception of opportunities and lower risk perception.

Taking into account the role of personality of the businessman in micro-enterprises and the persistent difficulty in obtaining external financial resources, there are interesting findings by Kozubíková et al (2015a) and Kozubíková et al (2015b), that the knowledge of lending criteria, which represents an important element in the management of SME's credit risk, is likely to depend on personal characteristics of entrepreneurs.

„Age of the company" plays an important role in the EO. Significant findings in this area were brought by the study of Anderson &Eshima (2013), dealing with the moderating effect of company's age and intangible resources on the EO-firm growth of the relationship among SMEs in Japan. They revealed that EO is positively related to firm growth among SMEs regardless of their age. However, it is when considered with the company age and EO along with firm intangible resources with EO; the results showed that growth rate is higher for younger SMEs than for the older firms. They have also found that, regardless of firm EO, if the company goes older, it has to maintain a lot of routine work, organizational procedures, lack of flexibility and decreased market responsiveness, and hence, these factors will limit the growth rate of this enterprise. Compared with Mason et. al. (2015), in their study from Italy and Austria, age presents a negative relation with company performance because with the age growing the firm´s business becomes more mature, providing a plausible explanation for declining performances.

Multiple authors are devoted to examining the relevance of *gender* in doing business. For example,Goktanand Gupta (2015) found out that individual EO is higher among men rather than women. They found that men are much more innovative, risk taking incentives and proactive in entrepreneurship development.This finding confirm Ayub et al. (2013), their results show that women have lower innovativeness and autonomy than the men, are more proactive and risk averse and less aggressive than the men are.On one hand Runyan et al. (2006) found out that females are more innovative than their male counterparts, but on the other hand, in risk taking females have scored more than the males and there were no significant differences found in proactiveness.The study of Sanchez-Escobedo, Diaz-Casero, Hernandez-MogollonandPostigo-Jimenez (2011) among university students suggests that male are more business oriented than the female students and that male students indicated that an entrepreneur should be risk taking, has to have intention to develop his/her country and investing money.

Also, the relationship between *education* and business is being explored in many studies. According to Zhang, Duysters, Cloodt (2013) a business education has a major positive impact on the business

plans. Given the nature of SMEs and especially because of the requirements of the entrepreneur himself who must fulfill multiple roles, and usually has to have professional training in relation to the subject matter, time management and personnel skills, knowledge of financial management and risk management, it can be assumed that relatively higher level of education of SMEs' entrepreneurs has a positive effect on EO of SMEs.

OBJECTIVES, METHODOLOGY, RESOURCES

The aim of this article is to examine the differences in the attitude of micro-enterprises' entrepreneurs in the Czech Republic to selected constructs of EO, concretely to innovativeness and competitive aggressiveness according to selected socio-demographic factors (gender, education and duration of doing the business). In accordance to the objectives, each studied construct of the EO was examined through two questions and different opinions between entrepreneurs men and women, university educated and businessmen with other type of education (secondary school and a secondary school with graduation), and "older" (active in the market for more than 10 years) and younger microenterprises (active in the market for less than 10 years), were observed.

The research of the business environment was prepared in 2014 and conducted in the Czech Republic in 2015. The companies were chosen from the Albertina database and totally 1650 randomly selected firms were addressed by e-mail or phone to fill in the questionnaire placed at the website https://docs.google.com/forms/d/1U9coaC5JRL0N2QOOO6Xb8j3mnaZXdSM47Kugt4EDGFo/viewform?usp=send_form. The data was provided by 1141 owners of SMEs in 14 regions of the Czech Republic. We gained the biggest amount of respondents in the Zlín Region (323), followed by the Moravian-Silesian Region with the total number of 276 respondents, the Olomouc region with 134 respondents, the South Moravian Region with 116 respondents, the Liberec Region with 58 respondents, the capital city of Prague with its 58 respondents, the Pardubice Region with 55 respondents, 31 respondents from the Plzeň Region, the Central Bohemian Region with 25 respondents, the Hradec Králové Region with 23 respondents, the Vysočina Region with 18 respondents, the South Bohemia Region with 11 respondents, the Ústecký Region with 10 respondents and the Karlovy Vary Region with only 3 respondents.

The questionnaire consisted of 52 questions. In this context, in the first nine questions the structure of the respondents in relation to their education, gender, age, the residency and size of a company, the length and area of conducting business, motives for starting a business and, which is the most important, characteristics of an entrepreneur were analyzed. The rest of the questions were the scale questions on a 1 to 5 scale (1-totally agree, 2-agree, 3-do not hold position, 4-disagree, 5-completely disagree) focused on five elements of entrepreneurial orientation.

The prevailing amount (740 of 1141) of respondents were micro-enterprises, so we decided to focus this article only on the sample of micro-enterprises. Within the structure they were as follows: 73% men and 27% women, 29% of university graduates and 71% of other graduates, 53% formed by companies operating in the market for more than 10 years and 47% were younger firms.

Taking into account entrepreneur´s gender and education and company´s age we have stated the following hypotheses:

H1: The owners of micro-enterprises consider innovation policy as necessary to remain on the market and regularly develop new products and services in their companies. We assume, there are no statistically significant differences among certain social groups (men and women, college-educated businessmen and others, companies with the period of existence over 10 years and younger companies).

H2: The owners of micro-enterprises are struggling to financially support innovative policies in their companies, but often they have limited access to external capital and therefore they invest enough money into the development of new methods and technologies.
We assume, there are statistically significant differences among certain social groups (men and women, college-educated businessmen and others, companies with the period of existence over 10 years and younger companies).

H3: The owners of micro-enterprises realize how important it is to anticipate and plan changes in customer needs and are trying to exploit anticipated changes to their target market.
We assume, there are no statistically significant differences among certain social groups (men and women, college-educated businessmen and others, companies with the period of existence over 10 years and younger companies).

H4:The owners of micro-enterprises perceive the intensity of competition and therefore theyalways take the initiative to get ahead of competition on their market.
We assume, there are statistically significant differences among certain social groups (men and women, college-educated businessmen and others, companies with the period of existence over 10 years and younger companies).

The associations in contingency tables were analyzed by Pearson statistics for counting of data. P-value is a function of the observed sample results relative to a statistical model, which measures how extreme the observation is.If the p-value is less than or equal to the chosen significance level (standard 5 %), the test suggests that the observed data are inconsistent with the null hypothesis, so the null hypothesis must be rejected. The null claims that there is no association between variables. The calculations have been performed using software available at http://www.socscistatistics.com/tests.

Statistically significant differences in the responses were examined through the Z-score. A Z-score is a measure of how many standard deviations below or above the population mean a raw score is. The Z score is a test of statistical significance that helps you decide whether or not to reject the null hypothesis.Calculations are made freely available via the following software: http://www.socscistatistics.com/tests/ztest/Default2.aspx.

RESULTSAND DISCUSSION

In Table 2 there are presented the results of research in the field of innovation, namely the evaluation of regular development of new products and services. (Numbers in Table 2-5 represent the amount of respondents).

In the research performed, 429 (58 %) of owners of micro-enterprises from a total of 740 have agreed that they regularly develop new products and services in their companies. Within the designated social groups so have agreed more men than women, people with other education than university graduates, and in the case of the length of doing the business the results were almost comparable (214 entrepreneurs of companies over 10 years old and 215entrepreneurs of firms younger than 10 years).

The resulting values of the test criteria (chi-square and p-value) have shown that there were no statistically significant differences in the overall structure of responses.

Statistically significant differences were not confirmed within the designated social groups through p-value from Z-score neither.

The results have confirmed the hypothesis H1.

The results in Table 3 are also related to the construct innovation, namely the opinion of the owners of micro-enterprises on investing money in the development of new methods and technologies.

Table 2

The opinion of microenterprises entrepreneurs in relation to regular development of new products and services in their firms

In my company we regularly develop new products and services	men	women	HE	OE	+10	-10	p-value from Z-score
Totally agree	47	26	25	48	36	37	0,0819 0,3030 0,5419
Agree	256	100	100	256	178	178	0,5287 0,5777 0,1556
Don't have a position	113	39	39	113	90	62	0,6672 0,3030 0,0719
Disagree	102	29	44	87	69	62	0,1645 0,2077 0,9920
Totally disagree	22	6	7	21	17	11	0,4965 0,6312 0,3843
Chi-square p-value	5,1122 0,2760		3,4955 0,4786		4,6829 0,3214		

Explanatory notes: HE – higher education, OE – other education (secondary school and high school with graduation), 10+ - companies that operate on the market for more than 10 years, 10- - businesses that operate on the market for less than 10 years.
P-value from Z-score – the first figure relates to the p-value from Z-score between men and women, the second figure relates to the p-value from Z-score between entrepreneurs with higher education and others, the third figure to the p-value from Z-score between companies operating on the market for more than 10 years and others.

Source: own calculation.

The results of our research confirmed partially the hypothesis H2. From a total of 740 micro-enterprises 220 (30%) of them have agreed with the claiming that they are investing a lot of money into the development of new methods and technologies. Men more often agreed than women, businessmen with a different education than university and micro-enterprises younger than those operating in the market for more than 10 years.

The resulting value of the test criteria (chi-square and p-value) have confirmed that there were statistically significant differences in the overall structure of responses in terms of the length of doing the business (9,9168/0,0419).

Within certain groups there were statistically significant differences by means of Z-scores found in agreeing answers among micro-enterprises operating in the market for more than 10 years and "younger" micro-enterprises(p-value = 0,0051). Those "younger" micro-enterprises have agreed more often with the question given than older companies. This is also confirmed by statistically significant difference in discordant responses within this group, and the older micro-enterprises more often disagreed with investing money into the development of new methods and technologies than "younger" micro-enterprises (p-value = 0,0404). The owners of micro-enterprises with non-university education completely disagreed with investing money in the development of new methods and technologies more often than university graduates (p-value = 0,0278).

Table 3

The opinion of micro-enterprises' entrepreneurs in relation to investing money in new methods and technologies

We invest a lot of money into the development of new working methods and technologies	men	women	HE	OE	+10	-10	p-value from Z-score
Totally agree	21	12	12	21	15	18	0,2150 0,3421 0,3953
Agree	136	51	48	139	82	105	0,9283 0,2380 *0,0051*
Don't have a position	155	64	67	152	121	98	0,3843 0,5485 0,3681
Disagree	189	63	67	185	146	106	0,3735 0,2891 *0,0404*
Totally disagree	39	10	21	28	26	23	0,2801 *0,0278* 0,9601
Chi-squarep-value	3,6136 0,4608		7,4201 0,1153		9,9168 *0,0419*		

Source: own calculation.

The results in relation to innovation are compatible with such findings by, for example, Goktanand Gupta (2015) and Ayub et al. (2013), that men are more innovative than women because both questions were answered consistently more often by male than female. Our results show, there has been found a relatively low percentage (30%) of micro-enterprises investing a large amount of money into the development of new methods and technologies and greater activity in this area by "younger" micro-enterprises than those companies operating in the market for more than 10 years, and may have caused on the one hand a certain degree of rigidity in established and used technologies by older businesses and unwillingness to change an existing system, learn to change, but also, for example, in insufficient monitoring of current trends or lack of financial resources for the implementation of innovations. As a consequence, these factors result in older businesses to reduce their performance, which corresponds to the view of Anderson & Eshima (2013) in that sense, that there is no will, but a necessity to maintain a lot of routine work, organization procedures, lack of flexibility and decreased market responsiveness can limit their growth rate.

An active approach to innovation in start-ups is also supported by the Government of the Czech Republic in its strategic plans (Ministry of Industry and Trade of the Czech Republic, 2013). For these starting innovation enterprises, that need entrepreneurial know-how, it offers consulting services in preparing a business plan and a quality coach through the first steps in ensuring its implementation. The next step that follows to support innovative starting SMEs is financing their development with the venture capital.

Statistically significant disagreement with an investment of money in the development of new methods and technologies for entrepreneurs with other than university education could ultimately mean less tendency to EO in these micro-enterprises, which would be confirmed by Zhang, Duysters, Cloodt (2013), according to which the education has a significant impact on business plans.

The results in Table 4 are related to competitive aggressiveness, namely evaluation efforts to exploit the anticipated changes in the target market.

Table 4

The opinion of microenterprises' entrepreneurs in relation to effort to use anticipated changes in the market

We try to exploit anticipated changes in our target market	men	women	HE	OV	+10	-10	p-value from Z-score
Totally agree	59	25	31	53	39	45	0,5485 0,0930 0,2225
Agree	295	113	114	294	209	199	0,6527 0,4593 0,3735
Don't have a position	140	49	57	132	110	79	0,6892 0,6965 0,0801
Disagree	41	12	11	42	31	22	0,4533 0,1676 0,3789
Totally disagree	5	1	2	4	1	5	0,5687 0,8181 0,0751
Chi-squarep-value	1,3707 0,8493		4,6930 0,3203		7,8140 0,0986		

Source: own calculation.

From a total of 740 owners of micro-enterprises 492 (66%) of them have agreed with the statement that they were trying to exploit anticipated changes in their target market. H3 hypothesis was confirmed. Men more often agreed than women, businessmen with a different education than university and micro-enterprises operating in the market for more than 10 years, but these differences were not statistically significant due to the specified level of significance.

There haven't been found any statistically significant differences in the overall structure of responses within established social groups neither.

The results in Table 5 are also related to the element of competitive aggression, namely the evaluation of the initiative of using the opportunities in the market.

The research results have shown that 427 owners of micro-enterprises, which was 58%, were always taking the initiative to get ahead of competition. Men more often agreed than women, businessmen with a different education than university and micro-enterprises younger than those operating in the market for more than 10 years. Hypothesis H4 was partially confirmed.

In the overall structure of the responses,when calculating the chi-square / p-value, there were statistically significant differences observed in terms of length of doing the business (10,3309/0,0352).

Within certain social groups, when calculating p-value from Z-score, there were statistically significant differences observed in affirmative responses also in relation to the criterion of length of doing the business. Micro-enterprises operating in the market within a decade were agreeing more often when compared to older companies (p-value = 0,0028).

Table 5

The opinion of microenterprises entrepreneurs in relation to effort to get ahead of competition

In our market, we always take the initiative to get ahead of competition	men	women	HE	OE	+10	-10	p-value from Z-score
Totally agree	30	17	16	31	27	20	0,1443 0,4354 0,5029
Agree	275	105	104	276	180	200	0,7039 0,2983 *0,0028*
Don't have a position	137	51	60	128	115	73	0,9681 0,3173 *0,0071*
Disagree	83	25	29	79	59	49	0,3271 0,5823 0,6672
Totally disagree	15	2	6	11	9	8	0,1527 0,5687 0,9840
Chi-squarep-value	4,8953 0,2982		2,4129 0,6603		10,3309 *0,0352*		

Source: own calculation.

In relation to the discussed issue of micro-enterprises' access to external finance, the results of the survey on competitive aggressiveness of studied micro-enterprises could be at least one-third of a positive finding. Provided, however, that further investigation would confirm that these micro-enterprises are autonomous and inclined to risk, which supports the findings of Moss, Neubaum and Meyskens(2015).

Due to the mentioned in the introduction importance of SMEs, the Government considers it essential for small and medium-sized entrepreneurs to have suitable environment for their activities that allows these companies to develop their ability to contribute to the economic growth and this effort is also included into the "Concept of support for small and medium-sized entrepreneurs for the period 2014-2020" (Ministry of industry and trade of the Czech Republic, 2013) among others. This document stresses that a positive impact on the functioning of the SME sector can be implemented only under the condition that this sector would maintain and further enhance its competitiveness, which is only possible, if it has been able to innovate more and reduce costs and gain a competitive advantage. By this it confirms the importance of both innovation and competitive aggressiveness for the SME sector and the need to base their competitiveness on the innovative competitive advantage.

Despite the fact that in the results of our research of the micro-enterprises the education has not been proven to be an important differentiating factor, the Government of the Czech Republic considers it to be one of the priorities mentioned in the Concept (MPO, 2013). Support tools would be focused primarily on the development of further professional education of employers and employees in the form of deepening, expanding, increasing, renewing or maintaining qualifications as well as the acquisition of key skills, increasing the sustainability of employment within the given small and medium-sized enterprise.

CONCLUSIONS

The aim of this article was to find out the differences in the attitude of micro-enterprises' entrepreneurs to innovativeness and competitive aggressiveness according to their gender and education and company´s age.

Our results have shown that 58 % of micro-enterprises regularly develop new products and services in their firms, which is very positive in relation to the importance and necessity of innovation, not only for SMEs and large companies, but also for micro-enterprises, in order to maintain the pace that come with today's dynamic and global economic world. On the other hand, we found that only 30% of surveyed micro-enterprises invested relatively a lot of money into the development of new methods and technologies, while more active in this area were "younger" micro-enterprises than the companies operating in the market for more than 10 years and micro-enterprises of the owners with higher education compared with others.

In relation to activities aimed against the competition, respectively on target to overtake the competition in the market, our results have shown that the majority of the surveyed micro-enterprises considered such element of EO as competitive aggressiveness to be very important. 66% of surveyed micro-enterprises are trying to exploit anticipated changes in the market and 58% of micro-enterprises to seize the initiative in order to get ahead of the competition.

Regarding the examined factors of gender and education of entrepreneurs and age of the company, there were statistically significant differences only with the length of doing the business and in a relatively small extent with the education of entrepreneurs. Specifically, „younger" micro-enterprises seek to invest in developing of new technologies relatively more money than micro-enterprises operating in the market for more than 10 years and develop greater initiative while searchingfor opportunities in the market to get ahead of their competition. In relation to education, innovations are supported with investments by the entrepreneurs with a high school education compared with others.

This study has some limitations because it was performed on a limited sample of respondents and has a regional character. Despite this study has the limited impact on the Czech level, but because of the vast majority of SMEs in the Czech Republic including micro-enterprises, our results confirm that it is necessary to pay attention to the issue of financing of microenterprises. The fact that only 30 % of surveyed micro-enterprises invest a lot of money into development of new methods and technologies may be related to the obstacles in obtaining external funds. This can be a subject of a future research.

ACKNOWLEDGEMENTS

This paper was created at the Tomas Bata University in Zlin and was supported by Project *IGA/FaME/2015/022: The influence of socio-demographic factors on the entrepreneurial orientation of SMEs´ entrepreneurs.*

REFERENCES

Anderson, B. S., Eshima, Y. (2013). The influence of firm age and intangible resources on the relationship between entrepreneurial orientation and firm growth among Japanese SMEs. *Journal of Business Venturing*, Vol. 28, pp. 413-429.

The association of SMEs and micro-enterprises (2009). Actuality. Available at: http://www.amsp.cz/mikrokredity-novy-evropsky-nastroj-pro-podporu-mikropodniku

Ayub, A., Razzaq, A., Aslam, M. S., Iftekhar, H. (2013).Gender effects on entrepreneurial orientation and value innovation: evidence from Pakistan.*European Journal of Business and Social Sciences,*Vol. 2, No 1, pp. 82-90.

Belás, J., Demjan, V., Habánik, J., Hudáková, M., Sipko, J. (2015), The business environment of small and medium-sized enterprises in selected regions of the Czech Republic and Slovakia, *E+M Ekonomie a Management,*Vol. 18, No 1, pp. 308-326.

Dvir, D., Sadeh, A., Malach-Pines. A. (2010). The Fit between Entrepreneurs' Personalities and the Profile of the Ventures the Manage and Business Success: An Exploratory Study. *Journal of High Technology Management Research,* Vol. 21, No 1, January, pp. 43-51.

European Commission (2006). The new definition of small and medium-sized enterprises (user guide and declaration model). ISBN 92-894-7917-5. Available at: http://www.szif.cz/cs/CmDocument%3Frid%3D%252Fapa_anon%252Fcs%252Fdokumenty_ke_stazeni%252Feafrd%252F1182414202559.pdf

Goktan, A. B., Gupta, V. K. (2015), "Sex, gender, and individual entrepreneurial orientation: evidence from four countries",*International Entrepreneurship and Management Journal,* Vol. 11, pp. 95-112.

Kozubíková, L.**,** Belás, J., Bilan, Y., Bartoš, P. (2015a). Personal characteristics of entrepreneurs in the context of perception and management of business risk in the SME segment. *Economics and Sociology,* Vol. 8, No 1, pp. 42-55.

Kozubíková, L., Belás, J., Ključnikov, A., Virglerová, Z. (2015b). Differences in approach to selected constructs of entrepreneurial orientation in SME segment regarding the selected socio-demographic factors. *Transformation in Business nad Economic,* Vol. 14, No. 3C(36C), pp. 333-355.

Lim, S., Envick, B. R. (2013). Gender and entrepreneurial orientation: a multi-country study. *IntEntrepManag J,* Vol.9, pp. 465-482.

Lukeš, M. (2013). Entrepreneurs as innovators: A multi-country study on entrepreneurs´innovativebehavior. *Prague Economic Papers,* Vol. 22, No 1, pp. 72-84.

Lumpkin, G. T., Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review,*Vol. 21, No 1, pp. 135-172.

Mahmood, R., Hanafi, N. (2013). Entrepreneurial Orientation and Business Performance of Women-Owned Small and Medium Enterprises in Malaysia: Competitive Advantage as a Mediator. *International Journal of Business and Social Science*. Vol. 4, No 1, pp. 82-90.

Mason, M. C., Floreani, J., Miani, S., Beltrame, F., Cappelletto, R. (2015). Understanding the Impact of Entrepreneurial Orientation on SMEs' Performance. The Role of The Financing Structure. 2nd Global Conference on Business, Economics, Management and Tourism, 30-31 October, Prague, Czech Republic. *Procedia Economics & Finance,* Vol. 23, pp. 1649-1661.

Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science,* Vol. 29, No 7, pp. 770-791.

Mishra, S., Lalumiere, M. L. (2011). Individual differences in risk-propensity: Associations between personality and behavioral measures of risk. *Personality and Individual Differences,* Vol.50, No 6, pp. 869-873.

Moss, T. W., Neubaum, D. O., Meyskens, M. (2015). The Effect of Virtuous and Entrepreneurial Orientations on Microfinance Lending and Repayment: A Signaling Theory Perspective. *Entrepreneurship Theory and Practice*, Vol. 39, No 1, pp. 27-52.

Ministry of Industry and Trade of the Czech Republic (2015). *Report on the development of small and medium-sized enterprises and their support in 2014.* Praha: MPO ČR. Available at http://www.mpo.cz/dokument164106.html

Ministry of Industry and Trade of the Czech Republic (2013). *Concept of Support for SMEs for a period 2014-2020.* Available at http://www.businessinfo.cz/cs/clanky/koncepce-politiky-msp-2014-2020-27913.html, 11. 1. 2013.

Omerzel, G. D., Kušce, I. (2013). The influence of personal and environmental factors on entrepreneurs' performance. *Kybernetes,*Vol. 42, No 6, pp. 906-927.

Runyan, C. R., Huddleston, P., Swinney, J. (2006). Entrepreneurial orientation and social capital as small firm strategies: a case study of gender differences from resources-based view. *Entrepreneurship Management,* Vol. 2, pp. 455-477.

Sanchez-Escobedo, M. C., Diaz-Casero, J. C., Hernandez-Mogollon, R., Postigo-Jimenez, M.V. (2011). Perceptions and attitudes towards entrepreneurship. An analysis of gender among university students. *International Entrepreneurship Management Journal*, Vol. 7, pp. 443-463.

Valencia-de Lara, P., Araque-Hontangas, N. (2012). Personality traits and attitudes of an entrepreneur: An empirical study. *Actual Problems of Economics,* Vol. 3, pp. 350-358.

Venkatraman, N. (1989). Strategic orientation of business enterprises: the construct, dimensionality, and measurement. *Management Science*, Vol. 35, No 8, pp. 942-962.

Zhang, Y., Duysters, G., Cloodt, M. (2013). The role of entrepreneurship education as a predictor of university students´ entrepreneurial intention. *Int Entrep Manag J,* Vol. 10, pp. 623-641.

Zortea-Johnston, E., Darroch, J., Matear, S., (2012). Business orientation and innovation in small medium-sized enterprises. *International entrepreneurship Management Journal*, Vol. 8, pp. 145-164.