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## Proactiveness, Competitive Aggressiveness and Autonomy: A Comparative Study from the Czech Republic\*\*

JEL Classification: L26; M21

**Keywords:** entrepreneurial orientation; micro enterprises; small and medium enterprises

Abstract: The purpose of this comparative study is to explore the differences in the entrepreneurial orientation (EO) between micro versus small and medium enterprises (SMEs). We have selected three dimensions of EO (proactiveness, competitive aggressiveness and autonomy) for our analysis. We have analyzed the data collected from 1141 respondents during the period of 2015 from 14 regions of the Czech Republic, which consists of 740 micro firms and 401 small and medium firms. Empirical results of our paper show significant differences between micro versus small and medium enterprises in terms of proactiveness and autonomy. However, we can only partially confirm that micro firms are statistically different from the SMEs in terms of competitive aggressiveness. Thus, our paper enables

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better understanding of the EO from the firm size perspective, when they have different levels of resources.

#### Introduction

Small and Medium Enterprises (SMEs) have got the utmost importance in the modern economies due to their quick adaptation with the changes in the business conditions, and also due to their significant contribution towards the economic growth. It is argued that a vibrate SME sector is the foundation of economic growth of the country and which will ultimately lead to the overall development of the standard of living by lowering unemployment (Jahur & Ouadir, 2012). However, a firm's survival is the major issue for the small businesses due to lack of strategic behavior of the entrepreneurs, and also due to suppressive behavior from the large corporate firms. Thornhill & Amit (2003) also find that firm survival is the lowest in the SME segment and, more importantly, when the firms are in their earlier stages of the development process. Hence, they argue that for the survival of the business it is necessary to have effective strategic decisions so that small firms can react timely with the hostile business conditions. At present, SMEs are not only the integral part of the Czech Republic economy, but they are also extremely important for the whole European Union economies, and as a result SMEs are one of the central point for academic research (Ivanova & Koisova, 2014). Beck et al. (2015) also find that microenterprises are a significant part of the economic growth in the underdeveloped countries by reducing poverty. However, Smekalova et al. (2014) argue that the influence of entrepreneurial activity on economic development is not solely a question of neither size of entrepreneurs' company nor of the schemes. It is strongly dependent on individuals, and particularly on their decision about establishing of a new entrepreneurial unit.

According to Ireland *et al.* (2003), it is important for the SMEs to develop strategic entrepreneurship which deals with the formation of competitive advantage by identifying new opportunities. Therefore, it is highlighted in the literature that Entrepreneurial Orientation (EO) of the entrepreneur is the key for identifying those new opportunities which consist of risk raking, innovativeness, autonomy, pro-activeness, and competitive aggressiveness (Lumpkin & Dess, 1996; Lumpkin *et al.*, 2009). Research in the field of entrepreneurship has found a positive link between EO and firm performance because it facilitates the firm to act in a timely manner, which is also essential for its survival (Munoz *et al.*, 2015). However, the moderation effect of the firm's performance can come from various sources, which may not be associated with the internal part of the business (Rauch *et al.*,

2009; Messersmith & Wales, 2011). The current new world is not only one, global, but represents thousands of worlds in which everyone is different – from the region through the site to the community and individuals. Globalization creates enormous pressure on the organization. SMEs must better develop an entrepreneurial culture, understand the risks and opportunities in the market and ensure their sustainability. It is positive that subconsciously companies acknowledge the fact that for a long-term success and ensuring the existence, it is not enough to simply watch what is happening on the market, but there is a need to be proactive, which means to seek new market opportunities (Kozubíkova *et al.*, 2015; Szwajca, 2016).

A large number of research shows that there are significant differences between the micro, small and medium firms in their decision making process due to their number of employees, and also as a result of their asset size (in general SMEs are defined as firms which have fewer than 250 employees in the European Union). However, it is necessary to distinguish between micro, small and medium firms in the SME segment, due to different level of resources at their disposal and which affect their basic business decisions and strategic innovativeness (Aldrich & Auster, 1986; Pett & Wolff, 2011). Lack of resources of the micro firms may limit their willingness to take more risk, to initiate any innovative ideas, be more aggressiveness or to be proactive, due to fear of failure. As the central argument in this paper, we employed Barney (1991) resource based view, and we argue that as micro firms have less resources than the small and medium firms. hence micro firms will be less entrepreneurial than the small and medium firms. However, when the firm increases its resources, in that case the fear of survival may not be substantial for the larger firms, and hence they can be more entrepreneurial than the micro firms. Therefore, the current research is initiated to highlight the differences between micro, small and medium firms in terms of their entrepreneurial orientation in the Czech Republic. In this paper, we have divided the segments into two parts. Micro firms where the number of employees are less than 10, and SME segment is considered where the number of employees are from 10 to 250.

While entrepreneurship research are overwhelmingly concentrated on the two most basic constructs of EO, for example risk taking and innovativeness (Munoz *et al.*, 2015; Jelenc *et al.*, 2015; Anderson & Eshima, 2013; Kraus, 2013; Mahmood & Hanafi, 2013; Moreno & Casillas, 2008; Runyan *et al.*, 2006). We have selected three other constructs of EO, namely: autonomy, proactiveness and competitive aggressiveness for our analysis, because they lack empirical research in the academic arena. Hence, our research can fulfil this gap and foster knowledge about EO research. Our results suggest that there are significant differences which can be noticed

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between the micro and SMEs in terms of their entrepreneurial orientation. Especially, our results indicate that small and medium firms are more proactive and autonomous than the micro firms. However, we did not find any conclusive answer regarding the competitive aggressiveness between the micro, small and medium firms. Therefore, our results partially suggest that EO can be more explained by the resources of the firm that it possesses, and which may help them to take more innovative decisions when there are not resource constraints.

According to our knowledge, this is the sole paper in the context of Central Europe to highlight the firm level differences in terms of the three EO constructs that we have presented in this paper. More importantly, this paper will enable to understand the EO according to the firm resource based view which is not that much highlighted in the entrepreneurship research. Thus, our research will contribute to a better understanding of the ongoing debate about the firm level differences in the entrepreneurial orientation.

The rest of the paper is structured as follows: section two documents the theoretical literature about entrepreneurial orientation, especially concentrating on proactiveness, competitive aggressiveness and autonomy. In the next section, objectives, methodology and resources of information which were used in our research are presented. Finally, the most important recommendations for theoretical area and the economic importance have been stated.

#### **Literature Review**

Entrepreneurial orientation (EO) has been an issue of organizational pursuit of entrepreneurial activities. Due to its importance in the strategic decision making for the development of new firms, it has been a central to entrepreneurship research for many decades. According to Lumpkin & Dess (1996), EO is an opportunity seeking behavior by which a new firm can take the initiative to start the new business by utilizing its resources. In the management research, it is assumed that the quality of entrepreneurship is esteemed from the various continuous variables that may affect the activities of the firm and hence, directly or indirectly all the firms have some EO (Barringer & Bluedorn, 1999). Therefore, the firm characteristics of EO may differ and which may range from lower level EO to higher level of the EO (Covin & Selvin, 1989). However, no conclusive definition is given for the EO. However, Covin & Wales (2011) regarded EO as an entrepreneurship process which is generated from the individual firm focused on the opportunity seeking behavior for market exploitation. Miller (1983) defined

three main dimensions of EO as innovativeness, proactiveness and risk taking. These three constructs of EO have been used in entrepreneurial orientation literature very often to understand the firm's EO level. See, for example, Dimitrator *et al.* (2002) and Kemelgor (2002). However, Lumpkin & Dess (1996) further extended the EO conceptualization by adopting two more constructs, such as competitive aggressiveness and autonomy. Hence, according to Lumpkin & Dess (1996), EO consists of five dimensions, and in this paper we have adopted three of them, namely: proactivness, competitive aggressiveness and autonomy. Rauch *et al.* (2009) find that in most of the cases, the EO research consists of only three dimensions of EO, (see, for example, Bhuian *et al.*, 2005; Covin *et al.*, 1994; Slater & Narver, 2000; Wiklund & Shepherd, 2003). Whereas, only George *et al.* (2001) used all the five dimensions of EO in their research.

In Table 1 we have presented some previous research definition about EO to provide more conceptual background that may help to further foster the understanding of EO literature.

**Table 1**. Definitions of Entrepreneurial Orientation

| Authors          | <b>Definition of EO</b>  |
|------------------|--|
| Mintzberg (1973) | "In the entrepreneurial mode, strategy-making is dominated by the active<br>search for new opportunities" as well as "dramatic leaps forward in the face |
|                  | of uncertainty" (p. 45).   |
| Miller (1983)    | "An entrepreneurial firm is one that engages in product-market innovation,   |
|                  | undertakes somewhat risky ventures, and is first to come up with 'proactive'   |
|                  | innovations, beating competitors to the punch" (p. 771).   |
| Covin & Slevin   | "Entrepreneurial firms are those in which the top managers have entrepreneur-  |
| (1998)           | ial management styles, as evidenced by the firms' strategic decisions and  |
|                  | operating management philosophies. Non-entrepreneurial or conservative   |
|                  | firms are those in which the top management style is decidedly risk-averse,  |
|                  | non-innovative, and passive or reactive" (p. 218).   |
| Lumpkin & Dess   | "EO refers to the processes, practices, and decision-making activities that lead   |
| (1996)           | to new entry" as characterized by one, or more of the following dimensions:  |
|                  | "a propensity to act autonomously, a willingness to innovate and take-risks,   |
|                  | and a tendency to be aggressive toward competitors and proactive relative to   |
| -                | marketplace opportunities" (pp. 136–137).  |
| Zahra &          | "The sum total of a firm's radical innovation, proactive strategic action, and   |
| Neubaum (1998)   | risk taking activities that are manifested in support of projects with uncertain   |
|                  | outcomes" (p. 124)   |
| Pearce et al.,   | "An EO is conceptualized as a set of distinct but related behaviors that have  |
| (2010)           | the qualities of innovativeness, proactiveness, competitive aggressiveness,  |
|                  | risk taking, and autonomy" (p. 219).   |

Source: own work.

Research in the field of SME segment find that there are significant differences between the small and large firms, due to the assets at their disposal, which give them more flexibility and foster innovativeness (Salavou et al., 2004). Hence, flexibility in their resources helps them to be more entrepreneurial, because when the firm size is large, they can take more initiatives since survival issue is not the main concern for them anymore. On the other hand, micro firms are in the sharp edge of the razor and they can be eliminated from the market if they take any wrong steps in terms of innovativeness or riskiness. Aldrich & Auster (1986) enlighten the resource constraints of the small firms, and they find that small firms have lower liability and also they possess lower level of assets at their disposal. Similarly, Barney (1991) resource based view suggests that risk taking, being more aggressive, or more proactive, can be a luxurious decision for the micro firms. In contrast, the situation is not true for the older or matured firms which have more assets and established market orientation in their own business segments. Pett & Wolff (2011) also find result consistent with the resource limitations view, and show that micro firms have a lower level of EO than the small and medium firms. They also argue that as the firms grow, the management of the business may want to exploit new markets and, as a result, they can take aggressive decisions. Similarly, to attract new customers they have to innovate new products consistently, but which is not the case for the micro business as they are still in the rigid conditions for their business to grow. Therefore, it is quite obvious that small and medium firms can have more EO which stems from their flexibility in resources at their disposal.

Proactiveness: Measures the firm opportunity seeking tendency by which it can exploit the market by initiating new products and services (Rauch et al., 2009). Entrepreneurial research find that being proactive can positively affect the firm performance due to first mover advantage. Since being proactive can reduce the market competition as a result of advanced decision making, it can increase the profitability of the firm (Lechner & Gudmundsson, 2014). Hughes & Morgan (2007) find that proactiveness deals with the anticipation of future demand and act on that. Thus, having strategic decision making about the future market condition can be helpful to increase the overall profitability of the firm. Nevertheless, entrepreneurship research also suggest that at times firms being more proactive can be in danger of extinction, since, it is possible that the market does not change according to the anticipation of the entrepreneur (Allen et al., 2006). Similarly, Welsh et al. (2013) also find that proactiveness is related to the new product development and increase in the sales of the firms, which ultimately increases the growth of the SMEs. Munoz et al. (2013) find similar results in the Malaysian market and suggest that proactiveness is related to the higher sales, net profit and company growth. Egdys (2016) by using a sample of 137 SMEs in the Polish market, found that, proactiveness can increase the innovative behavior of the firm and is more relevant for the small firms than the micro firms. Jelenc *et al.* (2015) utilized the data from the Croatian SME market and they also found that being more proactive can significantly increase the market share of the firms. However, they did not differentiate between micro or other segments. Apart from the proactiveness and firm performance, Anderson and Eshima (2013) showed that small firms are more proactive when they have more intangible assets and micro are less proactive. Interestingly, the result show that the growth rate is higher for the young firms than for the small ones. It is shown that regardless of the EO, small and medium firms lack flexibility in terms of market conditions, lot of paperwork and administration process can hamper the growth rate of the firm.

Competitive Aggressiveness: "Competitive aggressiveness refers to a firm's propensity to directly and intensively challenge its competitors to achieve entry or improve situation that is to outperform industry rivals "Lumpkin & Dess (1996). As mentioned elsewhere, competitive aggressiveness is vital to act timely in the market conditions by outperforming the competitors. Acting aggressively in the market may lead the firm to take initiatives such as cutting prices, adopting aggressive marketing strategies or increasing the product capabilities. In some cases, firms adopt this EO as a result of creating more market demand or to achieve economies of scale. Similarly, a firm can also engage in competitive aggressiveness when they cut down the prices radically to increase the market penetration, or just to create a monopoly nature of the product. However, this strategy may not be suitable for firms which have resource limitations, because they may not be able to reduce the product costs, since they cannot operate at the maximum level of economies of scale (Blumentritt & Danis, 2006). Lechner & Gudmundsson (2014) argue that small firms are more vulnerable to the changes in the market competition and, as a result, they have to be more aggressive to beat the market competition to create a safety net for their survival. On the other hand, Moss et al. (2015) find that if micro firms can show a better competitive aggressiveness, it is most likely that they can be funded by banks as a result of signaling approach in the market. Thus, it suggests that banks can increase the funding level of firms when they can get the information that the firm is competitive. which may lead to an easy access to finance.

Autonomy: Autonomy refers to an independent action of an individual or a team in bringing forth an idea of vision and carrying it through to completion (Lumpkin & Dess, 1996). Autonomy in the EO context is clearly a vital aspect of entrepreneurial value creation and central to the notion of strategic entrepreneurship. Autonomy may not be an issue among independently owned and managed firms, because such founders are already acting autonomously (Lumpkin et al., 2009). According to a study of 72 subsidiaries of micro, small and medium-sized Italian companies, by Pisoni et al. (2013), subsidiary's autonomy reflects the local country's characteristics, but not the economic development. Their findings also show that the subsidiaries looking for penetrating the local market are generally more autonomous than the ones pursuing cost-cutting strategies. According to Clear & Dickson (2005), there are some task elements which must necessarily by taken into account when considering the autonomy: the method of working, pace of work, procedures, scheduling, work criteria, work goals, the workplace, work evaluation, working hours, kind of work and amount of work. The authors state that differing levels of worker autonomy are reflected in the level of trust held in them by employers. They consider telework as a way increasing autonomy. Regarding the autonomous difference between micro and small firms Ismail (2014) shows that there is no difference between the micro, small and medium firms in terms of the need for autonomy. Hence, it suggest that autonomous decision making is the same regardless of the firm size. On the other hand, Thapa (2015) shows that there is a positive correlation between the autonomous decision making and microenterprises performance. Therefore, the evidence suggests that micro firms may enjoy the autonomous decision making as a result of their small size, as they require less paperwork or less administrative process to be an independent decision maker.

### Research Methodology

The aim of this article is to explore the question of proactiveness, competitive aggressiveness, and autonomy as an element of EO in the segment of SMEs in the Czech Republic according to the firm size.

The research was 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 website<sup>1</sup>. The data was provided by 1141 owners of SMEs in 14 regions of the Czech Republic. The questionnaire consisted of 52 questions. In this context, in the first nine questions the structure of the respondents in

 $^{1} https://docs.google.com/forms/d/1U9coaC5JRL0N2QOOO6Xb8j3mnaZXdSM47Kugt4EDGFo/viewform?usp=send\_form.$ 

relation to their education, gender, age, the residency and size of a firm, the length and area of conducting business, motives for starting a business and the most important characteristics of entrepreneur were analyzed. The rest of the questions were scale questions on a 1–5 scale (1 – totally agree, 2 – agree, 3 – do not hold a position, 4 – disagree, 5 – completely disagree) focused on five elements of entrepreneurial orientation.

In accordance to the set objective, nine questions (three questions for each of the elements) were chosen to find out the results about proactiveness, competitive aggressiveness and autonomy of the firms. The first set of questions are about measuring the firm level proactiveness which are given respectively for better understating in relation to the results tables.. "We try to use anticipated changes in our target market" (question 1), "We take initiative in our market to get ahead of the competition (question 2)" and "We try to form entrepreneurial environment, in which we operate" (3).

Afterwards, we measured the firm level of competitive aggressiveness which consists of the following questions- "our firm has a reputation of aggressive firm (4)", our activities against competitors are aggressive (5)"and we often realize activities aimed against competition (6)".

Finally, the autonomous decision making of the firm was highlighted by the following set of questions- "My firm has a reputation of an autonomous firm"(7), "I consider employees in my firm to be appropriately autonomous (8)", I support initiative of my employees when searching new entrepreneurial opportunities (9)"

The structure of the sample according to the business area was as follows: trade companies (33%), manufacturing companies (23%), construction companies (14%), transport companies (6%) and agricultural firms (3%). The largest portion of companies operated in other sectors (39%). The sum is more than 100 % because some respondents chose more than one business area.

In relation to the gender and age of the entrepreneur the structure of the sample was as follows: 75% men (861 respondents) and 25% women (280 respondents), 48% older entrepreneurs – more than 45 years (542 respondents) and 52% younger entrepreneurs – less than 45 years (599 respondents).

In accordance with the length of doing the business, from the total number of 1.141 companies, 62% (705 firms) of them were doing the business for more than 10 years, 38% (436 firms) of them for less than 10 years.

According to the goal of the research, we have developed the following hypotheses:

H1: There are statistically significant differences between micro, small and medium firms in relation to proactiveness. We assume that small and medium enterprises are more proactive than the micro firms.

H2: There are statistically significant differences between micro, small and medium firms in relation to competitive aggressiveness. We assume that small and medium firms will be more competitive than the micro firms.

H3: There are statistically significant differences between micro, small and medium firms in relation to autonomy. We assume that small and medium firms will be more autonomous than the micro firms.

The associations in contingency tables were analyzed by Pearson statistics for counting of data. P-value has been compared to standard 5 % confidence level. P-value that is lower than the confidence level leads to the rejection of the null hypothesis. The null claims there is no association between the variables. The calculations have been performed using software available at http://www.socscistatistics.com/tests. Statistically significant differences in particular responses were examined through the Z-score. The calculations were carried out through open-source software: http://www.socscistatistics.com/tests/ztest/Default2.aspx.

#### **Results and Discussion**

Table 2 shows our research results which have combined from three questions to measure the differences in the firms' proactiveness level. Our results suggest that there are differences between the micro versus small and medium firms in terms of their proactiveness and the results from Chisquare are significant at 5% level as well as 10% significance level. In particular, we have found that 492 (about 67%) among 740 micro firms' respondents agree and totally agree that "we try to use anticipated changes in our target market". However, 321 (about 80%) among 401 respondents from small and medium enterprises agree and totally agree with the same question. The P-value from Z score is also significant at 1% level, and hence it suggest that small and medium firms are more proactive than the micro firms. In terms of our second question of proactiveness (we take initiative in our market to get ahead of a competition) the P value < 5% also suggest that there are significant differences exists between the micro, small and medium firms. Our segmented result shows that about 58% of the total respondents from the micro segment agree and totally agree with the notation (2), however, about 70% of the respondents from the small and medium segment agree and totally agree. As such, the P-value from Z scores shows a statistical difference in the segment of opinion between micro, small and medium firms and, therefore, we find positive result according to our expectation that micro firms are less proactive than the small and medium firms. We have found similar result for our question 3 (we try to form entrepreneurial environment in which we operate) for proactiveness. It suggests that about 69% of the respondents from the small and medium segment agree and totally agree, whereas about 62% of our respondent in the micro segment indicate that they are proactive and the result is also significant at the 5% level. Thus, all of our results for proactiveness suggest that micro firms are less proactive than the small and medium firms. Therefore, by way of preview we can accept our hypothesis 1.

Table 2. Measure of proactiveness in between micro and SMEs

|  | Question 1              |                         | Question 2              |                         | Question 3              |                         | P value                          |
|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|----------------------------------|
|  | Micro                   | SMEs                    | Micro                   | SMEs                    | Micro                   | SMEs                    | from<br>Z-score                  |
| Totally<br>agree<br>and<br>agree           | 492<br>( <b>66.48</b> ) | 321<br>( <b>80.05</b> ) | 427<br>( <b>57.70</b> ) | 277<br>( <b>69.08</b> ) | 457<br>( <b>61.76</b> ) | 275<br>( <b>68.58</b> ) | <0,0001<br>0,0002<br>0,0223      |
| Have no opinion                            | 189<br>( <b>25.54</b> ) | 62<br>( <b>15.46</b> )  | 188<br>( <b>25.41</b> ) | 82<br>( <b>20.45</b> )  | 193<br>( <b>26.08</b> ) | 88<br>( <b>21.94</b> )  | <b>8E-05</b><br>0,0601<br>0,1211 |
| Totally<br>disagree<br>and<br>disagree     | 59<br>( <b>7.98</b> )   | 18<br>( <b>4.49</b> )   | 125<br>( <b>16.89</b> ) | 42<br>( <b>10.47</b> )  | 90<br>( <b>12.16</b> )  | 38<br>( <b>9.48</b> )   | <b>0,0251 0,0034</b> 0,1707      |
| Chí-<br>square                             | 23.4141                 |                         | 21.2023                 |                         | 8.0145                  |                         |                                  |
| P-value                                    | 0.0001                  |                         | 0.0003                  |                         | 0.091                   |                         |                                  |
| Total<br>number<br>of Micro<br>and<br>SMEs | 740                     | 401                     | 740                     | 401                     | 740                     | 401                     |                                  |

Note: small and medium firms are merged together as SMEs. Response percentages are in parentheses.

Source: own calculations.

In Table 3 we have presented the result of competitive aggressiveness in between the micro, small and medium firms. The result shows that statistical differences exist in relation to the question number 4 and 5 and the results are significant at the 5% level in our segment of analysis. However, we did not find statistical difference in question number 6 about the com-

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petitive aggressiveness. Therefore, we can only partially confirm our hypothesis 2 that there are significant differences exists between micro and SME segment as we do not have any complete indication in relation to all the questions of competitive aggressiveness. Regarding the question number 4 (our firm has a reputation of an aggressive firm) we see that only about 10% of the micro firms agree and totally agree, as opposed to only about 13% of the firm in the small and medium and segment have agreed and totally agreed with the same question. Thus, it shows that regardless of the firm size, entrepreneurs do not believe that their activities in the market are aggressive. Similarly, in relation to question 5 (our activities against competition are aggressive) is also found statistically insignificant in the SME segment. Chi-Square shows significant differences between micro, small and medium firms in relation to the question number 5. It is possible that the result may stemmed from the overall question which also included disagree and totally disagree. But the P value result from Z score do not show such differences between the micro, small and medium firms.

Table 3. Measure of competitive aggressiveness in between micro and SMEs

|                                   | Question 4              |                         | Question 5              |                         | Question 6              |                         | P value<br>from                          |
|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--|
|                                   | Micro                   | SMEs                    | Micro                   | SMEs                    | Micro                   | SMEs                    | Z-score                                  |
| Totally agree<br>and agree        | 71<br>( <b>9.59</b> )   | 50<br>( <b>12.47</b> )  | 92<br>( <b>12.43</b> )  | 53<br>( <b>13.22</b> )  | 157<br>( <b>21.22</b> ) | 76<br>( <b>18.95</b> )  | 0,1310<br>0,7040<br>0,3628               |
| Have no opinion                   | 175<br>( <b>23.65</b> ) | 98<br>( <b>24.44</b> )  | 130<br>( <b>17.57</b> ) | 92<br>( <b>22.94</b> )  | 162<br>( <b>21.89</b> ) | 109<br>( <b>27.18</b> ) | 0,7642<br><b>0,0228</b><br><b>0,0455</b> |
| Totally disagree and disagree     | 494<br>( <b>66.76</b> ) | 253<br>( <b>63.09</b> ) | 518<br>( <b>70.00</b> ) | 256<br>( <b>63.84</b> ) | 421<br>( <b>56.89</b> ) | 216<br>( <b>53.87</b> ) | 0,2097<br><b>0,0323</b><br>0,3299        |
| Chí-square                        | 16.817<br>1             |                         | 12.8283                 |                         | 4.2767                  |                         |  |
| P-value                           | 0.0021                  |                         | 0.0121                  |                         | 0.3699                  |                         |  |
| Total number of<br>Micro and SMEs | 740                     | 401                     | 740                     | 401                     | 740                     | 401                     |  |

Note: small and medium firms are merged together as SMEs. Response percentages are in parentheses.

Soruce: own calculations.

Therefore, we cannot clearly comment on whether micro firms are less competitive than the small and medium firms. Lastly, in relation to question number 6 (we often realize activities aimed against competition) regarding the competitive aggressiveness shows that there are no statistical difference

exists between micro, small and medium enterprises. The results therefore, suggest that regardless of the firm size entrepreneur do not actually realize their activities to beat the market competition. Hence, our results suggest that firms are happier to involve in passive actions in the market. It is possible to say that SMEs are more price takers than the price makers, due to their limitation in the resources.

In Table 4 we have presented our results for the autonomous behavior of the firms in the SME segment. The results suggest that we have significant differences between the micro, small and medium firms in relation to autonomy. Therefore, according to the results, we can accept our hypothesis 3, and we can infer that employees in the micro firms are less autonomous than the employees in the small and medium firms. According to question number 7 ( my firm has a reputation of an autonomous firm), we see that P value is lower than the 5% significant level, and as a result we can infer that micro firms are less autonomous than the small and medium ones. It has been found that about 49% respondents from micro firms agree and totally agree versus about 43% of the respondent giving the opinion about their autonomy in the firm level. This result can be significantly inflated from the neutral position of the firm about their autonomous decision making process. As we can see, about 24% of the micro firms and about 19% of the small and medium firms have neutral position regarding their autonomy position in the firm. Similarly, in relation to question 8 (I consider employees in my firm to be appropriately autonomous) Chi-square P value is lower than 1% significant level, and that suggest that micro firms employees have limited autonomous decision making independence than the small and medium firms. In particular, we find that about 73% of the respondent from small and medium firms versus about 61% entrepreneur in the micro segment regarded that their employees can act autonomously. Finally, regarding question 9 (I support initiative of my employees when searching new entrepreneurial opportunities), our results are statistically significant at 5% significance level, and we find that micro firms have lower level autonomous decision making than the small and medium firms. Segmented analysis shows that about 77% of the small and medium firms provided positive response about the autonomous decision making of their employees while looking for new opportunities. In contrast, about 68% of the micro firms provided the positive response about the support to the employees when looking for new opportunities and it shows that small and medium firms gives more freedom to their employees compared to the micro firms.

Table 4. Measure of autonomy in between micro and SMEs

|   | Question 7              |                         | Question 8              |                         | Question 9              |                         | P value<br>from                          |
|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--|
|   | Micro                   | <b>SMEs</b>             | Micro                   | <b>SMEs</b>             | Micro                   | <b>SMEs</b>             | Z-score                                  |
| Totally agree and agree                 | 358<br>( <b>48.38</b> ) | 170<br>( <b>42.40</b> ) | 450<br>( <b>60.81</b> ) | 290<br>( <b>72.32</b> ) | 500<br>( <b>67.57</b> ) | 306<br>( <b>76.31</b> ) | 0,0523<br><b>0,0001</b><br><b>0,0018</b> |
| Have no opinion                         | 172<br>( <b>23.24</b> ) | 73<br>( <b>18.20</b> )  | 206<br>( <b>27.84</b> ) | 55<br>( <b>13.72</b> )  | 191<br>( <b>25.81</b> ) | 74<br>( <b>18.45</b> )  | 0,0477<br>0<br>0,005                     |
| Totally<br>disagree and<br>disagree     | 210<br>( <b>28.38</b> ) | 158<br>( <b>39.40</b> ) | 84<br>( <b>11.35</b> )  | 56<br>( <b>13.96</b> )  | 49<br>( <b>6.62</b> )   | 21<br>( <b>5.24</b> )   | <b>0,0001</b><br>0,2005<br>0,3524        |
| Chí-square                              | 17.27                   |                         | 31.9011                 |                         | 10.7526                 |                         |  |
| P-value                                 | 0.0017                  |                         | <0,00001                |                         | 0.0295                  |                         |  |
| Total<br>number of<br>Micro and<br>SMEs | 740                     | 401                     | 740                     | 401                     | 740                     | 401                     |  |

Note: small and medium firms are merged together as SMEs. Response percentages are in parentheses.

Soruce: own calculations.

As we already mentioned elsewhere, the goal of our paper is to identify the firm level differences in the SME segment in relation to their EO. With regard to the view of Barney (1991), central to our argument of resource constraint we have found statistical difference in relation to the proactiveness and autonomy between micro, small and medium firms, however we have found partial confirmation about competitive aggressiveness. Nevertheless, our results are not always supported at the prescribed significance level, but it was possible to identify the firm level differences ina majority of the cases. Our results presented in the paper are very similar to the work of Pett & Wolff (2011), who also discovered that small and medium firms are more innovative in terms of their strategic decision making than the micro firms. As EO studies are overwhelmed with the performance measurement, our result may shed light in understanding the basic differences in the firm level, where firms in the SME segment are not identical due to their resource accumulation. Firms can be more entrepreneurial, or they may experiment with new things, and they can also outperform their rivals by showing competitive behavior, if they have flexibility in their tangible and intangible resources. Unlike micro firms, which are always in danger of extinction, it may be difficult for them to act entrepreneurially with their small asset base to overcome the market competition, or to provide more decision-making authority to the employees. In such circumstances, our

results suggest that micro firms may act more passively in the market, and they would be happy to be price takers rather than the price makers. However, in terms of assets the difference between small and medium firms can be lower, but if they are compared with resources of micro firms, they can be much higher. As a result, it is possible that small and medium firms may act in the same direction about their entrepreneurial decision-making, but micro firms are identically different from them, and hence micro firms decision-making process can be different from the SMEs. However, when the firm is getting more mature, it also accumulates more assets under its disposal, therefore, small and medium firms would take more initiative decisions, which may give them the opportunity to enter into the new markets, or they may develop new product that can help them to penetrate the market even better. Our results also suggest the same difference in relation to their EO and firm level differences. As written elsewhere, Lumpkin & Dess (1996) state that the level of autonomy differs depending on the size of the company, management style or type of assets. According to Clear & Dickson (2005), there are some task elements which must be taken into account when considering the autonomy: the method of working, pace of work, procedures, scheduling, and work criteria.

#### **Conclusions**

The aim of the paper was to identify the firm level differences in between the micro, small and medium enterprises in relation to their EO. Since EO is now one of the central research topic in the entrepreneurship and strategic management, due to significant positive association is found in between EO and firm performance. In this paper, we have examined three constructs of EO, for example, proactiveness, competitive aggressiveness and autonomy in relation to firm size, as firms have different levels of assets, and that may affect their competitive decision making process. Hence, we have employed resource constrained view as our central argument in this paper.

The empirical results of our paper suggest that micro firms have a lower level of EO. Particularly, they are less proactive and autonomous than the small and medium firms. However, we can only partially confirm that micro firms are significantly different from the small and medium firms in terms of competitive aggressiveness. The result of our paper suggests that it is possible that entrepreneurial decision making may be more related to the assets that a firm that they possesses, and due to that different firms act differently in terms of their entrepreneurial decision making.

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Regardless of important findings about the micro, small and medium enterprises, our paper has some limitations. In this paper we have only differentiated the firms according to their sizes, however, we did not investigate any entrepreneur characteristics related to decision making such as the gender of the entrepreneur, education level, business experience. Moreover, our data set is only limited to the Czech Republic, and as a result we cannot generalize our results with other countries, where economic and financial differences are relevant. Similarly, we have not considered all five constructs of EO, hence we cannot comment on the riskiness and innovativeness of the firms and whether they are also affected by the firm level differences. Thus, we are leaving them for potential future research problems.

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