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Entrepreneurial orientation of SMEs' executives in the comparative perspective for Czechia and Turkey

JEL Classification: *I21; L26; M12*

Keywords: *entrepreneurial orientation; Czech SMEs; Turkish SMEs; age, gender and educational status of SMEs' executives*

Abstract

Research background: The executives of SMEs that have higher innovativeness, risk taking, proactiveness, competitive aggressiveness and autonomy dynamize the strategic posture of SMEs, thus, those firms can reach better financial and economic conditions. However, existence of many differences among countries, such as cultural values and market conditions, can cause variations in EO of these executives. Therefore, this fact can be one of the reasons why the performance and financial power of SMEs differ in various countries.

Purpose of the article: This study aspires to find out the differences in entrepreneurial orientation (EO) of younger and older, female and male, and more and less educated executives of SMEs from various countries.
Methods: 1141 Czech and 479 Turkish executives were analyzed separately by the Mann-Whitney U test, to find out the differences in EO. The researcher ran the analyzes by SPSS Statistical Software.
Findings & Value added: The results indicate that risk-taking and competitive aggressiveness of the executives differ regarding their gender, while innovativeness, proactiveness and autonomy do not. While there are significant differences between proactiveness, autonomy and innovativeness of older and younger executives, no differences exist in risk-taking and competitive aggressiveness. Regarding educational status, more educated executives perform better in innovativeness, proactiveness and autonomy, while less educated executives have higher propensities in risk taking and competitive aggressiveness. Masculinity, fear of failure, perception of obstacles, motivation of SMEs' executives and location of businesses might be the reasons of these results. By including the survey respondents from different countries and all dimensions of EO into the analyses, this study finds similarities and differences in gender, age and education levels and of SMEs' executives and their EO. This research also suggests some policies for governments and institutions to close the gap between EO of the executives. These facts not only make this research to unique, but also constitute a valuable addition to the literature.

Introduction

The positive influences of small and medium-sized enterprises (SMEs) on the world economy have been increasing during recent years, especially in terms of their positive influence on labour markets and creation of new products and services. In order to sustain their contributions on economies, they need to catch up good performance, income and profit levels. However, this goal is tough to achieve due to facing many internal and external financial or non-financial obstacles. Within this context, this study pays regard to Entrepreneurial Orientation (EO) that might reduce the obstacles of SMEs to hit their targets. This is because EO influences the performance (Kraus *et al*., 2012, pp. 161–182) and growth of SMEs (Islam *et al*., 2011, pp. 289–299) and thus the competitiveness of countries (Verner, 2011, pp. 3–10; Wichitsathian & Nakruang, 2019, pp. 977–979).

As playing the leader role in their businesses, managers, CEOs, shareholders and owners might influence SMEs' performance and survival. The differences in EO of these executives might change the directions of firms and impact their future development under the circumstances of various countries. For those reasons, finding differences among EO of executives can give clues about the success of enterprises. In this regard, the research aims to explore the differences in EO of executives of Czech and Turkish SMEs regarding their gender, age and education in the national context.

The percentages of SMEs that operate in the Czech Republic and Turkey is more than 99% of the total number of businesses in both countries

(2017 SBA Fact Sheet Czech Republic; KOSGEB, 2015–2018 KSEP Report, Turkey). According to OECD Report (2019), the number of SMEs in the Czech Republic and Turkey are 1.1 million and 2.7 million, respectively. Moreover, the percentage of total exporting activities of Turkish (KOSGEB 2015–2018 KSEP Report) and Czech SMEs (OECD, 2019) are almost the same. However, due to operating in different market conditions (Laukkanen *et al*., 2013, pp. 510–535) with various cultural values (Kreiser *et al*., 2010, pp. 959–984) the EO of SMEs' Czech and Turkish executives can differ. In this regard, examining the EO of the executives in both of those competitive markets can make a great contribution to entrepreneurship literature.

Enterprises with higher EO are more likely to survive than other firms in recession periods. This is because innovativeness and proactiveness allow businesses to overcome obstacles regarding their business activities in tougher times (Soininen *et al*., 2012, pp. 927–944). Moreover, production of new goods, responding to customer demand and impacting their buying behaviours, and having more advantages against competitors can be gained by SMEs and entrepreneurs that have higher EO (Zortea-Johnston *et al*., 2012, pp. 145–164). All those positive influences of EO on executives and SMEs are the reasons why this body of research mainly focuses on this topic.

On the other hand, the differences between a firm's age (Laforet, 2013, pp. 490–502) and size (Pett & Wolf, 2012, pp. 48–59; Petrakis, 2005, pp. 233–242) regarding EO dimensions have also been confirmed by some researchers. Except for the above-mentioned determinant factors that can impact the EO of executives, there are some other characteristics that lead SMEs' executives to differ in terms of EO, such as gender, education and age. By including these determinant factors in the analyses, this research also extends its scope and differs from other researches.

On top of that, some studies also focus only on the EO of SMEs (Gergely, 2016, pp. 55–65) or owners and entrepreneurs of SMEs (Kozubikova *et al*., 2017, pp. 36–50). Apart from these pieces of research, this paper also includes other respondents that are the executives of SMEs, such as shareholders, CEOs, finance and accounting managers. Moreover, although some studies compare the EO of SMEs or entrepreneurs from different countries (Laukkanen *et al*., 2013, pp. 510–535; Kreiser *et al*., 2010, pp. 959–984), the bodies of research that consider more measurements of EO, such as autonomy and competitive aggressiveness (Lumpkin & Dess, 1996, pp. 135–172), are hardly present in the literature. In this regard, analysing all dimensions of EO and respondents from different job positions and countries enables this paper to make significant value addition to the aca-

demic literature. Therefore, academicians, policy makers, entrepreneurs, national and international financing institutions might be interested in the findings of this research.

The rest of the paper will be presented as follows. The literature review section clearly cites the related studies in literature. Section 3 presents information about the purpose of this study and research methodology, as well as the data in detail. In section 4, the results of the research will be clarified. The potential reasons and some evidences about the findings of this study will be reported in section 5, namely discussion. Lastly, the researchers will sum up the main results and their reasons in the conclusion section, and mention some policies that governments can apply.

Literature review

Regarding the first dimension of EO, namely, innovativeness, it improves creativity to respond potential and existing customers' demands (Laukkanen *et al*., 2013, pp. 510–535). Moreover, it enables entrepreneurs and firms to find or invest in new products, processes, models and methods for their activities no later than their competitors (Jantunen *et al*., 2005, pp. 223–243). Risk-taking tendency makes entrepreneurs and managers to be more informed about the conditions of their firms and markets, so they can improve their competencies and become more experienced to overcome issues in hazardous circumstances (Frank *et al*., 2007, pp. 227–251). According to Kozubikova *et al.* (2017, pp. 36–50), an entrepreneur should be tolerant in risk acceptance and potential losses after making risky decisions. Since risks can be evaluated and manageable, entrepreneurs can be aware of how to take risky actions and how to find solutions in risky situations (Filser & Eggers, 2014, pp. 55–65).

Proactiveness is a competency to anticipate alterations, issues and opportunities (Rauch *et al*., 2009, pp. 761–787). It also increases firms' income (Lechner & Gudmundsson, 2014, pp. 36-60) and sales (Welsh *et al.*, 2013, pp. 25–40), therefore, it plays grow-enhancing role for businesses (Munoz *et al*., 2015, pp. 673–694). Lumpkin and Dess (1996, pp. 135–172) define competitive aggressiveness as the tendency of enterprises to take vying actions against their rivals in market penetration or securing their positions. By having this ability, enterprises and entrepreneurs become more likely to perform better than their opponents with attacker and strong-willed strategies (Soininen *et al.*, 2012, pp. 927–944) that their competitors do not have (Zehir *et al*., 2016, pp. 372–381). An example for these strategies might be price-cutting, which can enable enterprises to gain some

competitive advantages such as receiving more income and increasing their sales more than their rivals.

With reference to the last dimension of EO, namely autonomy, Lumpkin and Dess (1996, pp. 135–172) elucidate that autonomy stems from personal or team activities being performed independently to create a new opinion or suggestion regarding business operations. In case of giving some independency to the activities of employees, executives might improve enterprises' strategy-thinking capability. Thus, they might affect methods and strategies of companies to create new values or to improve existing procedures (Zehir *et al*., 2016, pp. 372–381; Kowo *et al*, 2019, p. 215–216).

Gender differences

Although the number of women entrepreneurs has been rising in recent years, men entrepreneurs still do more activities regarding entrepreneurship (Shinnar *et al*. 2012, pp. 465–493; Goktan & Gupta, 2015, pp. 95–112; Schouten, 2019, pp. 86–87). This is because men have more masculine behaviors that make them create new ventures, perform better in leading and entrepreneurial orientation (Mueller & Conway-Data-on, 2008, pp. 3–20). Women perceive more difficulties to set a business compared to men, such as receiving less financial assistance from their families and external financing institutions (Goktan & Gupta, 2015, pp. 95–112). Moreover, Minniti and Nardone (2007, pp. 223–238) state that women are more afraid of business failures than men. Thus, they are less likely to apply entrepreneurial activities (Shinnar *et al*., 2012, pp. 465–493). Many studies also reveal the importance of masculinity in entrepreneurial orientation, because it is related with being ambitious, resolute, competitive, and confident that direct people to concentrate on their development in working life and career and make people to receive more income and success (Brescoll *et al*., 2012, pp. 354–357; De Martino & Barbato 2003, pp. 815–832). By analyzing individuals from different countries, Goktan and Gupta (2015, pp. 95–112) and Khanagha *et al*. (2017, pp. 602–603) corroborate that, compared to women, men have more EO. Ayub *et al.* (2013, pp. 82–90) also find that men perform better in the following dimensions of EO, namely, innovativeness, risk-taking, autonomy, and competitive aggressiveness, compared to females. By analyzing gender differences in the EO of entrepreneurs from various states, Lim and Envick (2012, pp. 465–482) also confirm that males are more risk-taking, more aggressive in competition, and autonomous than females.

Age differences

When people become older, they are more prone to maintain their life in stability with a regular income (Levesque & Minniti, 2006, pp. 177–194). Therefore, they might be less likely to take risks, be innovative, be proactive, autonomous and be aggressive against their competitors, compared to older individuals. By analyzing entrepreneurs, Levesque and Minniti (2011, pp. 255–284) and Lafuente and Vailland (2013, pp. 181–203) infer that younger entrepreneurs are more motivated in performing entrepreneurial activities than their older counterparts.

Educational differences

Firms that are managed by highly educated executives perform better (Berrone *et al*., 2014, pp. 477–500; Filser & Eggers, 2014, pp. 55–65) and be more successful (Mengistae, 2006, pp. 812–836) than enterprises with less educated executives. The reason for this can be their competencies to measure risks (Petrakis, 2005, pp. 233–242), be more opportunity seeking (Naude *et al*., 2008, pp. 111–124), inventiveness (Altinay & Wang , 2011, pp. 673–694) and autonomous (Van der Sluis *et al*., 2005, pp. 225–261) behaviors of more educated entrepreneurs. De Winne and Sels (2010, pp. 1863–1883) and Kato *et al.* (2015, pp. 114–128) interpret that education positively impacts innovativeness. Similarly, Zhang *et al.* (2013, pp. 623–641) and Altinay and Wang (2011, pp. 673–694) also confirm the positive relationship between education and EO.

Research methodology

The purpose of this research is to analyze and explore the differences in the EO of the executives of SMEs in the national scope regarding some characteristics of those executives. The characteristics of the respondents that study investigate are gender, age and education. To assess the five constructs of EO, namely innovativeness, risk taking, proactiveness, competitive aggressiveness and autonomy, the authors selected 12 survey questions in five-point Likert scale.

Innovativeness was evaluated by the following survey questions: inno 1 "My company has a reputation as an innovator", inno 2 "We regularly develop new products and services in my company", inno 3 "We invest a lot of money in the development of new methods and technologies." The following two survey questions were asked to the respondents to measure their

risk-taking behaviour; rit1 "My firm follows a strategy that I perceive considerably risky" and rit2 "The firm carries out risky projects to increase the performance". When it comes to proactiveness, the measurements for this construct as follows: pro1 "Our firm has often tried to initiate actions to competitors, to which competitors respond" and pro2 "We seek to exploit predicted changes in our target market ahead of our competitors." Regarding competitive aggressiveness, the researchers directed the following questions to measure this dimension: com.agg 1 "Our activities in relation to competition are often aggressive." and com.agg. 2 "We often do activities that are directed against competitors." To examine the autonomy of the respondents, the researchers included the following questions into their questionnaire surveys auto 1 "The owners of company act independently", auto 2 "The staff in my company is reasonably autonomous with the implementation of specific business operations", and auto 3 "I support the initiative of my employees in terms of identifying and implementing of business opportunities".

Regarding the development of research hypotheses, the study based on some mentioned studies in literature review section (Goktan & Gupta, 2015, pp. 95–112; Ayub *et al*., 2013, pp. 82–90; Lim & Envick, 2012, pp. 465–482; Levesque & Minniti, 2011, pp. 255–284; Lafuente & Vailland, 2013, pp. 181–203; Zhang *et al*., 2013, pp. 623–641; Altinay & Wang, 2011, pp. 673–694). Therefore, the research sets the following hypotheses:

H1: *Innovativeness (H1a), risk taking (H1b), proactiveness (H1c), competitive aggressiveness (H1d) and autonomy (H1e) will be higher for men executives than their women counterparts.*

H2: *Innovativeness (H2a), risk taking (H2b), proactiveness (H2c), competitive aggressiveness (H2d) and autonomy (H2e) will be higher for younger executives than their older counterparts.*

H3: *Innovativeness (H3a), risk taking (H3b), proactiveness (H3c), competitive aggressiveness (H3d) and autonomy (H3e) will be higher for more educated executives than their less educated counterparts.*

A non-parametric Mann-Whitney U test was performed to find the differences between EO of the executives regarding their age, education and gender. All analyses were performed by a statistical program, namely IBM SPSS Statistics. Questionnaire surveys were performed to gain the data from the respondents from both countries. Data collection processes were

performed separately in the Czech Republic and Turkey in 2015 and 2018, respectively.

The sample framework of this paper consists of SMEs. Owners, shareholders, CEOs, finance and accounting managers in SMEs were the respondents of the surveys. The researchers gained e-mail lists of active SMEs from several chambers of commerce and then sample selection for this study was performed based on those e-mail lists. Stratified random sampling method was used to choose the respondents from various regions of the Czech Republic and Turkey. SMEs were divided into various strata depending on their geographical regions and a sample was randomly selected by representing different strata. The number of included SMEs in the samples for each region was determined in proportion of the total number of SMEs located in that region. Then, the researchers sent e-mails and called these randomly selected SMEs. Eventually, 1141 Czech and 479 Turkish respondents filled the questionnaires.

Saunders *et al.* (2015) recommend that 95 percent confidence level (Z) and a 5 percent margin of error (e) are required for the sample size in management researches. Cochran (1963) includes these factors in his created formula as follows;

- n = size of the sample
- Z= confidence level at 95% (statistical tables provide 1.96 as the value for the field below the normal curve)
- p = percentage of probability of selecting a respondent (50% when population is unknown or more than 1 million)
- q = 1-p

$$n_0 = \frac{z^2 pq}{e^2} \qquad n_0 = \frac{1.96\,(0.5)(0.5)}{(0.05)^2} = 384$$

Although the required sample size in Cochran's formula is 384, the sample size for the Czech respondents is 1141, while the sample size for the Turkish respondents is 479. Therefore, the sizes of samples in this research fulfilled this requirement by having more respondents.

The sample profile regarding age, gender and education of the respondents is as follows: 75.46% (861 male, 280 female) of the Czech respondents are male, while the percentage for male Turkish respondents is 83.50 (400 male, 79 female). When it comes to age categories, 599 Czech executives (52.50% of all Czech respondents), and 284 Turkish executives (59.29% of all Turkish respondents) are less than 46 years old. On the other hand, 542 respondents in the Czech data (47.50% of total Czech respondents) and 195 Turkish respondents (40.71% of total Turkish respondents) are more than

45 years old. Regarding the educational status, 65.64% (749 respondents have less than a Bachelor's degree, 352 respondents have minimum Bachelor's degree) of Czech respondents are less educated, while this percentage for Turkish respondents is 21.71% (104 less educated respondents, 375 more educated respondents).

Results

The results from Mann-Whitney tests for gender, age and educational differences of the Czech and Turkish respondents in EO components will be presented separately to provide a clear understanding. The findings from Mann-Whitney tests for gender differences in EO are illustrated for per each country in Table 1.

When examining the mean ranks closely, it can be stated that, although differences exist in mean ranks of male and female respondents on innovativeness ($U = 119.304$, $z = -0.260$, $p > .05$), proactiveness ($U = 119.813$, $z = -0.158$, $p > .05$), competitive aggressiveness ($U = 114.093$, $z = -1.398$, $p > .05$), autonomy ($U = 112.852$, $z = -1.634$, $p > .05$), those differences are not significant. This is because all p values for these dimensions are higher than .05% significance level. Thus, it can be concluded that innovativeness, proactiveness, competitive aggressiveness and autonomy of the Czech respondents do not differ regarding their gender. In this regard, H1a, H1c, H1d and H1e hypotheses are not supported regarding the Czech executives. On the other hand, the mean ranks for risk-taking dimension ($U = 111.219$, $z = -2.007$, $p = .045$) are significantly different for male and female Czech respondents and compared to females, male Czech respondents are more risk-taking. For this reason, the only hypothesis that is supported by this research at 5% significance level regarding the Czech respondents, is H1b.

When it comes to the results for the Turkish respondents, the mean ranks of Turkish male and female respondents on innovativeness($U = 15.236$, $z = -0.505$, $p > .05$), risk taking ($U = 15.152$, $z = -0.585$, $p > .05$), proactiveness ($U = 15.548$, $z = -0.227$, $p > .05$) and autonomy ($U = 15.486$, $z = -0.282$, $p > .05$) are not statistically significant. However, the mean rank for competitiveness aggressiveness of Turkish male respondents is higher than their female counterparts and this difference is statistically significant at .05% significance level ($U = 12.915$, $z = -2.602$, $p = .009$). Thus, only H1d hypothesis that assumes Turkish males have higher competitive aggressiveness than females, is supported. However, due to having nonsignificant differences among male and female Turkish executives, H1a, H1b, H1c and H1e hypotheses are failed to support by this study.

Corresponding to the results from Mann-Whitney statistics, which show whether differences exist in EO of the respondents regarding their age or not, Table 2 is presented below. When looking at the mean ranks in depth, it can be declared that significant differences exist in proactiveness (U = 143.008, z = -3.624, p = .000) and autonomy (U = 142.210, z = -3.685, p = .000) of the Czech respondents regarding various age categories at .05 significance level. Younger Czech respondents (≤ 45 years old) are more proactive and autonomous than older Czech respondents (> 45 years old).

However, significant differences in innovativeness (U = 153.904, z = -1.530, p > .05), risk taking (U = 151.840, z = -1.946, p > .05), and competitive aggressiveness (U = 152.813, z = -1.777, p > .05) do not exist among the Czech respondents regarding their age at .05% significance level. With reference to above-mentioned results, H2c and H2d sub-hypotheses that presume the fact that Czech younger executives are more proactive and autonomous than their older counterparts are supported. When it comes to other sub-hypotheses that consider the differences in innovativeness, risk taking and competitive aggressiveness of Czech younger and older executives, this research fails to support them. This is because all p values are higher than 5% significance level.

Considering to Turkish survey participants, the only significant difference has been found in innovativeness measurement (U = 24.459, z = -2.182, p = .029). Compared to younger Turkish respondents, older Turkish respondents are more innovative. However, the findings regarding risk-taking (U = 26.434, z = -0.856, p > .05), proactiveness (U = 27.214, z = -0.324, p > .05), competitive aggressiveness (U = 27.038, z = -0.445, p > .05) and autonomy (U = 25.685, z = -1.363, p > .05) are not significant at .05 significance level. Thus, the perception of the Turkish respondents about those dimensions of EO do not differ regarding different age categories. Although a significant difference exists among older and younger Turkish executives, older Turkish respondents are more innovative, thus, H2a hypothesis is not supported. Moreover, this study also fails to support other sub-hypotheses of H2 (H2b,c,d,e) that supposes younger Turkish respondents have higher EO than their older counterparts.

To have a close look at the results of Mann-Whitney test for the dissimilarities among various educational status in each country separately, Table 3 is presented. When examining the findings for the Czech respondents, the research confirms the significant differences between more educated (minimum bachelor degree) and less educated (less than bachelor degree) Czech respondents in the following dimensions of EO; innovativeness (U = 131.969, z = -2.833, p = .005), proactiveness (U = 135.341, z = -2.261, p = .024), and competitive aggressiveness (U = 135.905, z = -2.141, p = .032).

The results from Table 3 corroborate that more educated Czech respondents are more innovative and proactive than their lower educated counterparts. But the Czech survey participants who are less educated have more competitive aggressiveness than their more educated counterparts. In spite of these facts, the researchers do not verify the differences between lower and more educated Czech respondents regarding their risk-taking behavior ($U = 139.883$, $z = -1.685$, $p > .05$) and autonomy ($U = 139.261$, $z = -1.453$, $p > .05$).

With respect to the results from Table 3, H3a and H3c sub-hypotheses are accepted regarding the executives of Czech SMEs. This is because these sub-hypotheses contend that more educated Czech respondents are more innovative and proactive than their less educated counterparts. Although the p value for competitive aggressiveness is significant at 5% significance level, less educated Czech executives are more aggressive in terms of competition than others. This is the reason why the researchers do not support H3d hypothesis for the Czech sample. Because of non-existence of significant differences in risk taking and autonomy of less and more educated Czech respondents, H3b and H3e hypotheses are also not supported in relation with Czech respondents.

When the findings from Mann-Whitney test for the Turkish respondents are analyzed, it can be interpreted that significant differences between various education levels exist in both dimensions of EO namely, risk taking ($U = 16.938$, $z = -2.080$, $p = .038$) and autonomy ($U = 17.018$, $z = -2.010$, $p = .044$) at .05% level of significance. The findings from these dimensions indicate that less educated Turkish respondents are more risk-taking than their more educated counterparts. On the other hand, more educated respondents behave more autonomously than their less educated counterparts.

Although significant differences in risk-taking and autonomy components of EO have been confirmed, nonexistence of significant differences among the Turkish more and less educated respondents are also confirmed by the researchers regarding innovativeness ($U = 18.511$, $z = -0.796$, $p > .05$), proactiveness ($U = 19.482$, $z = -0.015$, $p > .05$) and competitive aggressiveness ($U = 19.277$, $z = -0.181$, $p > .05$). Therefore, this study does not support H3a,c,d hypotheses. But Turkish less educated executives are more risk-taking than their counterparts that have minimum bachelor's degree. This result results in this study not supporting H3b sub-hypothesis, which assumes that more educated Turkish executives are more risk-taking than their less educated counterparts. On the other hand, H3e hypothesis, which states that Turkish more educated respondents are more innovative than their less educated counterparts, is supported.

Discussion

The results of this study in relation to gender and EO of SMEs' executives indicate that compared to Czech male executives, Czech female executives are less risk-taking. Regarding the Turkish respondents, the only significant difference between genders can be seen in competitive aggressiveness, and Turkish women executives are less aggressive in the competition compared to their men counterparts. Thus, these differences in both the Czech and the Turkish sample are compatible with the findings of Mueller and Conway-Data-on (2008, pp. 3–20), Goktan and Gupta (2015, pp. 95–112) and Lim and Envick (2012, pp. 465–482), which indicate that men have higher EO than women.

On the other hand, this research does not find any significant differences between Czech male and female respondents in innovativeness, proactiveness, competitive aggressiveness and autonomy. Nonexistence of differences between genders of the Turkish respondents in innovativeness, risk taking, proactiveness and autonomy is also verified in this research. Therefore, these results object to findings of Mueller and Conway-Data-on (2008, pp. 3–20), Goktan and Gupta (2015, pp. 95–112) and Lim and Envick (2012, pp. 465–482). However, some studies (Esnard-Flavius, 2010, pp. 17–32; Jelenc, *et al*., 2016, pp. 3–16) bear out similarities of males and females regarding their EO and reveal that gender does not influence EO. In this context, the results of this study regarding similarities in EO of men and women are compatible with the findings of Esnard-Flavius (2010, pp. 17–32) and Jelenc *et al*. (2016, pp. 3–16).

The reason for the similarities between male and female Czech and Turkish executives can stem from their educational status. According to Carter *et al.* (2007, pp. 427–444), high educational status decreases the differences between genders. Moreover, Diaz-Garcia and Jimenez-Moreno (2010, pp. 261–283) reveal that education motivates entrepreneurial propensities of women. Around 38.57% Czech female executives have minimum Bachelor's degree, while this percentage for Turkish women respondents is 83.55%. Having a great amount of female highly educated respondents in the data could have diminished the differences between genders in terms of innovativeness, proactiveness and autonomy, and this fact might be the reason why this research does not find any differences in these indicators.

Corresponding to age and EO, older Czech executives are less proactive and autonomous than their younger Czech counterparts. These results back the findings of Levesque and Minniti (2011, pp. 255–284) and Lafuente and Vailland (2013, pp. 181–203) regarding proactiveness and autonomy.

Conversely, Turkish younger respondents are less innovative than their older Turkish counterparts. This fact makes this study to contradict with the results of Levesque and Minniti (2011, pp. 255–284) and Lafuente and Vailland (2013, pp. 181–203). However, Bonte *et al.* (2007, pp. 1–28) and Boyer and Blazy (2014, pp. 669–683) find positive relationship between the age of entrepreneurs and EO, and this fact matches up with the result of this study that older Turkish respondents behave more innovatively than their younger counterparts. Since older respondents have more experience, Turkish respondents in this study might have been more innovative than their younger counterparts.

In other respects, no significant differences exist between innovativeness, risk-taking and competitive aggressiveness of younger and older executives of Czech SMEs. Similarly, the EO of younger and older Turkish respondents does not differ in risk-taking, proactiveness, competitive aggressiveness and autonomy. The reason for similarities between younger and older Czech and Turkish executives can be related with experience of the respondents. Brunow and Hirte (2006, pp. 3–26) outline that entrepreneurs who are older than 45 years old are more productive, because they have enough experience to make more efficient entrepreneurial activities than younger individuals. Among Turkish older executives, 89.74% of them have more than ten years' experience, while 61.79% of Czech respondents have minimum ten years' experience. Having many years of experience could have caused executives to be more informed about market conditions and their operations, and this fact could have made them have similar tendencies to their younger counterparts in risk-taking and competitive aggressiveness.

When it comes to the differences of EO regarding educational status, less educated Czech executives have lower innovativeness and proactiveness compared to their higher educated Czech counterparts. Relating to Turkish respondents, less educated respondents have less autonomy than their higher educated Turkish counterparts. These facts are compatible with the studies by De Winne and Sels (2010, pp. 1863–1883) and Kato *et al.* (2015, pp. 114–128), which boost positive relationship between education and EO.

On the other hand, the Czech respondents that have a higher educational status perform lower in terms of competitive aggressiveness than less educated Czech executives. Furthermore, more educated Turkish executives are more risk averse than Turkish respondents, who have less than a Bachelor's degree. Moreover, this research does not find any differences in risk-taking and autonomy behaviors of more and less educated Czech respondents, while no significant differences exist in innovativeness, proactiveness

and competitive aggressiveness of Turkish higher and lower educated respondents. For these reasons, this study questions the results of Kato *et al.* (2015, pp. 114–128) and Zhang *et al.* (2013, pp. 623–641), which champion positive impacts of education on entrepreneurial orientation.

However, Mamman (2014, pp. 1–11) and Oosterbeek *et al.* (2010, pp. 442–454) profess that education does not influence entrepreneurial attitudes, thus the results of this study regarding lack of differences in EO among individuals of various educational status support the findings of both of those studies. The reason why less educated respondents perform better in some dimensions of EO and why similarities exist in EO with reference to different educational statuses might be explained by the locations of SMEs.

According to Santos *et al.* (2012, pp. 1382–1395), businesses that perform their activities in regions where citizens have higher earnings have higher EO than other firms operating in low income regions. GDP in current prices is lower in Zlínský, Vysočina, Olomoucký, Pardubický, Královehradecký, Karlovy Vary and Liberecký (Czech Statistical Office, 2017). Although, the respondents in these regions have higher educational statuses, due to operating in these regions lower educated respondents in higher income regions of Czech Republic could have behaved more aggressively in competition, be risk-taking and autonomous, to perform better or similarly to their older counterparts, to close the gap between various educational statuses.

When it comes to regional differences in Turkey, SMEs that perform their activities in the eastern regions of Turkey face competitive rivals such as international firms that create difficulties for them to survive (Gunerergin *et al*., 2012, pp. 244–251). Furthermore, more terrorist incidents happen in the eastern regions (Celebioglu & Dall'erba, 2010, pp. 379–400). For these reasons, although higher educated executives manage their firms in the eastern regions, due to having their disadvantages, less educated executives in other regions of Turkey might have had similar or more propensities in innovativeness, risk-taking, proactiveness and competitive aggressiveness.

Conclusions

The owners, shareholders, managers, CEOs– namely , executives in general, are important players in management of firms, and their innovativeness, risk-taking, proactiveness, competitive aggressiveness and autonomy are important indicators for the success, performance, profit and survival of

SMEs that they work for. Therefore, investigating the EO of executives in national contexts regarding their gender, age and education that have never been considered by other studies might constitute a value added in literature on entrepreneurship. Accordingly, the objective of this study is to discover dissimilarities in the EO of executives of SMEs in relation to their characteristics, namely, gender, age and educational status in national extent. With this selected purpose, this research analyzes 1620 owners, shareholders, managers and CEOs that have been working for Czech and Turkish SMEs. To find the differences between selected characteristics, Mann-Whitney test was applied by the authors.

The results indicate that Czech female executives are more risk averse than their Czech male counterparts. Regarding the Turkish respondents, male executives behave more aggressively in competition than Turkish female executives. The reason of these dissimilarities in the EO of men and women executives might be related to masculine behaviors of men respondents. Moreover, perception of more obstacles and fear of failure in their business operations might be another reason why females perform lower in those dimensions of EO than males. On the other hand, innovativeness, proactiveness and autonomy of men and women executives do not differ. The existence of many highly educated female executives in SMEs might be the reason why no significant differences confirmed in those dimensions of EO.

With respect to the differences in the EO of younger and older executives, younger Czech executives perform better in proactiveness and autonomy than their older Czech counterparts. The motivation of younger executives to live their life in better conditions might be the reason for this fact, while older executives usually prefer a more stable life with regular income. On the other hand, Turkish older executives behave more innovatively in their business operations than their younger counterparts, due to having more experience. Regarding similarities among older and younger executives, risk-taking and competitive aggressiveness behaviors do not differ. The reason of similarities in these dimensions might stem from the experience of older executives that enable them to close the gap with the EO of younger respondents.

Considering the dissimilarities in the EO of less and more educated executives, more educated Czech respondents have higher innovativeness and proactiveness than older Czechs. Furthermore, Turkish more educated executives behave more autonomously than their lower educated Turkish counterparts. The reason why older executives perform better in these dimensions of EO might be related to their competencies, such as more opportunity seeking behavior. On the other hand, less educated Czech execu-

tives are more aggressive in competition than more educated Czech respondents. Regarding Turkish executives, less educated respondents take more risks than their more educated Turkish counterparts. Dissimilarities are in existence in terms of risk-taking and autonomy of Czech more and less educated executives, while innovativeness, proactiveness and competitive aggressiveness of Turkish more and less educated executives do not differ. The reasons why less educated respondents perform better in some dimensions of EO and why more and less educated executives have similar entrepreneurial attitudes in some extents might pertain to regional differences in the location of enterprises that executives have been managing.

To reduce the differences between the EO of men and women executives, countries should follow moderate polities to ease market entrance and increase entrepreneurial abilities of females. This is because countries that have strict rules or regulations for entrepreneurship decrease the motivation of women entrepreneurs. Moreover, gender inequality in entrepreneurship should be decreased by government implementations to encourage women executives to perform more innovatively, be more risk-taking, aggressive in competition, proactive and autonomous. Negative perceptions of women executives in their business operations might also be changed by providing more financing opportunities for them. By doing so, policy makers and other institutions can reduce the fear of failures of women entrepreneurs and executives and increase their performance to manage their firms successfully.

The dissimilarities in the EO of older and younger executives can also be minimized by taking efficient actions. Motivation of older executives and opportunity seeking behaviors of younger executives might be increased by entrepreneurship education. In this context, universities and other institutions can take more responsibilities to open courses related with entrepreneurship, and those courses might be funded by the governments. All those above-mentioned implementations can increase the EO of executives of SMEs and thus profitability, growth and success of SMEs. These facts also make countries to have better economic indicators, since SMEs are the one of engines of economies.

Although this research includes some characteristics of executives, extended scope of EO and a large number of respondents from various countries, it has some limitations. Further studies can investigate the EO of both various characteristics of SMEs and their executives together to widen the scope of their research. Also, researchers can include more executives and SMEs from different continents instead of focusing only on European countries. This fact can draw academicians and potential readers' attention from all over the world.

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Annex

Table 1. The results for differences between the respondents' gender per each country

Country	Indicator	Gender	*n*	Mean rank	*U*	*z*	*p*
Czech Republic	innov.	male	861	569.56	119.304	-0.260	0.795
		female	280	575.41			
	risktaking	male	861	581.83	111.219	-2.007	0.045
		female	280	537.71			
	proact.	male	861	570.16	119.813	-0.158	0.874
		female	280	573.60			
	com.agg.	male	861	563.51	114.093	-1.398	0.162
		female	280	594.03			
	autonomy	male	861	562.07	112.852	-1.634	0.102
		female	280	598.46			
Turkey	innov.	male	400	238.59	15.236	-0.505	0.614
		female	79	247.15			
	risktaking	male	400	241.62	15.152	-0.585	0.559
		female	79	231.79			
	proact.	male	400	239.37	15.548	-0.227	0.820
		female	79	243.19			
	com.agg.	male	400	247.21	12.915	-2.602	0.009
		female	79	203.48			
	autonomy	male	400	239.22	15.486	-0.282	0.778
		female	79	243.97			

Note: Mann-Whitney test: n is sample size, U is Mann-Whitney statistic.

Table 2. The results for differences between the respondents' age per each country

Country	Indicator	Age	*n*	Mean rank	*U*	*z*	*p*
Czech Republic	innov.	≤ 45 years old	599	585.07	153.904	-1.530	0.126
		> 45 years old	542	555.46			
	risktaking	≤ 45 years old	599	588.51	151.840	-1.946	0.052
		> 45 years old	542	551.65			
	proact.	≤ 45 years old	599	603.26	143.008	-3.624	0.000
		> 45 years old	542	535.35			
	com.agg.	≤ 45 years old	599	586.89	152.813	-1.777	0.075
		> 45 years old	542	553.44			
	autonomy	≤ 45 years old	599	604.59	142.210	-3.685	0.000
		> 45 years old	542	533.88			

Table 2. Continued

Country	Indicator	Age	*n*	Mean rank	*U*	*z*	*p*
Turkey	innov.	≤ 45 years old	284	228.62	24.459	-2.182	0.029
		> 45 years old	195	256.57			
	risktaking	≤ 45 years old	284	235.58	26.434	-0.856	0.392
		> 45 years old	195	246.44			
	proact.	≤ 45 years old	284	238.32	27.214	-0.324	0.746
		> 45 years old	195	242.44			
	com.agg.	≤ 45 years old	284	237.70	27.038	-0.445	0.657
		> 45 years old	195	243.35			
	autonomy	≤ 45 years old	284	232.94	25.685	-1.363	0.173
		> 45 years old	195	250.28			

Note: Mann-Whitney test: n is sample size, U is Mann-Whitney statistic.

Table 3. The results for differences between the respondents' education levels per each country

Respondents	Indicator	Education	*n*	Mean rank	*U*	*z*	*p*
Czech	innov.	less than bachelor	749	551.19	131.969	-2.833	0.005
		minimum bachelor	352	608.85			
	risktaking	less than bachelor	749	580.24	139.883	-1.350	0.177
		minimum bachelor	352	553.34			
	proact.	less than bachelor	749	555.70	135.341	-2.261	0.024
		minimum bachelor	352	600.24			
	com.agg.	less than bachelor	749	585.55	135.905	-2.141	0.032
		minimum bachelor	352	543.20			
	autonomy	less than bachelor	749	581.07	139.261	-1.453	0.146
		minimum bachelor	352	551.76			
Turkish	innov	less than bachelor	104	230.49	18.511	-0.796	0.426
		minimum bachelor	375	242.64			
	risktaking	less than bachelor	104	264.63	16.938	-2.080	0.038
		minimum bachelor	375	233.17			
	proact.	less than bachelor	104	239.83	19.482	-0.015	0.988
		minimum bachelor	375	240.05			
	com.agg.	less than bachelor	104	237.85	19.277	-0.181	0.856
		minimum bachelor	375	240.60			
	autonomy	less than bachelor	104	216.13	17.018	-2.010	0.044
		minimum bachelor	375	246.62			

Note: Mann-Whitney test: n is sample size, U is Mann-Whitney statistic.