The role of executive characteristics in their evaluation of financial conditions of European SMEs

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Abstract: *The majority of SMEs (small and medium-sized enterprises) have a lower amount of financial assets and earnings compared to their larger counterparts. Therefore, their probability of encountering financial troubles is greater. However, the obstacles they face and perceive might differ depending on their executives' characteristics. In this regard, this research targets to indicate similarities or differences in the perception of financial conditions by companies' executives who are of various gender, age, and educational status. Moreover, this paper analyzes SMEs from different countries. By doing so, this research also aims to examine international differences in executives' characteristics and their perceptions of financial conditions. In line with those targets, the researchers create an internet-mediated questionnaire and direct it to the randomly selected respondents who are owners or executives of 1,156 Czech, Slovakian and Hungarian firms. The researchers also use independent samples T-test and ANOVA tests for analysis purposes. According to the results, while the educational status of executives does not play a determining role in the perceptions of financial issues in all research samples, the perceptions of financial conditions differ depending on Hungarian executives' gender. Moreover, there are significant differences in the perceptions of older and younger Czech executives regarding the financial performance of their companies. Although some studies investigate firms' or executives' resource-based view characteristics, they are limited in investigating a single relationship and a research sample (firm characteristics and bankruptcy of a country's SMEs, etc.). Since this paper sets and investigates differences in various executive-level characteristics and financial issues of different countries' SMEs, it might draw prospective readers' attentions, who might be firm executives, policymakers, financing institutions, and academicians. Moreover, comparing various samples from different countries' SMEs in analyzed relationships is another crucial value addition that this research creates when filling the literature gap.*

Keywords: *European SMEs, bankruptcy, financial risk management, financial performance, gender-age-educational status of executives.*

JEL Classification: *G41, L25, L26.*

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Introduction

According to European Commission (2003), small and medium-sized enterprises are categorized into three different groups that are based on the number of their workers. In this regard, the categories and the number of staff headcounts are as follows: microenterprises 0–9; small enterprises 10–49; medium-sized enterprises 50–249. Although SMEs have a more flexible structure to be easily adapted to changing circumstances than larger firms (Civelek et al., 2021a), the majority of SMEs face more export obstacles (Civelek & Krajčík, 2022; Ključnikov et al., 2022) and financial problems due to having a lower amount of financial resources and assets than their larger counterparts (Civelek et al., 2020; Civelek et al., 2021b). Bankruptcy, financial performance, and financial risk management are the major problems that SMEs face in their operations. However, managers should be aware of the financial conditions of their firms when managing their business and when giving financial decisions (Kuběnka et al., 2021). In this regard, depending on executives' characteristics, their awareness, competencies, and reduction of these problems might differ. This is because the characteristics of firm executives affect their financial decisions (Kaur & Singh, 2021) which also influence their financial performance (Espinosa-Méndez & Correa, 2022), as well as their perception of the firm's financial conditions.

In this regard, this paper aims to examine whether executives' perception of financial conditions differs depending on their gender, age, or education. The financial concerns that are analyzed in this research are related to bankruptcy, financial management risks, and low financial performance of SMEs. Bankruptcy mostly stems from financial issues and occurs when firms discontinue their activities (Mayr et al., 2021). The financial risk might also cause firms to face credit default issues (Kozubíková et al., 2017). The variables that this paper analyzes are based on the resource-based view. This is because financial capabilities and other executive-level characteristics are related to firms' or executives' internal factors, such as capabilities and personal features.

This paper focuses on gender, age, and educational status corresponding to the characteristics of executives. The age of firm owners is a crucial factor in the financial behavior of firms (Briozzo et al., 2016). Some studies have investigated the differences between female and male executives' financial concerns. Regarding return on assets, firms with female executives perform better in this indicator than businesses with male executives. For instance, by analyzing some SMEs in Chile, Espinosa-Méndez and Correa (2022) confirm the positive association between female executives' existence and SMEs' financial performance. Similarly, Kiefer et al. (2020) analyze USA firms and declare that firms with female executives indicate better performance than businesses with male executives. This fact can reduce female-headed firms' probability to face bankruptcy issues (Espinosa-Méndez & Correa, 2022). According to Belás et al. (2015a), women entrepreneurs perceive financial and business risk in their business environment less intensively compared to men.

Regarding the age of executives and the differences in their financial problems, there are also mixed results. Some researchers declare that young entrepreneurs' lack of human and physical capital makes them have fewer financial resources (Belás et al. 2022; Xiaohong & Yang-jie, 2013). Young entrepreneurs might also be perceived as risky due to having a company that has been operating for lack of years, with a lack of capital power and a lack of collateral. Another issue that indicates higher credit risk for young entrepreneurs is related to the higher interest rates that they face (Gavurova et al. 2020; Lazányi, 2014). Some studies also specify that young entrepreneurs have more credit risk than their older counterparts (Bottazzi et al., 2014; Dong & Men, 2014). However, there are also some opposing views. According to Kaur and Singh (2021), older executives invest a lower amount of money for R&D activities and have a lower degree of operating leverage for business activities compared to younger executives. Thus, younger executives might have more innovative posture that increases their financial performance more than older executives (Sobeková Majková, 2016). Innovation capital also has an impact on the financial performance of businesses (Radonić et al., 2021; Soltes & Gavurova, 2014). These facts can also make younger and older executives have different perspectives regarding financial issues.

Regarding the differences in educational status and the perceptions of financial issues, some studies that confirm various results exist in the literature. The cognitive ability of entrepreneurs increases with education and they also increase their capabilities by being open to new notions, changes, and information. In this regard, their financial knowledge also increases, and they can create efficient financial, innovative, and strategic models for their business operations. For this reason, they can also make effective investments. More educated entrepreneurs also have more social interactions that provide a greater size of networks with financial institutions (Xiao-hong & Yang-jie, 2013). This fact is another reason why older entrepreneurs might deal with financial obstacles more easily than their younger counterparts (Ključnikov et al., 2016). Since more educated entrepreneurs have greater human capital, their knowledge rises their chances to adopt and create business processes (Mayr et al., 2021). More educated entrepreneurs also achieve their business goal in line with sustainable development (Rauch & Rijsdijk, 2013) such as minimizing the negative environmental impacts and depletion of scarce resources (Janovska et al., 2012a) and raw materials that have rapid price increases due to the huge demands of highly populated nations (Janovska et al., 2012b).

Less educated entrepreneurs might also have a lack of awareness regarding financing opportunities. On the other hand, entrepreneurs with education, especially in business, can notice more alternative financial options (Karadag, 2017). The negative association between business failure and the level of education is also mentioned in the studies of Belás et al. (2015b), Ključnikov and Sobeková Majková (2016), and Mayr et al. (2021). Since more educated entrepreneurs might have more knowledge about application processes, they can have easier access conditions and better orientation for those financial supports. Thus, highly educated entrepreneurs might have a more positive perspective on state approaches than lower educated entrepreneurs (Ključnikov et al., 2016). As declared in this paragraph, the financial awareness, abilities, and competencies of more educated executives might enable them to have a less intensive perception of financial problems.

Although the empirical studies that are mentioned above confirm the differences in the financial perceptions of executives depending on their gender, age, and educational status, those studies are limited to just a few executive characteristics (Belás et al., 2015b; Espinosa-Méndez & Correa, 2022), a few financial issues (Pacheco et al., 2020; Rauch & Rijsdijk, 2013) or with only a market that SMEs operate (Briozzo et al., 2016; Dvorský et al., 2020). Unlike those studies, this paper focuses on owner-manager characteristics and various financial issues including bankruptcy, financial performance, and financial risk management. Besides that, this paper also analyzes three different research samples: Czech, Slovakian, and Hungarian SMEs. By doing so, this paper also intends to indicate international differences in bankruptcy-gender-age-education, financial performance-gender-age-education, and financial risk management-gender-age-education relationships (Gódány & Mura, 2021; Szeiner et al., 2022).

To achieve these goals, 1,156 SMEs from those three different European countries are examined. Although some researchers also analyze companies in the Czech Republic, Slovakia, or Hungary, they have different purposes, such as examination of demand forecasting (Kolková & Ključnikov, 2021), labor migration (Přívarová et al., 2022), corporate social responsibility (Gavurova et al., 2022; Metzker et al., 2021a; Metzker et al., 2021b), quality of business environment (Hajduova et al., 2021) and only for bankruptcy (Bič, 2022) or risk management (Belás et al., 2020; Hudakova et al., 2021). Moreover, the research questions for this research are as follows: "Do the perceptions of executives regarding bankruptcy, financial performance and financial management issues differ depending on their gender, age and education?". By having such a comprehensive perspective, this paper makes significant contributions to the literature. Examining financial issues with the owner-manager characteristics from an international scope enables this paper to fill this research gap.

The rest of the article is structured as follows: Section 1 introduces the objective of the paper and the variables that will be investigated in this research. Section 2 declares the theoretical background of the paper and develops the hypotheses. Section 3 sheds light on the methodological approaches and empirical analyses that the authors have applied. Moreover, the details regarding data collection and sample profile are presented in Section 3 too. This paper explains the results of this paper in Section 4, while the results are discussed, and suggestions are made regarding those findings in Section 5. At the end of the paper, this paper concludes the main points of this research and its limitations.

As already stated in this section, some differences exist between the perception of bankruptcy, financial performance and financial risk management concerns of men-women, older-younger, more-less educated entrepreneurs. Those differences are also substantiated by many empirical studies that are cited by this paper. However, a more detailed review needs to be done to set the research hypotheses. In line with the selected research goal, this paper will explain more details about theoretical background and the development of the hypotheses in the following section.

1. Theoretical background

1.1 Gender and evaluation of financial conditions

Regarding bankruptcy and gender, Majláth et al. (2019) analyze Serbian SMEs and summarise that female entrepreneurs' failure rate might be higher than their male counterparts since they have already experienced financial difficulties or failures in their previous operations. Similarly, Babović (2012) clarifies that the default amount of SMEs owned by men is lower than SMEs owned by women in Serbia. Furthermore, Mayr et al. (2021) posit that due to more intensively feeling cost pressures, firms run by females are more likely to go bankrupt compared to firms managed by males. Moreover, firms run by female executives are less likely to face bankruptcy issues than firms managed by males (Belot & Serve, 2018). For these reasons, female executives might more intensively perceive bankruptcy issues than their male counterparts. Due to those arguments, a research hypothesis might be set as follows:

H1: There is a significant difference between female and male executives' perceptions of bankruptcy risk.

When it comes to gender differences in the financial performance of SMEs, some studies confirm the greater financial performance of women-headed SMEs (Espinosa-Méndez & Correa, 2022; Kiefer et al., 2020; Pacheco et al., 2020) while others substantiate the opposite (Deakins et al., 2008; Sobeková Majková, 2016). Some studies declare the fact that since women executives are afraid of being declined from credit applications, they feel discouraged from credit applications (Belás et al., 2015b; Ključnikov & Sobeková Majková, 2016). The reasons for this feeling might be related to a lack of personal assets and collateral that they have (Belás et al., 2015b). Deakins et al. (2008) also state that firms with female owners face more financial barriers than male owners and they are more credit constrained. Similarly, by comparing Serbian female and male entrepreneurs Majláth et al. (2019) substantiate the fact that female entrepreneurs suffer from financial obstacles more than their male counterparts. All those factors might cause women executives to underestimate the financial performance of their businesses. For these reasons another hypothesis might be presented as follows:

H2: There is a significant difference between female and male executives' perceptions of the financial performance of their businesses.

Gender can also determine the perception of the market (Ključnikov & Sobeková Majková, 2016; Langowitz & Minniti, 2007; Lim & Envick, 2011) and financial risk (Kozubíková et al., 2017). The differences in the perception of market risk by male and female firm executives have been verified by some researchers (Ključnikov et al., 2016). As already mentioned, compared to firms managed by male executives, firms run by females face more credit access impediments (Aristei & Gallo, 2016; Belás et al., 2015b; Kozubíková et al., 2017; Xiao-hong & Yang-jie, 2013) such as paying higher interest rates (Alesina et al., 2013; Xiao-hong & Yang-jie, 2013). Similarly, Bellucci et al. (2010) analyze Italian SMEs and confirm the fact that female entrepreneurs encounter more strict loan conditions including a higher amount of collateral, credit rationing, and short-term loans. A lack of managerial competencies and experience of female executives (Kozubíková et al., 2017), feeling discouraged and having a lack of credit application (Belás et al., 2015b), a lack of leverage, earnings, and opportunities to survive (Faccio et al., 2016), being less innovative and having narrow social networks (Xiao-hong & Yang-jie, 2013) of female executives might be the reasons for women executives' lower success in financial risk management. Therefore, they can more intensively perceive financial risk management as an issue compared to male executives. In this regard, a new hypothesis might be provided as follows:

H3: There is a significant difference between female and male executives' perceptions of financial risk management.

1.2 Age and evaluation of financial conditions

Since age is related to experience and risk-taking behavior of entrepreneurs and firm executives, it influences the financing opportunities, financing decisions (Xiao-hong & Yang-jie, 2013), capital structure, debt financing (Sobeková Majková, 2016), and bankruptcy of SMEs. For instance, according to Pickernell et al. (2011) and Riding et al. (2012), younger entrepreneurs face more issues regarding credit risk since they have troubles with the credit repayments that cause bankruptcies. In this regard, Mayr et al. (2021) highlight the fact that younger entrepreneurs are more likely to go bankrupt. Thus, the probability of firms surviving increases when they have older entrepreneurs (Lussier & Halabi, 2010). Moreover, compared to younger entrepreneurs, older entrepreneurs less intensively perceive the risk of failure. A lack of experience, a lack of knowledge, and competencies of young entrepreneurs might be the reasons why they feel less secure against failure (Mayr et al., 2021; Staniewski & Awruk, 2015). Other reasons might stem from the acquisition of more knowledge regarding management, sector, and life, and also having more financial assets by older entrepreneurs. Those factors enable older entrepreneurs to reduce their risk of bankruptcy. The knowledge that older entrepreneurs have also increases their ability to make better financial calculations, financial accounting transactions, and financial planning (Mayr et al., 2021). As already mentioned, older entrepreneurs are taking fewer risks compared to their younger counterparts. This fact also makes them have more sustainability in their business development. The awareness and mindfulness of older entrepreneurs also stimulate their financial behaviors, therefore, they can apply efficient financial strategies to reduce their bankruptcy risk (Mayr et al., 2021). Another advantage that older entrepreneurs might gain is their long-term relationship with banks. By having longer relationships, they might reduce information asymmetries between banks, reduce their credit risks and become more likely to access to finance. Receiving credit also enables them to make efficient investments for their survival, thus, they can reduce their bankruptcy issues (Sobeková Majková, 2016). In line with the empirical evidence of previous studies, the researchers set another hypothesis that is presented below:

H4: There is a significant difference between older and younger executives' perceptions of bankruptcy risk.

The age of managers also determines the effectiveness of the management of firms (McCarthy et al., 2017), their success (Soomro et al., 2019), firms' return on assets (ROA), and thus, their financial performance (Chaniago, 2021). A positive relationship between owners' or managers' age and the growth of SMEs has been substantiated by some studies (Alshebami & Seraj, 2022; Briozzo et al., 2016). On the other hand, there are some opposing views that declare the negative effect of age of managers on firm performance. Those researchers explain this fact by mentioning the risk-averse behavior of older managers (Child, 1974; Espinosa-Méndez & Correa, 2022; Taylor, 1975).Therefore, the *H5* hypothesis might be created as follows:

H5: There is a significant difference between older and younger executives' perceptions of the financial performance of their businesses.

Regarding financial risk management and the age of executives, when an entrepreneur, an owner, or a manager becomes older they become more likely to resist change, and their confidence and flexibility decline when making a decision (Xiao-hong & Yang-jie, 2013). Older firm executives are also more prone to have a conservative capital structure than younger executives (Kaur & Singh, 2021). Moreover, they are afraid of losing their reputation when making investment decisions (Belot & Serve, 2018). Thus, older executives become more reluctant to take risks compared to their younger counterparts (Belot & Serve, 2018; Briozzo et al., 2016; Kaur & Singh, 2021; Sobeková Majková, 2016; Xiao-hong & Yang-jie, 2013) when making financing decisions (Xiao-hong & Yang-jie, 2013). Furthermore, Prendergast and Stole (1996) state that younger managers make more risky investments to show their competence. The reason why older executives are risk averse might stem from their economic stability and their need for career safety (Kaur & Singh, 2021). On the other hand, younger entrepreneurs more intensively perceive interest rate, credit risk (Sobeková Majková, 2016), and financial risk than their older counterparts

(Ključnikov & Sobeková Majková, 2016; Lazányi, 2014; Pickernell et al., 2011; Riding et al., 2012). Since young entrepreneurs lack time doing business, they also have a lack of experience which makes them perceive credit and interest rate risk more intensively (Sobeková Majková, 2016). On the other hand, older managers have more experience (Ključnikov et al., 2021), and the financial reports that they create have more quality (Belot & Serve, 2018). The experience of older entrepreneurs also makes them prepared for financial risk and how to manage this issue (Ključnikov & Sobeková Majková, 2016), thus, they are more effective in financial management than their younger counterparts (Angelova et al., 2018). Hence, the researchers set another hypothesis as follows:

H6: There is a significant difference between older and younger executives' perceptions of financial risk management.

1.3 Education and evaluation of financial conditions

Owners' and executives' education is also of vital importance on the perception of bankruptcy costs by SMEs, their financial strategies (Briozzo et al., 2016), and business survival (Mayr et al., 2021). This is because more educated firm executives have more knowledge, abilities, and competencies to provide solutions to business problems. Thus, the performance of firms increases when they have more educated executives. Higher education also makes executives more proactive to estimate the potential risk for their businesses. By being aware of those risks, firms with more educated executives can secure themselves against threats and can have capital strength. More educated executives can also have better calculations, accounting, and book-keeping abilities that increase their firms' probability to survive. All those abilities cause more educated executives to become more self-confident and feel more secure against bankruptcy risk. Thus, they can less intensively perceive bankruptcy risk for their business operations (Mayr et al., 2021). However, less educated entrepreneurs are more likely to face business failures, since they usually lack knowledge which reduces their ability to make better evaluations and understanding of business operations (Majláth et al., 2019). Better educated entrepreneurs also more effectively analyze the costs that their businesses might face, thus, they can have better planning abilities that develop their business success and reduce their bankruptcy problems (Mayr et al., 2021). Furthermore, more educated owners can be more professional in the management of their business and this fact might provide them with easier credit access conditions (Briozzo et al., 2016). Those arguments enable the researchers to present another hypothesis as follows:

H7: There is a significant difference between executives' perceptions of bankruptcy risk depending on their educational status.

Education also makes executives evaluate business problems and find effective solutions for them (Espinosa-Méndez & Correa, 2022; Jiang et al., 2014). Moreover, educated executives look for new opportunities and behave more proactively to have competitive advantages against their rivals (Ključnikov & Sobeková Majková, 2016). Thus, SMEs having more educated executives increases their performance (Belás & Sopková, 2016; Espinosa-Méndez & Correa, 2022; Ključnikov et al., 2016; Planinc et al., 2022), growth (Belás & Sopková, 2016; Rauch & Rijsdijk, 2013), and sustainability (Ključnikov et al., 2016; Millán et al., 2014; Rauch & Rijsdik 2013), sales, profitability (Ključnikov & Sobeková Majková, 2016), and productivity of SMEs also increase when they have more educated entrepreneurs or workers (Belás et al., 2015b; Millán et al., 2014). Since the size of production capacity is also another crucial success factor that determines firms' financial conditions (Kutac et al., 2013), firms having more educated entrepreneurs can also expand their production capacity more than other companies having less educated entrepreneurs. The financial success of enterprises also depends on the education level of firm executives (Ključnikov & Sobeková Majková, 2016; Singh & Singhal, 2015; Soomro et al. 2019). Education enables people to have more knowledge (Chaniago, 2021) that increases technical, innovative, and cognitive abilities (Espinosa-Méndez & Correa, 2022). When businesses have more educated owners and managers, their financial performance also increases (Gunasekaran et al., 2011).

H8: There is a significant difference between executives' perceptions of the financial performance of their businesses depending on their educational status.

Corresponding to the relationship between the perception of financial risk management and education, the relationship between those variables has been set by some studies (Millán et al., 2014; Sluis et al., 2008). Ključnikov and Sobeková Majková (2016) also mention the effects of the education level of entrepreneurs on the financial and credit risk of businesses. For instance, Wang (2012) emphasizes the fact that more educated entrepreneurs are able to manage financial risk more effectively than their less educated counterparts and they feel more secure against market risk. On an equal footing, Belás and Sopková (2016) also declare that executives with lower levels of education more intensively perceive the risks in the business environment compared to highly educated executives. The reasons for this fact might be related to the fact that more educated entrepreneurs use their own assets for their operations and they do not need external financing opportunities as their less educated counterparts do need (Sobeková Majková, 2016). Moreover, firm executives having MBAs behave more aggressively when making investments. They prefer applying capital expenditures to holding debt (Kaur & Singh, 2021). Due to this empirical evidence, another hypothesis might be suggested as follows:

H9: There is a significant difference between executives' perception of financial risk management depending on their educational status.

2. Research methodology

As already mentioned, this paper analyzes whether the examination of financial conditions of SMEs by firm executives differs depending on their characteristics or not. Moreover, the researchers consider indicating international differences among SMEs of various countries. The characteristics of executives are gender, age, and educational status. Gender consists of dichotomous data (male and female) while age and educational status include categorical and ranked data. Gender (male and female) and age (younger – less than 45 years old and older – 45 or more than 45 years old) are categorized under two different categories. Moreover, the educational status of firm executives is divided into three different groups as less than a bachelor, a bachelor, and more than a bachelor. Thus, the prospective differences in the financial concerns of male-female and younger-older executives are investigated by independent sample *T*-test. On the other hand, since the education level of executives has three various categories, the differences

Tab. 1: Test of normality

Country	Variables	Variance	Mean	Standard deviation	95% Confidence interval	Skewness	Kurtosis	Levene's test		
								Age	Gender	Education
Czech Republic	Bankruptcy	1.246	3.7621	1.11612	[3.6592 3.8621]	−0.735	−0.053	0.394	0.891	0.754
	Financial performance	0.977	2.2313	0.98858	[2.1401 2.3225]	0.776	0.406	0.763	0.136	0.706
	Financial risk	0.822	2.1211	0.90661	[2.0375 2.2048]	0.741	0.627	0.469	0.080	0.665
Slovakia	Bankruptcy	1.182	3.4455	1.08703	[3.3227 3.5684]	−0.381	−0.326	0.302	0.202	0.358
	Financial performance	0.952	2.4158	0.97587	[2.3055 2.5262]	0.550	−0.284	0.142	0.298	0.158
	Financial risk	0.678	2.2244	0.82337	[2.1313 2.3175]	0.422	−0.047	0.058	0.951	0.607
Hungary	Bankruptcy	1.158	3.8195	1.07625	[3.7136 3.9255]	−0.960	0.455	0.111	0.065	0.338
	Financial performance	0.710	2.1153	0.84279	[2.0323 2.1982]	0.741	0.700	0.218	0.613	0.282
	Financial risk	0.617	2.0351	0.78540	[1.9578 2.1124]	0.908	1.387	0.628	0.101	0.341

Source: own

between executives regarding their financial concerns are analyzed by ANOVA analyses. The reason why both parametric tests *T*-test and ANOVA analyzes are performed by the researchers is the fact that the data has a normal distribution. This fact is confirmed by the researchers as illustrated in Tab. 1. The researchers consider the values from Skewness, Kurtosis, and Levene's tests when analyzing the distribution of the research sample.

According to Tab. 1, the volumes from Skewness and Kurtosis indicators differ between −0.960 and 1.357. Moreover, the values from Levene's test are higher than the 5% significance level. Since the values from Skewness and Kurtosis tests are between −2 to +2 and the volumes from Levene's test are higher than the selected significance level, it can be stated that the sample has a normal distribution. Therefore, the authors have employed parametric tests for data analyzes that have been performed by SPSS statistical software.

The 5% level of significance is also selected for hypotheses testing. Thus, when the *p*-values from the results of the *T*-test and ANOVA are greater than this significance level, the researchers accept the null hypotheses. Those null hypotheses assume the non-existence of differences in the evaluation of financial conditions of SMEs depending on their executives' gender, age, and education level. Furthermore, bankruptcy, financial performance, and financial risk management concerns of SMEs are measured by the following survey questions, respectively, "There is no risk of bankruptcy for our (my) company within 5 years," and "I evaluate the financial performance of our (my) company positively," "I can adequately manage the financial risk in my (our) company." Moreover, the researchers have employed a five-point Likert scale from 1 to 5 as follows: 1 – completely disagree, 2 – disagree, 3 – neither agree nor disagree, 4 – agree, and 5 – completely agree. Hence, higher numbers indicate reduced bankruptcy, financial performance, and financial risk management concerns of SMEs.

Corresponding to the sampling method, a random sampling method has been used and the researchers have created the sample from the Cribis database. The researchers have also shared the link of an online survey to the randomly selected firms and managers or owners of 1,156 SMEs from the Czech Republic (454 SMEs), Slovakia (399 SMEs) and Hungary (303 SMEs) are the survey respondents. 729 firms in the research sample are categorized as microenterprises, while 270 businesses are small and 157 firms are classified as medium-sized enterprises depending on their number of staff headcounts. Moreover, 803 SMEs have been operating for ten or more than ten years, while 343 SMEs have been doing business for less than ten years.

Tab. 2: The results of *T*-test regarding gender and financial concerns

Country	Variable	*n*		Mean		*T*-test for equality of means		
		Male	Female	Male	Female	Degree of freedom	*T*-statistic	*P*-values (significance)
Czech Republic	Bankruptcy	323	131	2.5015	2.5344	452	−0.451	0.653
Slovakia		208	95	2.2933	2.3895	301	−1.047	0.296
Hungary		275	124	2.6327	2.4919	397	1.967	**0.043**
Czech Republic	Financial performance	323	131	2.2167	2.2672	452	−0.492	0.623
Slovakia		208	95	2.4183	2.4105	301	0.064	0.949
Hungary		275	124	2.1673	2.0000	397	2.140	**0.036**
Czech Republic	Financial risk	323	131	2.1022	2.1679	452	−0.700	0.484
Slovakia		208	95	2.2596	2.1474	301	1.101	0.272
Hungary		275	124	2.0945	1.9032	397	2.264	**0.024**

Source: own

3. Research results

Tab. 2 presents the results of the *T*-test regarding the differences between male and female executives' evaluations of the financial conditions of their firms. When considering *p*-values, they are all higher than the 5% significance level for Czech and Slovakian samples. Thus, it can be stated that the perceptions of male and female executives regarding bankruptcy, financial performance, and financial risk management do not differ in Czech and Slovakian samples. When it comes to the Hungarian sample, there are significant results in all analyzed financial issues since *p*-values for the Hungarian sample are lower than the selected significance level (bankruptcy: $p = 0.043$; financial performance: $p = 0.036$, financial risk management: $p = 0.024$). Therefore, while Czech and Slovakian male and female executives have similar perceptions, Hungarian executives differ in their perception of financial issues and this fact emphasizes international differences between Czech-Slovak and Hungarian executives.

To highlight those significant differences among male and female Hungarian firm executives, attention needs to be paid to mean volumes. As depicted in the "Mean" column, the mean volume of male executives is higher than their female counterparts for the analyzed variables. Therefore, it can be declared that female executives less positively evaluate bankruptcy, financial performance, and financial risk management issues compared to their male counterparts. For these reasons, while this paper supports *H1*, *H2*, and *H3* hypotheses for the Hungarian sample, it fails to support those hypotheses for the Czech and Slovak samples.

Corresponding to the age of executives and their perceptions of financial concerns, there is only *a* significant result in the Czech sample regarding financial performance. As illustrated in Tab. 3, the *p* volume for financial performance concerns of older and younger executives is 0.038 which is lower than the 5% level of significance. Moving on mean values, it can be stated that older Czech executives' volume is greater than their younger counterparts. For this reason, Czech younger executives less positively evaluate the financial performance of their companies than their older counterparts. This difference makes this paper support only *H5* hypotheses for the Czech sample while failing to support *H5* hypotheses for the Slovakian and Hungarian samples. On the other hand, all other *p*-values are greater than the 5% significance level. Thus, there are not any significant differences between younger and older executives' evaluations of bankruptcy and financial risk management. Hence, the researchers fail to support *H4* and *H6* hypotheses for all research

Tab. 3: The results of *T*-test regarding age and financial concerns

Country	Variable	*n*		Mean		*T*-test for equality of means		
		Younger	Older	Younger	Older	Degree of freedom	*T*-statistic	Significance
Czech Republic	Bankruptcy	175	279	3.7029	3.7993	452	−0.896	0.371
Slovakia		116	187	3.5172	3.4011	301	0.904	0.367
Hungary		193	206	3.7409	3.8932	397	−1.414	0.158
Czech Republic	Financial performance	175	279	2.1314	2.2939	452	−1.998	**0.038**
Slovakia		116	187	2.4052	2.4225	301	−0.150	0.301
Hungary		193	206	2.1554	2.0777	397	0.921	0.358
Czech Republic	Financial risk	175	279	2.1829	2.0824	452	1.149	0.251
Slovakia		116	187	2.1810	2.2513	301	−0.722	0.471
Hungary		193	206	2.0415	2.0291	397	0.156	0.876

Source: own

Tab. 4: The results of ANOVA analysis regarding educational status and financial concerns

Country	Variable	Sum of squares	Mean square	Degree of freedom	*F*-statistic	Significance
Czech Republic	Bankruptcy	0.095	0.048	2	0.038	0.963
Slovakia		2.859	1.430	2	1.212	0.299
Hungary		0.071	0.035	2	0.030	0.970
Czech Republic	Financial performance	1.161	0.580	2	0.593	0.553
Slovakia		1.507	0.753	2	0.790	0.455
Hungary		1.366	0.683	2	0.961	0.383
Czech Republic	Financial risk	0.879	0.879	2	1.069	0.302
Slovakia		1.277	1.277	2	1.889	0.170
Hungary		0.969	0.969	2	1.574	0.210

Source: own

samples and this fact is evidence to indicate international similarities in the perception of bankruptcy and financial risk management by younger and older firm executives.

To demonstrate the results depending on the educational status of executives, Tab. 4 is created by the researchers. When focusing on the *p*-values in this table, it can be seen that they are all greater than the 5% significance level. Therefore, bankruptcy, financial performance, and financial risk management concerns of SMEs do not differ depending on the educational status of executives and this fact is compatible in all of the analyzed research samples. Thus, *H7*, *H8*, and *H9* hypotheses that presume the differences based on educational backgrounds are not supported. It can be also clarified that international differences do not exist between more educated or less educated executives' perceptions of financial conditions since the results regarding educational status are compatible for Czech, Slovakian, and Hungarian samples.

4. Discussion

As confirmed by the analysis, this paper finds significant differences in the evaluation of financial conditions by female and male executives only in the Hungarian sample. This result is compatible with the studies of Belot and Serve (2018) and Mayr et al. (2021) since those researchers also confirm the differences in the bankruptcy issues of female and male executives. When it comes to the results for Czech and Slovakian samples, this research has similar results to the studies that do not confirm any differences between female and male executives' perceptions regarding financial performance (Bellucci et al., 2010), management of financial risk (Belás et al., 2015b; Kaur & Singh, 2021; Kozubíková et al., 2017; Planinc et al., 2022) and bankruptcy (Majláth et al., 2019; Staniewski & Awruk, 2015).

The reason why Czech and Slovakian male-female executives' bankruptcy, financial performance and financial risk management perceptions do not differ might be related to strength of legal rights and financial freedom in those countries, respectively. According to World Bank, Strength of Legal Right Index is an indicator of the efficiency in bankruptcy laws. Since the scores of the Czech Republic and Slovakia (their scores are 7 where the top score is 12) are higher than the score of the world average (World Bank, 2021), female entrepreneurs can also benefit from the efficiency of bankruptcy laws that make them feeling secured against bankruptcy issues as their male counterparts do. Since both of those countries are democratic, male and female entrepreneurs have equal rights when facing bankruptcy laws (Economic Intelligence, 2021) and this fact might be another argument why Czech and Slovakian male and female executives have similar perceptions regarding bankruptcy issues.

When it comes to similarities among genders and the perception of financial performance and financial risk management by Czech and Slovakian SMEs, financial freedom index might be considered. This index measures how banking sector in a country is efficient and independent (lack of government control) when providing financial supports (Heritage, 2022). Since all female and male-headed SMEs in the research data have gained credit from banks, the consideration of this index becomes more crucial to explain the similarities among genders. According to the Financial Freedom Index (Heritage, 2022), banks are mostly or moderately free in those nations and they are free to provide credits and the governments do not have 100% control over banks' operations. Thus, even SMEs headed by women entrepreneurs have some financial problems, operating in a market that has an independent banking system and free banks might provide them equal opportunities in those democratic countries to reduce their financial risk management concerns as their male counterparts do.

On the other hand, this study verifies international differences in the perceptions of financial concerns by Czech-Slovakian and Hungarian SMEs. While Czech and Slovakian female and male executives have similar perceptions, Hungarian female and male executives' perceptions of financial issues do differ. For this reason, this paper opposes the results of Ključnikov and Sobeková Majková (2016) that vindicate the differences among Czech and Slovakian executives' perceptions of financial risk management regarding their gender. According to those researchers, while Czech male and female executives' financial risk perceptions do not differ, Slovakian female executives less intensively perceive financial risk in comparison with their male counterparts. Similarly, the result of this paper regarding international differences in the gender-bankruptcy relationship is not similar to the studies of Majláth et al. (2019). This is because by analyzing Hungarian and Czech SMEs, these researchers prove similar patterns of female and male executives' bankruptcy perceptions. However, this paper does prove differences between Czech and Hungarian samples regarding the gender-bankruptcy relationship.

Compared to Hungarian female entrepreneurs, Hungarian male entrepreneurs more positively evaluate their companies' financial conditions and they are less concerned about financial problems such as bankruptcy, financial performance and risk management of their companies. The reason of this result might stem from gender inequality in Hungary. Compared to the Czech Republic and Slovakia, the score of Hungary from gender equality index is lower (Statista, 2020). According to Statista (2020), Hungary is the second worst country in Europe regarding gender equality. In line with this fact, some researchers also confirm that women pledge more collateral than men when applying bank credit in Hungary (Rahman et al., 2017). Those factors might have made Hungarian female executives in this research, to perceive financial issues more intensively than their Hungarian male counterparts.

With respect to the entrepreneurs' age and their evaluation of financial concerns, this paper has mixed results since there are differences in Czech and Slovakian-Hungarian samples. Compared to younger Czech executives, older Czech executives more positively evaluate the financial performance of their businesses. Thus, this result is consistent with the studies of Alshebami and Seraj (2022) and Briozzo et al. (2016) that posit more positive perceptions of older executives regarding the growth of their businesses. The reason why younger Czech executives have more negative perceptions regarding the financial performance of their companies might be related with the competitiveness in this market. According to Trading Economics (2022), the Czech Republic has a more competitive market than Slovakia and Hungary. By being less experienced, having lack of information about business operations and sectoral details, Czech younger executives can fall behind their rivals in the market. Thus, fierce competition in this market might make them feeling more pressure when competing with their rivals and might cause them having less revenues that indicates lower financial performance. This fact might be an argument for more negative perceptions of Czech younger executives regarding their financial performance.

On the other hand, this paper does not find any differences between financial risk management and bankruptcy perceptions of older and younger Czech, Slovakian and Hungarian SMEs. Hence, this study has similar results to the study of Planinc et al. (2022) that substantiate the non-existence of differences in financial risk management of SMEs depending on their executives' age. On the other hand, the findings of this paper regarding age and bankruptcy perceptions are not in line with the studies of Briozzo et al (2016) and Martínez-Román and Romero (2013), since those scholars verify more intensive perceptions of bankruptcy risk by older executives than their younger counterparts. The reason why this paper confirms the similarities among executives who are of various ages, might be related to the depth of credit information in those countries. The Depth of Credit Information Index measures easier access of quality credit information by credit applicants (World Bank, 2022). According to World Bank (2022), the scores of the Czech Republic, Slovakia and Hungary are quite high from this index (6 or 7 where the top score is 8). Therefore, operating in a transparent environment that enables gaining credit details might have made younger executives to overcome their bankruptcy and financial risk management concerns as their older counterparts do. This is because credit options might become more visible from the perspective of those entrepreneurs. For these reasons, older and younger executives that have been analyzed in this research might have had similar perceptions regarding bankruptcy and financial risk management.

In relation to the evaluations of financial conditions by executives of different educational statuses, this paper does not find any significant differences among the executives of the analyzed Czech, Slovak, and Hungarian samples. For this reason, this paper has compatible results with the study of Ključnikov and Sobeková Majková (2016) that also does not confirm any differences in the educational level of Czech and Slovakian executives and their financial risk perceptions. On the other hand, this paper does not have similar findings to the study of Belás and Sopková (2016) since those researchers confirm the differences in education-risk management relationship among Czech and Slovakian executives.

Moreover, some other studies also do not confirm the differences in the perception of bankruptcy (Mayr et al., 2021) financial risk (Belás et al., 2015b; Kaur & Singh, 2021), and financial risk management by executives who have various educational statuses (Planinc et al., 2022). Therefore, this paper has consistent results with them. The reason why this paper does not find any significant differences between the educational status of executives and their perceptions of financial issues might be related to the percentage of adults who are financially literate in those studies. According to the OECD (2020) and S&P Global Finlit Survey (2014) majority of adults in the Czech Republic, Slovakia and Hungary are financial literacy literate. In this regard, even some of the survey respondents who have lower degrees than bachelor's, they might have taken some courses or might have attended some financial literacy educational programs to reduce the gap between their more educated counterparts. This fact might be the reason why educational status is not a determinant factor in this research to perceive the financial concerns differently.

Furthermore, since young executives lack management experience, managerial training can be created by governments to increase the competitiveness and self-confidence of those executives. In addition, governments should create equal credit access conditions for younger executives to minimize the gap between older and younger executives' financial opportunities. Since young people have new innovative ideas, the support of governments might stimulate their creativity to make their businesses more competitive against companies headed by older executives. Governments and policymakers might also impress venture capitalists and business angels to make investments for those executives. Another policy that policymakers might implement might be the minimization of indirect gender discrimination in financing (Majláth et al., 2019). In this regard, more subsidies and incentives can be provided by policymakers to increase the power of female entrepreneurship. Except for financial support, the number of educational training and courses for female entrepreneurs needs to be increased. This is because the differences in the financing of female and male executives diminish when females become more educated (Belás et al., 2015b). Financial literacy and intellectual capital of women entrepreneurs can also be developed. This is because financial literacy, financial knowledge (Khan et al., 2022) and intellectual capital increase financial capabilities (Gross-Gołacka et al., 2021), accumulation of wealth and investment decisions making (Nguyen et al., 2019), therefore, the gap between women and men regarding financial issues can be minimized. Governments can also implement some other strategies to reduce the financial issues of SMEs. In this regard, a creation of a local currency that increases local economic and financial conditions might be an effective solution (Ključnikov et al., 2020a; Ključnikov et al., 2020b).

Conclusions

This paper aims to investigate whether those financial concerns' perceptions differ depending on executives' gender, age, and educational status. The researchers collected data from 1,156 SMEs by employing an online survey to hit this target. Those SMEs are randomly selected from the Cribis database and operate in various countries, including the Czech Republic, Slovakia, and Hungary. On the other hand, the questionnaire respondents are owners or managers of SMEs. The researchers have applied independent sample *T*-test and ANOVA analyses in the SPSS program to make data analyzes.

According to the results, male and female Czech and Slovakian executives' perceptions regarding the financial conditions of their firms do not differ. However, compared to female Hungarian executives, male Hungarian executives more positively evaluate the financial conditions of their companies. This result confirms the international differences between Hungarian and Czech-Slovakian SMEs. The similarities and differences among male-female executives might be related to the strength of legal rights, financial freedom, and gender equality in the analyzed countries.

Corresponding to the age of executives and their evaluation of financial conditions, older Czech executives more positively perceive their companies' financial performance than their younger counterparts. However, the perceptions of the financial performance of executives of various ages do not differ in Slovakian and Hungarian samples. Therefore, international differences exist between Czech and Hungarian-Slovakian samples regarding the age-financial performance relationships. On the other hand, since bankruptcy and financial risk perceptions of Czech, Slovakian and Hungarian executives do not differ depending on their age, this paper does not prove international differences in age, bankruptcy, and financial risk management perceptions. The competitiveness and the depth of credit information in the analyzed markets might be reasons for the similarities and dissimilarities among older and younger executives' perceptions.

Regarding the educational status of executives and their perceptions of the financial conditions of their companies, this research confirms the non-existence of differences in different educational statuses and in different research samples. The reason for the similarities among executives might depend on financial literacy of the adults in those studies. In this regard, policymakers can provide more financial incentives for universities or other institutions to increase financial literacy, the quality of financial education, and practical training regarding financial management. In this regard, more training and courses can be implemented by governments to stimulate financial awareness of individuals, especially females. Governments might also stimulate financing institutions to create equal credit conditions for their younger-older and male-female executive customers. Policymakers can also support venture capitalists and business angels to make more investments for young executives.

Examining various executive-level characteristics and different financial issues that SMEs encounter in various countries is the crucial role that this paper plays in academic literature. However, this paper still has some limitations. For instance, firms' financial conditions have been analyzed from executives' perspectives. Moreover, the researchers do not include any survey questions to gain information regarding the financial statements of SMEs, financial literacy of firm executives, awareness of firm executives regarding credit options and details, and the perceptions of survey respondents regarding the quality of business environment, strength of legal rights, competitiveness, financial freedom and gender equality in the markets where they operate. In addition, the executive characteristics that the researchers consider are also limited by age, gender, and educational status. For these reasons, new studies can include more characteristics of executives, and survey questions to evaluate companies' financial statements, the quality of business environment, competitiveness, financial freedom and gender equality in specific markets. Examination of firms in the stock market can also enable researchers to provide more information that is based on hard data.

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