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DO SIZE AND AGE OF SMALL AND MEDIUM-SIZED ENTERPRISES MATTER IN CORPORATE SOCIAL RESPONSIBILITY?

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ABSTRACT. The aim of this paper is to investigate whether corporate social responsibility (CSR) is affected by firm characteristics (firm age and size) or not. The study is conducted on a firm-level data collection through a questionnaire. The paper uses factor analysis to compose the CSR variable and nonparametric methods to examine the above associations in a sample size of 822 small and medium-sized enterprises (454 firms from Czech Republic and 368 firms from Slovakia). The results revealed that the CSR is not perceived similar in both countries leading to country differences. It was found no association between CSR and firm size. Hence, size do not matter in CSR for firms operating in both countries. However, firm age matters in CSR, especially for Slovak firms. Moreover, evidence showed that the older Slovak firms are less prone towards CSR. In the Czech sample, one indicator of CSR reflected positive relationship with firm age. The current study adds to the literature by offering insights on linking firm characteristics to CSR. By studying factors which influence CSR, the paper offers the possibility to better understand entrepreneurship mindset in the context of the Central Europe.

Introduction

Corporate social responsibility (hereinafter as CSR) refers to considerations to what extent does the activity of business merge with the concerns of society. In such a situation it was no surprise that Cochran and Wood (1984) firstly demonstrated some correlations between CSR and financial performance. In the 80´s the CSR was acknowledged as an important corporate duty (McGuire, Sundgren, & Schneeweis, 1988). Before the end of the millennium the prevailing trend was that in addition to profit generation, corporations should

endeavor to solve social issues whether or not the company can be associated with those problems (Gluchman, 2017). As the mood in society changed at the beginning of the millennia, so did the requirements for CSR. CSR is no longer perceived as theoretical construct from academic community. Friedman (2007) and other advocates of Adam Smith ideas keep arguing that purpose of business is to generate profit while efforts to CSR should be interpreted as theft from owners. However, rise of communication technologies (social networks in particular) at the beginning of the 21st century allowed coordination of customers dissatisfied with CSR of specific companies and their boycott pushed a lot of businesses to the point of collapse. Furthermore, the technological development is changing business models in companies as according to customer needs, increased market competition and increased need for innovation in order to create value (Păunescu & Blid, 2016; Tanţău & Khorsidi, 2016) and this phenomenon is also visible in the CSR strategies of companies. Corporate social responsibility has become a focus point for corporations comparing to previous years, when it was implemented only by few companies with increased pressure on innovation and globalization (Dima & Maassen, 2018). At the beginning of the millennium corporations are more intensively expected to exhibit ethical behavior and moral management (Lantos, 2001; Gogová, 2012; Derevianko, 2019).

Another change was brought by the onset of globalization in the first decade of the 21st century, since in that time even small corporations started to run business on international market in huge numbers. Even from these corporations began to be expected that they will take responsibility for the improvement of environmental and social conditions. Global competitiveness has been a major goal especially after the financial crisis of 2007-2008, emphasizing the need for innovations and new strategies (Dima et al., 2018) and this applied to CSR, as well, making this field a necessity in business, rather than an option for corporations. At the end of 2012 the World Forum for Ethics in Business named Volkswagen as an 'outstanding corporation' and granted it an "Ethics in Business Award" because of Volkswagen's admirable efforts 'in the fields of environmental management and corporate social responsibility (Rhodes, 2016). However, this was achieved by lying, cheating, fraud and lawlessness that is nowadays know as Volkswagen emission scandal. This scandal revealed complete failure of several countries to control giant corporations (Crouch, 2011). Subsequently, it was revealed that a large number of companies report completely biased data on their activities. These started to be termed as green washing or eco–imagination. Misleading consumers about the environmental performance or environmental benefits of a product or service is at its peak in the second decade of the 21st century (Mardoyan & Braun, 2015). Today corporations are more global and multicultural and it goes without saying that they should go beyond the minimum that is required by law (Cismas et al., 2019). Just a bad manager would nowadays publicly demonstrate greed, unethical behavior or environmental irresponsibility (Lu et al., 2019). Rhodes (2016) hopes that free press, trade unions, political pressure groups, social movement organizations and universities are the last places where should be verified. As public opinion develops CSR is nowadays understood almost as environmentalism. It is expectable that in the future it will result in boycotts on corporations whose money pipelines have something to do with undemocratic tendencies or the suppression of human rights. Profit-maximizing behavior is openly denied and CSR is understood as investment into trust of the company as a whole.

Some aspects of CSR are studied even in the context of the Czech Republic. For example, Bartok (2018) investigated the use of CSR in e-commerce as an option that can lead to competitiveness, or Khoma et al. (2018) by investigating the possible conflicts while forming CSR. Burianova and Paulik (2014) state the implementation of CSR in the banking sector leads to the opinion that the social responsibility of banks are perceived as an appropriate marketing tool and is not integrated into policies of commercial banks.

However, the current study aims is further as it explores the associations of firm characteristics with CSR in the context of two countries from Central Europe (Slovakia and Czech Republic). Thus, this research tries to offer better understanding of the latter linkages, which can be beneficial for policymakers and managers.

The next part of the paper is dedicated to the theoretical background and hypothesis development. Then, the sample, variables and methods are under methods and procedures section. Analysis and results of the research are done on the basis of the proposed linkages (firm age and firm size with CSR). A separate section is dedicated to the discussion, which is followed by the conclusion section.

1. Literature review

1.1. Theoretical background

The role of corporations in societies is on a steep rise. Likewise, people's interest in CSR is increasing (Krajnakova et al., 2018), including the most advanced forms of its manifestation in social entrepreneurship (Bilan et al., 2017) and inter-institutional collaboration (Raišienė et al., 2019). Crane et al. (2014) follow the mainstream in their theoretical reasoning and interpret the CSR as a disclosure that should be accompanied to various reports of corporations, governments, public sector organizations, non-government organizations and even international organizations. Their polemics is based intensive search for arguments that CSR is not an attempt to divert money from shareholders. They are reluctant to give a clear position whether CSR is right or wrong or even whether any CSR practices are better than others. In their defense they add that without an adequate understanding of CSR and its multitude semblance it is almost impossible to assess the SME´s specific obligations or management routines. However, Grayson and Hodges (2004) argue that CSR theory should not be perceived as discussion about annual disclosure. In their opinion, it is advisable to rename CSR to CSO (Corporate Social Opportunity) and revise all the concept. They propose to new business strategies to capitalize on those opportunities. This theory is accompanied by efforts to design new analytical techniques. Nevertheless, the analytical techniques presented by Grayson and Hodges (2017) are not specific enough and therefore do not bring to SMEs any "easy to grasp" diagnostic tools. The first dilemma emerges from the fact that the main driver to incorporate CSR into SME is fear, however CSR can increase positive social consequences essentially while has an adequate state support (Mishchuk et al., 2019).

Some authors consider that CSR are implemented to SMEs within the sustainability concept introduction (Kot, Haque, & Kozlovski, 2019) as well as the effective mechanism of its implementation can be social dialogue development (Bilan et al., 2020). Kot (2018) found that social responsibility is as much important as economic or environmental in studied SMEs practice, despite the imbalance described in the literature.

1.2. CSR for SMEs

According to theory presented by Grayson and Hodges (2017), the SME managers incorporate CSR into their decision-making rather in stimulus of avoiding troubles, not in search for challenges. Secondly, CSR is too often virtually bolt-on or artificially grafted to SME practices which results in distraction and shockwaves to business performance, rather than help. The theoretical current that is represented by Lins et al. (2017) inspiring and convincing as well. Proponents of this theory argue that the essence of CSR is trust. In their case study (the financial crisis between 2008 and 2009), Lins et al. (2017) demonstrated that

the lack of capital can be bridged to a certain extent by trust. Results revealed that corporations with high social capital, as measured by CSR intensity, had stock returns that were 4 to 7% higher than corporation with low CSR profile. Lins et al. (2017) demonstrated that SMEs with good CSR profile experienced higher profitability, growth, and sales per employee. On contrary, SMEs with low CSR profile raised more debt. This empirical evidence suggests that the trust between SMEs and its stakeholders, investors and society pays off when the overall level of trust in corporations and market in general comes to crisis. Synthesis of these findings suggest that CSR is a specific social capital that pays off in periods when there is a lack of trust on the market. From such theoretical knowledge it could be postulated that it is advantageous to invest in CSR at the first signs of the crisis. Such a theoretical basis is in good agreement with Schrempf-Stirling et al. (2016) who are theorizing about CSR which is incorporated into SME as a response historical political stimulus or as a result of decisions made by prior generations of managers. Flexible SMEs are taking up the challenge (Borocki et al., 2019). Today there is virtually no SME that has not experienced increasing demand towards CSR from its suppliers, customers or local community. For example, even the smallest SMEs working in tourism, entertainment or food processing that used to be considered uncontroversial for decades are now facing steeply increasing expectations to incorporate more CSR practices (Crane et al., 2014; Androniceanu, 2019). Introduction of these theoretical CSR requirements into common practice can be thought of as an insurance policy that pays off when investors and the overall economy face a severe crisis of confidence (Lins et al., 2017). While responsibility for profits is already decentralized in vast majority of SMEs, the responsibility for CSR is not. However, CSR and public relations in general are for the most part interlinked with ensuring stable business conditions. According to this theory, SME managers should spontaneously perceive that they have inadequacy of control over critical stakeholder variables.

According to Crane et al. (2019), responsible SME managers should instantly scan the business horizon for events and trends which could even theoretically bring some CSR challenge in the future. On the other hand, it was repeatedly and independently proved that well-intentioned efforts to improve CSR can also lead to counterproductive impacts if performed by unqualified personnel. The reason for similar collapse may be the low qualification of managers at SME level which is especially common in developing countries (Jamali & Karam, 2018). This theoretical postulate is indirectly confirmed by Grayson and Hodges (2017), who reminds that typical response to this challenge is to segment the CSR issues as they impinge on particular SME business operation and suggest changes in CSR policies accordingly.

Based on the above discussion, it can be seen that CSR concept and practices are common even for the SMEs' segment. Besides the above evidences, there are several other studies focused on the determinants and consequences of CSR for SMEs. Hence, Coppa and Sriramesh (2013) investigated the motivations of SMEs to engage in CSR by using mixed methods: quantitative and qualitative. Another study investigated the effects of CSR and relational improvements on competitive performance for 481 Spanish SMEs (Madueño, Jorge, Conesa, & Martínez-Martínez, 2016). This research revealed the mediating role of relational improvements on the relationship between CSR and competitive performance. Almost similarly, Martinez-Conesa et al.'s (2017) paper witnesses on the importance of CSR for both innovation and firm performance for 550 Spanish SMEs. CSR in the context of SME is studied even for German case. Hence, Johnson (2015) provided some evidences on the connection between awareness and implementation of environmental and social practices in SMEs. Recently, an interesting paper integrated in the same analysis a sample 26% firms with less than 100 employees, 68% firms 100 – 500 employees and 6% of them with more than 500 workers from Pakistan (Ali, Danish, & Asrar-ul-Haq, 2020). So, part of the analysis were

SMEs and large companies. The above discussion witness on the role of CSR for the SME's context.

1.3. Linking firm size and firm age to CSR

While investigated different aspects of CSR, scholars have included into their analysis firm characteristics as well. According to a study, size matters in organizing CSR (Baumann-Pauly, Wickert, Spence, & Scherer, 2013). Hence, small enterprises have some characteristics in the organizational perspective which that are good for encouraging the internal implementation of CSR, whereas large enterprises have some characteristics that are favorable for external communication about CSR. In this line, Wickert et al. (2016) argue that large firms tend to communicate CSR but do less to implement it in the core of business functions, while small enterprises focus more on its implementation and less on its communication. This logic is supported even by other scholars (Lepoutre & Heene, 2006). Thus, there is a clear difference between small and large firms in implementing CSR. The direct effect of size on implementing CSR in the business is positive. Hence, as the size of the firm increases, the higher is the impact on CSR (Brammer & Millington, 2006; Waluyo, 2017). However, Youn et al. (2015) reported a negative association between them. In addition, Udayasankar (2008) suggest for an U-shape of the relationship between firm size and CSR participation, which may argue why Galbreath (2010) found no significance at all. Thus, it is not a full consensus in the literature regarding the effect of firm size on CSR. Nevertheless, based on the above discussion the following hypotheses ca be framed:

Hypothesis 1: CSR is affected by the size of enterprises.
Hypothesis 2: There is an ascending trend in CSR across the firm size categories.

In general, based even in the literature, the relationship between firm age and CSR is positive. This lead to the logic that as old a firm is, the higher are chances it implements CSR practices. This insight is supported by an empirical study conducted by Galbreath (2010). Later, this is confirmed even by other studies such as Withisuphakorn and Jiraporn (2016) and (Waluyo, 2017). Withisuphakorn and Jiraporn (2016) claim that the effect of firm age on CSR is not unifor across different categories of CSR. Considering the above discussion, two other hypotheses can be formulated as follow:

Hypothesis 3: CSR is affected by the number of years an enterprise operate in market.
Hypothesis 4: There is an ascending trend in CSR across the firm age categories.

2. Methods and procedures

2.1. Aim and data

The paper seeks to explore whether CSR is affected by firm characteristics (firm age and size) or not. This empirical research was conducted from September 2019 to March 2020. We randomly selected a sample of respondents from the Cribis database. The respondents were addressed by e-mail. In case of the Czech Republic we addressed a total of 8,250 SMEs through an online questionnaire and obtained 454 completed questionnaires. In case of the Slovak Republic we addressed 10,100 SMEs and obtained questionnaires from 368 companies. The rate of return of questionnaires was 5.5% in the Czech Republic and 3.6% in Slovakia. The questionnaires were completed by business owners and top managers. In the Czech Republic we collected the data from 354 owners and 100 managers, and in the Slovak Republic from 285 owners and 83 top managers in the company.

In case of the Czech Republic the questionnaires were obtained from 290 micro, 107 small and 57 medium-sized enterprises. Time of operation of the company in the business

environment: 27 SMEs have been doing business up to 3 years, 28 have been doing business for 3-5 years, 64 have been doing business for 6 to 10 years, and 335 have been doing business for more than 10 years. Field of doing business: 133 SMEs are engaged in services, 91 in trade, 79 in manufacturing, 63 in construction, 11 in tourism, 11 in agriculture, 10 in transportation and 56 in other areas of doing business. In case of the Slovak Republic the questionnaires were obtained from 216 micro enterprises, 106 small enterprises and 46 medium enterprises. Time of operation of the company in the business environment: 23 SMEs have been doing business up to 3 years, 30 have been doing business for 3 to 5 years, 52 have been doing business for 6 to 10 years, and 263 have been doing business for more than 10 years. Field of doing business: 107 SMEs are engaged in services, 76 in trade, 70 in manufacturing, 41 in construction, 15 in tourism, 8 in agriculture, 10 in transport and 41 in other areas of doing business.

Table 1. Sample profile

		CZ		SR		Total	
		n	%	*n*	%	*n*	%
Legal status	Solo trader	135	29.70%	59	16.00%	194	23.60%
	Limited liability	266	58.60%	266	72.30%	532	64.70%
	Joint-stock company	34	7.50%	21	5.70%	55	6.70%
	Other	19	4.20%	22	6.00%	41	5.00%
Firm age	Less than 3 years	27	5.90%	23	6.30%	50	6.10%
	3 – 5 years	28	6.20%	30	8.20%	58	7.10%
	5 – 10 years	64	14.10%	52	14.10%	116	14.10%
	More than 10 years	335	73.80%	263	71.50%	598	72.70%
Firm size	Micro	290	63.90%	216	58.70%	506	61.60%
	Small	107	23.60%	106	28.80%	213	25.90%
	Medium	57	12.60%	46	12.50%	103	12.50%
Sector	Manufacturing	79	17.40%	70	19.00%	149	18.10%
	Retailing	91	20.00%	76	20.70%	167	20.30%
	Construction	63	13.90%	41	11.10%	104	12.70%
	Transportation	10	2.20%	10	2.70%	20	2.40%
	Agriculture	11	2.40%	8	2.20%	19	2.30%
	Tourism	11	2.40%	15	4.10%	26	3.20%
	Services	133	29.30%	107	29.10%	240	29.20%
	Other	56	12.30%	41	11.10%	97	11.80%

The sample profile is presented in *Table 1*, which is breakdown in two the countries. Respondents for the Czech Republic composed 55.23% (= 454/822) of the final sample and the rest of them were from Slovakia (44.77% = 368/822). In both countries it was almost the same pattern of the distributions of the SMEs in terms of legal status, firm age, firm size and sector. Regarding legal status of the firms, the majority were limited liability companies (64.7%), followed by solo traders (23.6%). Firms that operate in the market for more than 10 years were 72.7% of the sample, while those between three to then years were 14.1%. Three in five firms were micro firms (with no more than 10 employees), one in four firms was a small firm (10 to 50 employees) and the rest were medium firms (50 to 249 employees). Firms operating in the service sector composed the highest share of the sample (29.2%), followed by retailing (20.3%) and manufacturing (18.1%).

2.2. Variable measurement and method

CSR was measured by using four statements, which are: I know the concept of CSR and assert it in the business (csr1); Implementation of CSR enables our company to gain a competitive advantage in the market and higher customer loyalty (csr2); CSR enables our company to gain reputation and new business opportunities (csr3); CSR enables our company to attract satisfied, loyal and motivated employees (csr4). Respondents had to answer depending on their level of agreement (1 = Strongly agree; 5 = Strongly disagree).

Since this article seeks to explore whether firm characteristics (firm age and size) affect CSR or not, a one-way between-subjects analysis of variance (ANOVA) can be employed. But, the assumptions of ANOVA were not satisfied, which leads to the employment of the Kruskal-Wallis test (Gravetter & Wallnau, 2017). One of the assumptions deals with the fact that the variable should be normally distributed. All four items of CSR were not normally distributed (see *Table 2*). The latter test offers the opportunity to compare the scores a continuous variable for three or more groups. First, the scores are transformed into ranks, second, the mean rank of each group is compared (Gravetter & Wallnau, 2017).

Table 2. Descriptive statistics and test of normality for the CSR's indicators

Indicator	CZ		SR		Total		TN
	Mean	SD	Mean	SD	Mean	SD	
csr1	2.73	1.21	2.39	1.03	2.58	1.15	Not normality
csr2	3.13	1.19	2.72	1.04	2.95	1.14	Not normality
csr3	3.05	1.22	2.62	0.99	2.86	1.14	Not normality
csr4	3.05	1.17	2.64	0.97	2.87	1.10	Not normality

Note: CZ, Czech Republic; SR, Slovakia. SD, standard deviation. TN, test of normality: Kolmogorov-Smirnov and Shapiro-Wilk.

The comparison of the categories of firm size and firm size, offer a meaningful order of medians. Thus, it makes sense to sort the levels of firm age or size form the lowest to the highest level. To test for trends in firm size and age categories, the Jonckheere-Terpstra test was performed. When the sample size is large, this statistic is normally distributed, leading to the fact that *Z* score can be calculated and interpreted. A negative *Z* score means a trend of descending medians (Field, 2009).

3. Analysis and results

As it was shown in *Table 2,* the mean of the CSR's items differ somehow between the two countries. To test for this, Mann-Whitney test was run and its results are reported in *Table 3*. The test reveal that the perception of SMEs in CSR statistically differed between the Czech Republic and Slovakia. Hence, in the four statements of the CSR, Czech SMEs scored higher than their Slovak counterparts: (csr1: $U = 71490.5$, $z = -3.704$, $p < 0.001$; csr2: $U = 68114$, $z = -4.755$, $p < 0.001$; csr3: $U = 68016.5$, $z = -4.793$, $p < 0.001$; csr4: $U = 67377.5$, $z = -5.001$, $p < 0.001$). The mean ranks were higher for Czech Republic than Slovakia. This means that Slovak SMEs are more socially responsible than the Czech ones.

Table 3. Differences between countries

	Mean rank		Mann-Whitney		
	CZ ($n = 454$)	SR ($n = 368$)	U	Z	p
csr1	438.03	378.77	71490.5	-3.704	0.000
csr2	445.47	369.59	68114	-4.755	0.000
csr3	445.68	369.33	68016.5	-4.793	0.000
csr4	447.09	367.59	67377.5	-5.001	0.000

Note: CZ, Czech Republic; SR, Slovakia.

The identified differences between the two countries lead to the fact that the analysis should be done separately for each state. As mentioned before, four indicators were designed to capture CSR. To compose one variable, factor analysis (principal component analysis) was run (Fabrigar & Wegener, 2011). In both samples (Czech and Slovak) emerged one single factor, which explained 73.28% (Czech sample) and 67.32% (Slovak sample) of the variance. The Kaiser-Meyer-Olkin value was greater than the threshold of 0.70 and Barlett's test of sphericity was significant (Hair, Black, Babin, & Anderson, 2010). The latter statistics support the appropriateness of factor analysis. The component matrixes are summarised in *Table 4*. All factor loadings were well in excess of Stevens (2015) benchmark of 0.40, indicating constructs convergent validity. Furthermore, Cronbach's alphas of the creations were above 0.80, showing satisfied reliability. Additional tests were performed to investigate whether the composed variables were normally distributed or not. The test revealed that the composed variable in both samples was not distributed normally, indicating the implication of nonparametric methods to explore the associations.

Table 4. Factor analysis – component matrix

	CZ			SR		
	Loading	CM	CA if deleted	Loading	CM	CA if deleted
csr1	0.666	0.443	0.920	0.743	0.552	0.834
csr2	0.902	0.813	0.810	0.838	0.702	0.782
csr3	0.930	0.865	0.790	0.878	0.771	0.755
csr4	0.900	0.810	0.810	0.818	0.668	0.795
KMO	0.789			0.798		
EV	73.28%			67.32%		
CA	0.872			0.836		

Note: CZ, Czech Republic; SR, Slovakia. EV, Explained variance; CM, communalities, CA, Cronbach's alpha; KMO, Kaiser-Meyer-Olkin Measure of Sampling Adequacy.

Additional tests were performed to investigate whether the composed variables were normally distributed or not. The test revealed that the composed variable in both samples was not distributed normally, indicating the implication of nonparametric test, such as KruskalWallis and Jonckheere-Terpstra tests, to investigate the nexus between CSR and firm characteristics.

3.1. Firm size and CSR

It was expected a positive association between CSR and firm size, indicating that larger firms show more social responsibility than smaller ones. In this study, this can be investigated by employing the Kruskal-Wallis test. Its results are shown in *Table 5* for the Czech and Slovak samples. In the Czech case, none of the indicators resulted to be significant

different across firm size levels, while in the Slovak case, one indicator was statistically significant, $H(2, n = 368) = 6.235$, $p < 0.05$. So, Slovak small-sized firms scored significantly lower that the two other sizes in this indicator "CSR enables our company to attract satisfied, loyal and motivated employees" (csr4). Taking all together, the evidence fail to support H1.

To explore whether is a descending trend across the firm size levels in CSR or not, Jonckheere-Terpstra test was employed (see *Table 5*). It was found a statistical significance descending trend in the data for the composed variable ($z = -1.792$, $p < 0.10$) and csr3 ($z = -1.808$, $p < 0.10$) in the cases of Czech sample, whereas in Slovak case only indicator "Implementation of CSR enables our company to gain a competitive advantage in the market and higher customer loyalty" (csr2) showed a significant descending trend in firm size categories, $z = -2.031$, $p < 0.05$. Hence, Czech medium-sized firms scored lower in CSR than the other two categories, indicating that they are more socially responsible. In case of Slovak firms, the latter finding can be said only for the second indicator of CSR. Thus, H2 is partly supported.

Table 5. CSR and firm size for both samples

Sample	Item	Mean rank (firm size)			Kruskal Wallis		Jonckheere-Terpstra	
		Micro	Small	Medium	$\chi^2(2)$	p	Z	p
CZ	CSR	235.3	219.2	203.6	3.358	0.187	-1.792	0.073
	csr1	230.3	221.8	224.1	0.402	0.818	-0.566	0.571
	csr2	233.7	220.6	208.8	2.263	0.322	-1.473	0.141
	csr3	235.2	218.7	205.1	3.369	0.186	-1.808	0.071
	csr4	234.2	219.0	209.5	2.457	0.293	-1.545	0.122
SR	CSR	192.0	169.5	184.1	3.216	0.200	-1.375	0.169
	csr1	189.3	172.3	190.2	2.139	0.343	-0.804	0.421
	csr2	193.8	171.4	171.1	4.414	0.110	-2.031	0.042
	csr3	188.6	180.0	175.8	0.910	0.634	-0.949	0.342
	csr4	192.8	164.0	192.6	6.235	0.044	-1.455	0.146

Note: CZ, Czech Republic; SR, Slovakia. CSR is the composite variable while csr1 – 4 refer to the individual items.

3.2. Firm age and CSR

The association between CSR and firm age is tested with Kruskal Wallis test. Its results are presented in *Table 6* for both samples. In the Czech Republic, only one indicator was statistically significant, csr1: $H(3, n = 454) = 12.368$, $p < 0.01$. As it can be seen, for this indicator, there was fluctuation of the mean ranks from 214.43 (less than three years) to 291.98 (three to five years). The low levels manifested from the older firms indicate that they are more social responsible. In contrast to the Czech Republic, Slovak firms demonstrated four significant associations, including the composite variable, $H(3, n = 368) = 16.125$, $p < 0.01$. Surprisingly, the indicator that was significant in case of Czech sample, it is not for Slovakia, $H(3, n = 368) = 1.323$, $p > 0.10$. Considering these results, H3 is fully supported for Slovak sample, while for the Czech sample is partly accepted.

To investigate for possible ascending or descending trend across the firm age categories in CSR, Jonckheere-Terpstra test was used (see *Table 6*). The test revealed that, in the Czech sample, only one indicator manifested a statistical significance descending trend as the firm age increases ($z = -2.528$, $p < 0.05$), while in the case of Slovakia, four significant ascending trends were observed, including the composite variable, $z = 2.860$, $p < 0.01$. The significant ascending trends were found in csr2 ($z = 2.570$, $p < 0.05$), csr3 ($z = 2.626$, $p < 0.01$), and csr4 ($z = 2.363$, $p < 0.05$). Czech older firms (older than ten years) scored lower in

csr1 than younger ones (three to five and five to five to ten older firms), signaling that older firms are more socially responsible. Contrary to the Czech sample, as the firm age of Slovak firms increases, less social responsible they were. Taking all together, H4 is supported for Slovak sample, while for the Czech sample is partly supported.

Table 6. CSR and firm age for both countries

Sample	Item	Mean rank (firm age)				Kruskal Wallis		Jonckheere-Terpstra	
		< 3 years	3-5 years	5-10 years	> 10 years	$\chi^2(3)$	p	Z	p
CZ	CSR	177.26	250.39	231.16	228.94	4.929	0.177	0.596	0.551
	csr1	214.43	291.98	254.55	218.00	12.368	0.006	-2.528	0.011
	csr2	184.17	217.39	227.17	231.90	3.768	0.288	1.439	0.150
	csr3	190.02	233.66	228.63	229.79	2.551	0.466	0.807	0.420
	csr4	183.98	237.14	218.84	231.86	4.073	0.254	1.343	0.179
SR	CSR	130.61	130.55	196.96	192.90	16.125	0.001	2.860	0.004
	csr1	181.24	164.57	187.33	186.50	1.323	0.724	0.685	0.493
	csr2	133.39	141.10	196.38	191.57	13.408	0.004	2.570	0.010
	csr3	132.85	145.27	192.64	191.88	12.471	0.006	2.626	0.009
	csr4	136.50	140.82	198.97	190.82	13.128	0.004	2.363	0.018

Note: CZ, Czech Republic; SR, Slovakia. CSR is the composite variable, while csr1 – 4 refer to the individual items.

4. Discussion

The present paper has shown insights regarding the associations between corporate social responsibility and firm size and firm age. The data demonstrated that CSR do significantly links to firm characteristics. However, these should be discussed, as not all cases revealed significant association. In the following paragraphs there are discussed the main results of this research.

To apply rigor methodological procedures, first, the CSR's indicators were tested whether they are normally distributed or not. The violation of this assumption lead to the use of nonparametric methods. Then, the CSR's indicators were used to measure the CSR composite variable using factor analysis. The emerged factor and indicators were investigated for possible linkages with firm characteristics by performing Kruskal Wallis test. To follow up with the analysis, Jonckheere-Terpstra test was run in order to explore for trends in the CSR composite variable and indicators across the firm size and age categories.

Firstly, even thought it was expected that the Czech and Slovak firms to behave similarly towards CSR, the evidence showed the opposite. Firms operating in Slovakia are more social responsible than those in the Czech Republic. This finding is in line with prior studies which identified some differences between the two countries in terms of business environment (Çera et al., 2019; Khan et al., 2019; Koisova et al., 2018), or having substantial interest in entrepreneurship (Çera et al., 2018; Dvorský et al., 2019).

Secondly, based on Kruskal Wallis test, firm size does not matter in CSR, as the data showed no substantial evidence to support the associations. However, in the case of Slovakia, the fourth indicator of CSR, which is formulated as "CSR enables our company to attract satisfied, loyal and motivated employees", was perceived statistically different across the firm size categories. Moreover, the applied test for investigating any trend in the CSR across the firm size levels found significant descending trend in the composite variable of CSR for the Czech sample. This finding indicates that as the firm size increases, more likely they apply behave towards the CSR approach, which goes in line with prior studies (Baumann-Pauly et al., 2013; Brammer & Millington, 2006; Waluyo, 2017). This contradicts somehow the results

of Kruskal Wallis test, which found no association between CSR and firm size, which is supported by Galbreath's (2010) finding. Nevertheless, if a regression analysis was run, a significance influence of firm size on CSR would be obtained, as the trend in the data was significant. The latter inconsistency may require additional further research to explore the real reasons and to clarify this ambiguity.

Thirdly, this study found that firm age does matter for CSR, especially for Slovak firms. Firms operating in the Czech Republic differs in one indicator of CSR, which is "I know the concept of CSR and assert it in the business". Hence, substantial evidence was found to support the positive link between firm age and being social responsible: as Czech firms gets older, they are more prone towards social responsibility. The data provided more clear results regarding the association between CSR and firm are in the Slovak sample. The composite variable of CSR and three out of four its indicators were statistically important regarding their relationship with firm age. Thus, between firm age categories there are significant differences in CSR for firms operating in Slovakia. In addition, CSR shows an ascending trend across the firm age levels, indicating that the older firms are less prone towards CSR. The finding from Slovak sample contradicts the results of prior studies (Muttakin, Khan, & Subramaniam, 2015; Prabowo et al., 2017; Withisuphakorn & Jiraporn, 2016).

Conclusion

Keeping in mind that firms should operate in an environment where they care for society, scholars and managers have particular interest in better understanding the way how to implement best practices of CSR and how it influences business activity. The aim of this paper was to investigate the linkages between firm characteristics and CSR in SME. As firm characteristics were selected firm size (measured by the number of employees) and firm age (measured by the number of years operating in the market). Therefore, the paper scope was to explore whether firm size and firm age matter for CSR or not.

The study found that firms operating in the Czech Republic and Slovakia do not behave similarly towards CSR. There were found significant differences between them. This insight means that CSR should be studied including the contextual where business activity takes place. Thus, economic, social and cultural norms, technological and institutional factors can contribute in explaining the variation in CSR (Çera et al., 2019; Chowdhury, Audretsch, & Belitski, 2019). Institutions and deep rooted social norms may drive firms behave towards CSR. Hence, further research is encouraged in this regard.

Regarding the association between firm size and CSR, findings do not support any significant influence, contradicting previous studies (Baumann-Pauly et al., 2013; Brammer & Millington, 2006) but are in line with Galbreath's(2010) results. This indicate that CSR is perceived similarly among enterprises regardless their size. The results of Jonckheere-Terpstra test may offer a sound base for a possible positive linkage between firm size and CSR. Further research is recommended to investigate in details the latter association by employing parametric methods.

When it comes to the effect of firm age on CSR, findings support the association between them. Therefore, it can be said that the number of years a firm operates in market does matter for CSR. This is clearer for the Slovak enterprises than Czech ones. However, there is an interesting finding that older Slovak firms manifest lower CSR as compared to younger counterparts, while for Czech firms it is the opposite.

References

Androniceanu, A. (2019). Social responsibility, an essential strategic option for a sustainable development in the field of bio-economy. *Amfiteatru Economic*, *21*(52), 347-364.

Ali, H. Y., Danish, R. Q., & Asrar-ul-Haq, M. (2020). How corporate social responsibility boosts firm financial performance: The mediating role of corporate image and customer satisfaction. *Corporate Social Responsibility and Environmental Management*, *27*(1), 166–177. https://doi.org/10.1002/csr.1781

Bartok, O. (2018). The Use of CSR in E-Commerce as a Way to Compete. *Journal of Competitiveness*, *10*(4), 5–20. https://doi.org/10.7441/joc.2018.04.01

Baumann-Pauly, D., Wickert, C., Spence, L. J., & Scherer, A. G. (2013). Organizing Corporate Social Responsibility in Small and Large Firms: Size Matters. *Journal of Business Ethics*, *115*(4), 693–705. https://doi.org/10.1007/s10551-013-1827-7

Bilan Y., Mishchuk H., Pylypchuk R. (2017). Towards sustainable economic development via social entrepreneurship. *Journal of Security & Sustainability Issues*, 6(4), 691-702. http://doi.org/10.9770/jssi.2017.6.4(13)

Bilan, S., Mishchuk, H., Samoliuk, N. & Ostasz, G. (2020). Effectiveness of Social Dialogue in the System of Sustainable Economic Development Factors. Paper presented at the Proceedings of the 34th International Business Information Management Association Conference, IBIMA 2020: Vision 2025: Education Excellence and Management of Innovations through Sustainable Economic Competitive Advantage, 13303-13313.

Brammer, S., & Millington, A. (2006). Firm size, organizational visibility and corporate philanthropy: an empirical analysis. *Business Ethics: A European Review*, *15*(1), 6–18. https://doi.org/10.1111/j.1467-8608.2006.00424.x

Çera, G., Belas, J., Rozsa, Z., & Cepel, M. (2019). Linking firm characteristics to perceived important social factors for entrepreneurial activity. *Economics & Sociology*, *12*(4), 101–115. https://doi.org/10.14254/2071-789X.2019/12-4/6

Çera, G., Breckova, P., Çera, E., & Rozsa, Z. (2019). The Effect of Business Enabling Policies, Tax Treatment, Corruption and Political Connections on Business Climate. *Acta Polytechnica Hungarica*, *16*(4), 113–132. https://doi.org/10.12700/APH.16.4.2019.4.6

Çera, G., Cepel, M., Zakutna, S., & Rozsa, Z. (2018). Gender differences in perception of the university education quality as applied to entrepreneurial intention. *Journal of International Studies*, *11*(3), 147–160. https://doi.org/10.14254/2071-8330.2018/11-3/13

Chowdhury, F., Audretsch, D. B., & Belitski, M. (2019). Institutions and Entrepreneurship Quality. *Entrepreneurship Theory and Practice*, *43*(1), 51–81. https://doi.org/10.1177/1042258718780431

Cochran, P. L., & Wood, R. A. (1984). Corporate Social Responsibility and Financial Performance. *Academy of Management Journal*, *27*(1), 42–56. https://doi.org/10.2307/255956

Coppa, M., & Sriramesh, K. (2013). Corporate social responsibility among SMEs in Italy. *Public Relations Review*, *39*(1), 30–39. https://doi.org/10.1016/j.pubrev.2012.09.009

Crane, A., Matten, D., & Spence, L. J. (2014). *Corporate social responsibility : readings and cases in a global context*. Routledge.

Crouch, C. (2011). *The strange non-death of neoliberalism*. Polity Press.

Dvorský, J., Petráková, Z., Çera, G., & Folvarčna, A. (2019). Important factors for the entrepreneurship in Central Europe. *Innovative Marketing*, *15*(2), 71–83. https://doi.org/10.21511/im.15(2).2019.06

Fabrigar, L. R., & Wegener, D. T. (2011). *Exploratory Factor Analysis*. New York, NY: Oxford University Press.

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). London: SAGE.

Friedman, M. (2007). The Social Responsibility of Business Is to Increase Its Profits. In *Corporate Ethics and Corporate Governance* (pp. 173–178). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-540-70818-6_14

Galbreath, J. (2010). Drivers of Corporate Social Responsibility: the Role of Formal Strategic Planning and Firm Culture. *British Journal of Management*, *21*, 511–525. https://doi.org/10.1111/j.1467-8551.2009.00633.x

Gravetter, F. J., & Wallnau, L. B. (2017). *Statistics for the behavioral sciences* (10th ed.). CENGAGE Learning.

Grayson, D., & Hodges, A. (2004). *Corporate social opportunity! 7 steps to make corporate social responsibility work for your business*. Greenleaf.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th Editio). Harlow: Pearson Education Limited.

Jamali, D., & Karam, C. (2018). Corporate Social Responsibility in Developing Countries as an Emerging Field of Study. *International Journal of Management Reviews*, *20*(1), 32–61. https://doi.org/10.1111/ijmr.12112

Johnson, M. P. (2015). Sustainability Management and Small and Medium-Sized Enterprises: Managers' Awareness and Implementation of Innovative Tools. *Corporate Social Responsibility and Environmental Management*, *22*(5), 271–285. https://doi.org/10.1002/csr.1343

Khan, A. K., Çera, G., & Netek, V. (2019). Perception of the Selected Business Environment Aspects by Service Firms. *Journal of Tourism and Services*, *10*(19), 111–127. https://doi.org/10.29036/jots.v10i19.115

Khoma, I., Moroz, L., & Horyslavets, P. (2018). Diagnostics of Conflicts within the Business Social Responsibility Forming System. *Journal of Competitiveness*, *10*(3), 16–33. https://doi.org/10.7441/joc.2018.03.02

Koisova, E., Masarova, J., & Habanik, J. (2018). Regional differences in the labour market in Slovakia and the Czech Republic. *Journal of Competitiveness*, *10*(2), 104–117. https://doi.org/10.7441/joc.2018.02.07

Kot, S., ul Haque, A., & Kozlovski, E. (2019). Strategic SCM's mediating effect on the sustainable operations: Multinational perspective. *Organizacija*, 52(3), 219-235.

Lantos, G. P. (2001). The boundaries of strategic corporate social responsibility. *Journal of Consumer Marketing*, *18*(7), 595–632. https://doi.org/10.1108/07363760110410281

Lepoutre, J., & Heene, A. (2006). Investigating the impact of firm size on small business social responsibility: A critical review. *Journal of Business Ethics*, *67*(3), 257–273. https://doi.org/10.1007/s10551-006-9183-5

Lins, K. V., Servaes, H., & Tamayo, A. (2017). Social Capital, Trust, and Firm Performance: The Value of Corporate Social Responsibility during the Financial Crisis. *The Journal of Finance*, *72*(4), 1785–1824. https://doi.org/10.1111/jofi.12505

Madueño, J. H., Jorge, M. L., Conesa, I. M., & Martínez-Martínez, D. (2016). Relationship between corporate social responsibility and competitive performance in Spanish SMEs: Empirical evidence from a stakeholders' perspective. *BRQ Business Research Quarterly*, *19*(1), 55–72. https://doi.org/10.1016/j.brq.2015.06.002

Mardoyan, A., & Braun, P. (2015). Analysis of Czech Subsidies for Solid Biofuels. *International Journal of Green Energy*, *12*(4), 405–408. https://doi.org/10.1080/15435075.2013.841163

Martinez-Conesa, I., Soto-Acosta, P., & Palacios-Manzano, M. (2017). Corporate social responsibility and its effect on innovation and firm performance: An empirical research in SMEs. *Journal of Cleaner Production*, *142*, 2374–2383. https://doi.org/10.1016/j.jclepro.2016.11.038

McGuire, J. B., Sundgren, A., & Schneeweis, T. (1988). Corporate social responsibility and firm financial performance. *Academy of Management Journal*, *31*(4), 854–872. https://doi.org/10.2307/256342

Mishchuk, H., Samoliuk, N., & Bilan, Y. (2019). Measuring social justice in the light of effectiveness of public distributive policy. *Administration & Public Management Review*, (32). 63-76. DOI: 10.24818/amp/2019.32-05.

Muttakin, M. B., Khan, A., & Subramaniam, N. (2015). Firm characteristics, board diversity and corporate social responsibility: Evidence from Bangladesh. *Pacific Accounting Review*, *27*(3), 353–372. https://doi.org/10.1108/PAR-01-2013-0007

Prabowo, M. A., Jamin, M., Saputro, D. J., Mufraini, A., & Agustia, D. (2017). Female executive officers and corporate social responsibility disclosure: evidence from the banking industry in an emerging market. *J. for Global Business Advancement*, *10*(6), 631. https://doi.org/10.1504/JGBA.2017.091944

Raišienė, A. G., Bilan, S., Smalskys, V., & Gečienė, J. (2019). Emerging changes in attitudes to inter-institutional collaboration: the case of organizations providing social services in communities. *Administratie si Management Public*, (33), 34-56.

Rhodes, C. (2016). Democratic Business Ethics: Volkswagen's Emissions Scandal and the Disruption of Corporate Sovereignty. *Organization Studies*, *37*(10), 1501–1518. https://doi.org/10.1177/0170840616641984

Schrempf-Stirling, J., Palazzo, G., & Phillips, R. A. (2016, October 1). Historic corporate social responsibility. *Academy of Management Review*. Academy of Management. https://doi.org/10.5465/amr.2014.0137

Stevens, J. P., & Pituch, K. A. (2015). *Applied Multivariate Statistics for the Social Sciences: Analyses with SAS and IBM's SPSS* (6th ed.). Routledge.

Udayasankar, K. (2008). Corporate Social Responsibility and Firm Size. *Journal of Business Ethics*, *83*(2), 167–175. https://doi.org/10.1007/s10551-007-9609-8

Waluyo, W. (2017). Firm Size, Firm Age, and Firm Growth on Corporate Social Responsibility in Indonesia: The Case of Real Estate Companies. *European Research Studies Journal*, *XX*, 360–369. https://doi.org/160472019

Wickert, C., Scherer, A. G., & Spence, L. J. (2016). Walking and Talking Corporate Social Responsibility: Implications of Firm Size and Organizational Cost. *Journal of Management Studies*, *53*(7), 1169–1196. https://doi.org/10.1111/joms.12209

Withisuphakorn, P., & Jiraporn, P. (2016). The effect of firm maturity on corporate social responsibility (CSR): do older firms invest more in CSR? *Applied Economics Letters*, *23*(4), 298–301. https://doi.org/10.1080/13504851.2015.1071464

Youn, H., Hua, N., & Lee, S. (2015). Does size matter? Corporate social responsibility and firm performance in the restaurant industry. *International Journal of Hospitality Management*, *51*, 127–134. https://doi.org/10.1016/j.ijhm.2015.09.008