

Strategic Tool of Human Resource Management for Operation of SMEs in the Wood-processing Industry

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The aim of this study was to identify the differences in the perception of the preferred level of corporate culture in Europe (Czech Republic and Slovak Republic), Asia (the People's Republic of China (Beijing Municipality), and the Russian Federation (Sverdlovsk region). The research methodology was based on the Organizational Culture Assessment Instrument, which is a well-known and widely used measurement tool developed by Cameron and Quinn (1999). Based on statistical verification through an analysis of variance and Tukey's honest significant difference (HSD) test, similarities in corporate cultures were seen for employees working in the Czech Republic, Slovak Republic, and People's Republic of China, and there was a demand for a clan corporate culture. In the Russian Federation, employees preferred market and hierarchy corporate cultures. Furthermore, the corporate culture within the Baby Boomer, X, and Y generations was analysed. Within generations, major inter-regional differences were not confirmed. A positive corporate culture can contribute to further strategic development of companies and successful operation in the market.

Keywords: Strategy; Wood-processing industry; SME; Europe; Asia; ANOVA; Tukey's HSD test; Human resource management; Corporate culture

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INTRODUCTION

People represent a strategic tool in the management of many companies. Their usefulness depends on their abilities, qualities, and attitudes. In an enterprise, there are employees from different age generations and for whom different features are typical. Members differ from one another not only in their behaviour, but also in their attitudes and opinions. It can be assumed that the same is true for international companies, where it is expected that different geopolitical groups have different views on human resource management (HRM).

In developed and transforming economies, small- and medium-sized enterprises (SMEs) have an irreplaceable role. They are considered to be the driving force of

economies because they make a significant contribution to increasing innovation activities, the flexible introduction of new products, as well as job creation. They are adaptable and very responsive to change. A SME remarkably influences the region in which it is located and regional development through its entrepreneurial activity. If regions have properly mapped their resources and capabilities, then they have all of the prerequisites necessary for successful development.

The regions that were analysed in this paper (Central European region (Czech Republic and Slovak Republic), Asian region (Russian Federation (Sverdlovsk region), and People's Republic of China (Beijing Municipality)), are known for a number of wood-processing enterprises that support employment and national GDP growth (Gosselin *et al.* 2017). Small and medium wood-processing enterprises play an important role in supporting the rural livelihoods in China. The Russian wood-processing industry processes one quarter of the global wood reserves. The timber industry is a significant contributor to the economy of Russia, with a worth of around 20 billion USD. The ten largest companies account for more than 70% of the total revenue (FAO 2010). In the European Union, SMEs employ 84.6% of the wood and wood products workforce for the manufacturing sector and generate 77.3% of the total value added (Eurostat 2017).

Because of ever-growing globalization, businesses need to create an effective strategy to help them succeed in a highly competitive environment (Kono *et al.* 2012; Kubasáková *et al.* 2014; Ližbetin *et al.* 2016; Vetráková *et al.* 2016; Bergman *et al.* 2017; Malá *et al.* 2017; Stachová *et al.* 2017; Yang *et al.* 2017). Therefore, in recent years, an increasing awareness by management interest groups is focused on the fact that the performance and prosperity of an enterprise largely depends on its values, beliefs, norms, rules, patterns, and rituals (Dastmalchian *et al.* 2015; Varnali 2015; Hrmo *et al.* 2016). As a whole, these attributes represent the corporate culture. Many different definitions have been suggested for organizational culture, and as such many researchers agree that it refers to a system of values, beliefs, and behaviours shared among employees (Deshpande and Webster 1989; Ravasi and Schultz 2006; Cui and Hu 2012). Organizational culture refers to the basic pattern of shared values and assumptions that govern the way employees within an organization think about and act on problems and opportunities (McShane and Von Glinow 2000). Moreover, organizational culture is described as widely shared values and assumptions that are clearly understood in an organization (Schein 1992). Additionally, organizational culture can be defined as dynamic values and is the deep aspect of an organization that shapes human behaviour (Champoux 1996). Organizational culture plays a major role in organizational goals and is closely related to many managerial areas, such as communication, the decision-making process, effectiveness, leadership, and HRM.

The research by Scott (1997), Cameron and Quinn (1999), Colyer (2000), Amis and Slack (2002), and Smith (2004) describes organizational culture as an essential predictor of organizational effectiveness. According to Zhang and Liu (2006), organizational culture plays a major role in work performance and effectiveness. Based on Sánchez-Sellero *et al.* (2017) suitable corporate culture is one of the key factors of employee satisfaction. Current research into the culture of the construction industry has revealed that the organizational culture can improve the effectiveness of contractors (Coffey 2010; Cheung *et al.* 2011; Nukic and Huemann 2016; Willar *et al.* 2016). Another strand of research has focused on the impact of organizational cultures on organizational performance (Maloney and Federle 1991; Yeung *et al.* 1991; Wilderom *et al.* 2000; Kreitner and Kinicki 2001). It has been proven that it is imperative to know the

organizational culture to develop and optimise the organizational performance and production.

Employees are considered to be an invaluable and irreplaceable capital of each company from the perspective of achieving long term goals of a successful business (Kropivšek *et al.* 2011; Machová 2014; Fejfarová and Urbancová 2016). Employees working in enterprises influence and shape the corporate culture. In the case of SMEs in the field of HRM, the main role of a manager is to work with people of different genders, education, ages, and job positions. In the context of good management, a manager needs to know what values their employees prefer. This is based on the fact that work values among generations may differ and impact the workplace by shaping beliefs, values, goals, work attitudes, world views, and attitudes toward leadership (Sessa *et al.* 2007). The Baby Boomer generation consists of people born from 1946 to 1964. These employees with sufficient work skills and experience are career oriented and are often considered workaholics. They have a hard time finding the balance between their work and private life (Curry 2015). People born between 1965 and 1980 belong to Generation X. This generation is career focused as well. They strive to evenly divide their time between work and private life (Sessa *et al.* 2007). Generation Y (1980 through 1999) employees have a number of specific career plans. They consider lifelong learning and family to be a priority. A characteristic feature of this generation is that they welcome the opportunity to work outside their home country and usually focus on their role and not the time spent doing tasks (Kubátová and Kukulková 2014). In addition to the generations mentioned, there exists the Generation of Veterans and Generation Z (Curry 2015). The Generation of Veterans was born between 1925 and 1945, and is no longer economically productive. Meanwhile, people in Generation Z (born after 2000) are not yet economically productive. Therefore, these generations were not included in this research.

Corporate culture is largely determined by national characteristics. There are many types of research dealing with inter-cultural differences (Rosen and Rizzo 1961; Kidd 2001; Watson *et al.* 2010; Presutti and Zambelli 2014; Chen *et al.* 2015). Based on a comparison of cultural differences in selected countries, it is possible to discern common elements in Russian and Chinese enterprises (Hofstede *et al.* 2010). These elements are “power distance” and “long term orientation”. Central European enterprises operate on a stable hierarchy, but this trend is much weaker than in the Russian and Chinese regions. In Russian, Czech, and Slovak enterprises (in contrast to the People’s Republic of China), there is a high effort towards “uncertainty avoidance” and “individualism”. Russian enterprises apply a stricter and more clearly defined hierarchy than the Czech and Slovak enterprises. Many Russian enterprises are led by a single autocratic authority, who makes decisions and delegates tasks to middle managers and lower level employees.

EXPERIMENTAL

The assessment of organizational culture was performed with the Organizational Culture Assessment Instrument (OCAI) developed by Cameron and Quinn (1999). This methodology was chosen because several researchers have provided evidence for adequate reliability and validity of the OCAI when measuring organizational culture, as well as its effectiveness in a variety of organizations (Cameron and Freeman 1991; Quinn and Spreitzer 1991; Cameron and Quinn 1999; Colyer 2000). Cameron and Quinn (1999) based

the OCAI on the Competing Values Framework, which has been widely used in organizational research to assess organizational culture. To find the specific extent of the four culture types, six organizational culture dimensions needed to be measured for each type that addresses employee perceptions of core cultural elements, which are Dominant Characteristics, Organizational Leadership, Management of Employees, Organizational Glue, Strategic Emphases, and Criteria for Success (Shilbury and Moore 2006; Jaeger and Adair 2013). The questionnaire included 24 items divided into four subcategories, which corresponded to clan, adhocracy, market, and hierarchy cultures. According to Belias *et al.* (2015) the clan culture refers to a friendly and “cozy” working environment, where the working force is perceived as an extended family and the superiors are perceived as mentors. The adhocracy culture is characterized by innovation and risk taking, assured by a highly creative and dynamic working environment. Organizations that adopt market culture, aim to be highly competitive, while winning is the glue that holds the employees and the organization together. The hierarchy culture is considered to be well coordinated, characterized by formal rules and policies.

An evaluation of the cultural profiles was performed using the data collected from the respondents working in the Central European and Asian regions. A total of 1004 employees working in complex wood-processing companies in the Czech Republic (CR) and Slovak Republic (SR) of the Central European region was involved in this research. A total of 942 questionnaires was collected from employees working in complex wood-processing companies in the Asian region, which included the Sverdlovsk region of the Russian Federation (RF) and the Beijing Municipality in the People’s Republic of China (PRC). The selection of respondents was allocated across all areas of regions analysed. The distribution of the questionnaires was secured in all areas of the wood-processing industry (Table 1).

Table 1. Characteristics of the Sample

Country	Baby Boomers		Generation X		Generation Y		Total	
	Absolute	Relative (%)	Absolute	Relative (%)	Absolute	Relative (%)	Absolute	Relative (%)
PRC	62	16.94	150	40.98	154	42.08	366	100.00
CR	94	18.08	286	55.00	140	26.92	520	100.00
RF	77	13.37	279	48.44	220	38.19	576	100.00
SR	87	17.98	265	54.75	132	27.27	484	100.00
Total	320	16.44	980	50.36	646	33.20	1,946	100.00

Because of the selective nature of the data collected, the differences between the selected countries in the arithmetic mean were tested by Tukey’s HSD test at an α significance level of 5%. Tukey’s HSD test is a single-step multiple comparison procedure. It was adapted for different observations of each group and assumes independence between the levels of factors, variance of consistency, and normality. The test is usually used in conjunction with an analysis of variance (ANOVA, post-hoc analysis) to find pairs of averages that are significantly different from each other. Statistics 12.0 software (Dell, Oklahoma City, USA) was used.

RESULTS AND DISCUSSION

The best-known instrument derived from the Competing Values Framework is the OCAI, which measures organizational culture according to four dimensions and is generally known to be valid and reliable (di Stefano and Scrima 2016). Based on the research by Jaeger and Adair (2013), the OCAI was found to be a useful tool to determine the culture of a profession. The OCAI included six questions (Dominant Characteristics, Organizational Leadership, Management of Employees, Organizational Glue, Strategic Emphases, and Criteria for Success). Each question had four answers that corresponded to a certain culture (A = Clan, B = Adhocracy, C = Market, and D = Hierarchy) (Belias *et al.* 2015). Table 2 presents the dominant answer for each dimension in the studied countries.

Table 2. Key Elements of the Culture Types in the Selected Countries

Dimension	PRC	CR	RF	SR
Organization is:	a personal place, and an extended and sharing family	a personal place, and an extended and sharing family	very results oriented and people are competitive	a personal place, and an extended and sharing family
	A	A	C	A
	$\bar{X} = 34.64$	$\bar{X} = 40.24$	$\bar{X} = 34.15$	$\bar{X} = 31.12$
Leadership is:	mentoring, facilitating, and nurturing	focused on coordinating and efficiency	focused on coordinating and efficiency	focused on coordinating and efficiency
	A	D	D	D
	$\bar{X} = 28.46$	$\bar{X} = 29.89$	$\bar{X} = 32.96$	$\bar{X} = 33.23$
Employee management characterized by:	individual risk-tasking, uniqueness, and innovative	teamwork, consensus, and participation	teamwork, consensus, and participation	teamwork, consensus, and participation
	B	A	A	A
	$\bar{X} = 27.50$	$\bar{X} = 42.99$	$\bar{X} = 32.69$	$\bar{X} = 45.29$
Organization held together by:	loyalty, mutual trust, and personal commitment	loyalty, mutual trust, and personal commitment	emphasis on goal accomplishment and achievement	loyalty, mutual trust, and personal commitment
	A	A	C	A
	$\bar{X} = 29.07$	$\bar{X} = 36.44$	$\bar{X} = 30.76$	$\bar{X} = 33.71$
Strategic emphases are:	openness, human development, trust, and participation	openness, human development, trust, and participation	permanency, stability, and efficiency	openness, human development, trust, and participation
	A	A	D	A
	$\bar{X} = 28.37$	$\bar{X} = 34.29$	$\bar{X} = 30.87$	$\bar{X} = 30.25$
Criteria of success are:	development of human resources	development of human resources	operational efficiency	operational efficiency
	A	A	D	D
	$\bar{X} = 26.97$	$\bar{X} = 40.33$	$\bar{X} = 31.20$	$\bar{X} = 31.39$

Sources: This research was adapted from Denison and Spreitzer (1991), Zammuto and Krakower (1991), Cameron and Quinn (2006), and Yong and Pheng (2008).

In the first step, the differences between the two regions (Central European and Asian regions) were compared. Figure 1 and Tables 3 to 6 present the results.

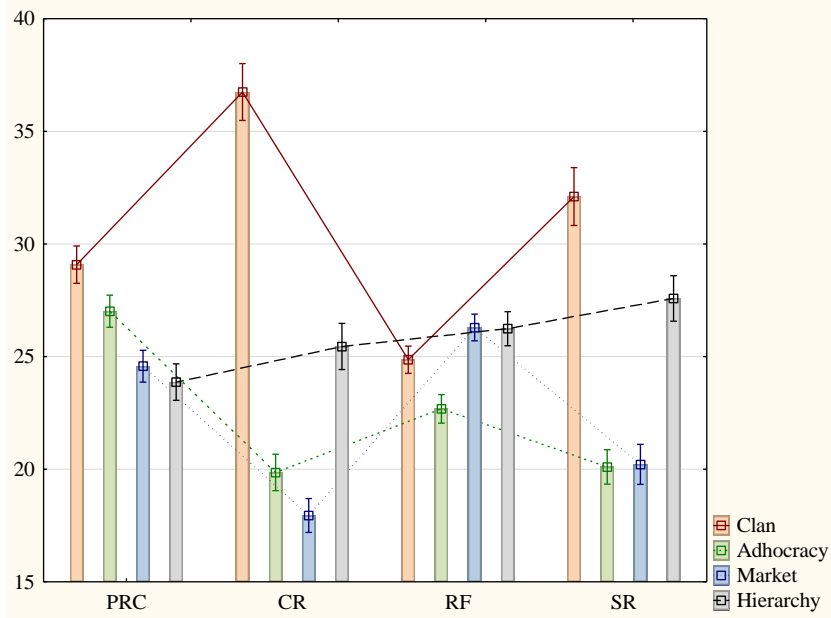


Fig. 1. Corporate culture differences in the analysed countries for all of the age categories

In the People’s Republic of China, Czech Republic, and Slovak Republic, the greatest emphasis was placed on a clan culture. In contrast, a clan culture was not the most prominent culture in the Russian Federation. The Russian respondents rated the market and hierarchy corporate cultures as having the highest emphasis (Fig. 1).

Table 3. Clan Culture – Results of Tukey’s HSD Test (P-level) of the Analysed Countries for All of the Age Groups

	PRC 29.08%	CR 36.74%	RF 24.86%	SR 32.10%
PRC		0.000	0.000	0.001
CR	0.000		0.000	0.000
RF	0.000	0.000		0.000
SR	0.001	0.000	0.000	

Note: Significant differences are bolded

For the clan culture, statistically significant differences in all of the pairs of countries were observed using Tukey’s HSD test. The views of the respondents differed for all of the countries (Table 3), although the People’s Republic of China and Russian Federation pair was similar, and so was the Czech Republic and Slovak Republic pair. Within similar pairs (People’s Republic of China and Russian Federation, and Czech Republic and Slovak Republic), there were differences of up to 5%. The difference between the Asian and European pair of countries ranged from 5% to 10%.

Table 4. Adhocracy Culture – Results of Tukey’s HSD Test (P-level) of the Analysed Countries for All of the Age Groups

	PRC 27.02%	CR 19.86%	RF 22.68%	SR 20.10%
PRC		0.000	0.000	0.000
CR	0.000		0.000	0.966
RF	0.000	0.000		0.000
SR	0.000	0.966	0.000	

Note: Significant differences are bolded

Except from the Slovak Republic and Czech Republic, a statistically significant difference among the rest of the surveyed countries was confirmed when examining the adhocracy corporate culture. This culture was most preferred in the People’s Republic of China (Table 4). The differences between the remaining countries were within 5%.

Table 5. Market Culture – Results of Tukey’s HSD Test (P-level) of the Analysed Countries for All of the Age Groups

	PRC 24.57%	CR 17.95%	RF 26.29%	SR 20.22%
PRC		0.000	0.011	0.000
CR	0.000		0.000	0.000
RF	0.011	0.000		0.000
SR	0.000	0.000	0.000	

Note: Significant differences are bolded

Despite the fact that statistically significant differences in almost all of the pairs of surveyed countries were confirmed for the market corporate culture (Table 5), the employee views on the importance of a market corporate culture were comparable in the observed regions of the People’s Republic of China and Russian Federation, as well as in the Czech Republic and Slovak Republic pair.

Table 6. Hierarchy Culture – Results of Tukey’s HSD Test (P-level) of the Analysed Countries for All of the Age Groups

	PRC 23.87%	CR 25.45%	RF 26.24%	SR 27.58%
PRC		0.111	0.003	0.000
CR	0.111		0.586	0.006
RF	0.003	0.586		0.152
SR	0.000	0.006	0.152	

Note: Significant differences are bolded

The pairs of the People’s Republic of China and Russian Federation, the People’s Republic of China and Slovak Republic, and the Czech Republic and Slovak Republic differed in their views on the importance of a hierarchical culture (Table 6). These differences were within 5%.

After analysing differences between countries, the differences in opinions of respondents for each generation were examined.

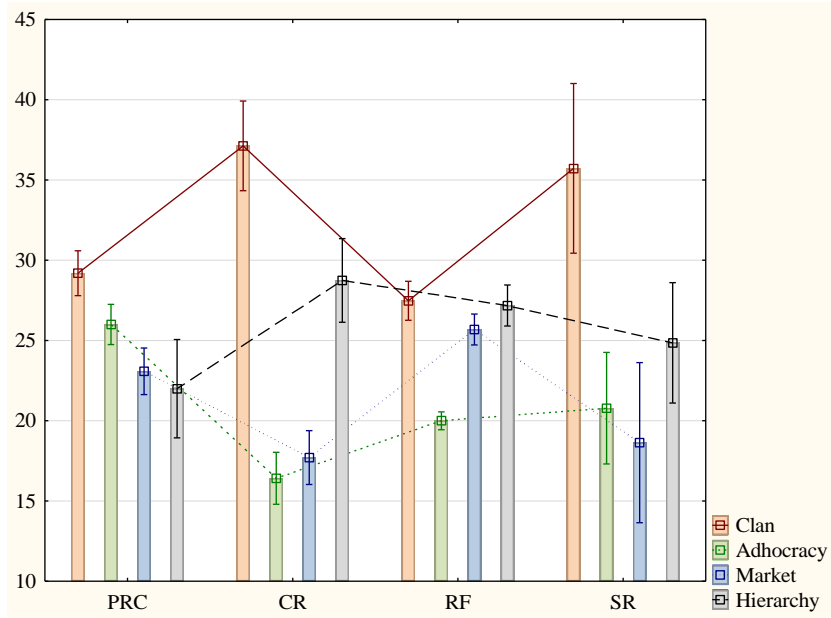


Fig. 2. Differences in the corporate culture of the analysed countries for the Baby Boomer generation

Table 7. Results of the One-way ANOVA – Baby Boomer Generation

Corporate Culture	Sum of Square	Degree of Freedom	Mean of Square	Sum of Square Error	Degree of Freedom Error	Mean of Square Error	F	P-level
Clan	4348.69	3	1,449.56	39330.70	231	170.26	8.51	0.000
Adhocracy	1519.57	3	506.52	14438.69	231	62.51	8.10	0.000
Market	2919.11	3	973.04	22244.85	231	96.30	10.10	0.000
Hierarchy	837.99	3	279.33	29666.61	231	128.43	2.18	0.092

Note: Significant differences are bolded

The results of the one-way ANOVA (Fig. 2 and Table 7) did not confirm the difference ($p = 0.092$) of opinions about a hierarchical corporate culture for the Baby Boomer generation. In other areas of corporate culture, the views of the respondents varied with the country.

Table 8. Results of the One-way ANOVA – Generation X

Corporate Culture	Sum of Square	Degree of Freedom	Mean of Square	Sum of Square Error	Degree of Freedom Error	Mean of Square Error	F	P-level
Clan	19905.09	3	6635.03	72653.98	561	129.51	51.23	0.000
Adhocracy	2595.85	3	865.28	51737.81	561	92.22	9.38	0.000
Market	9874.99	3	3291.66	38648.51	561	68.89	47.78	0.000
Hierarchy	2503.66	3	834.55	66689.86	561	118.88	7.02	0.000

Note: Significant differences are bolded

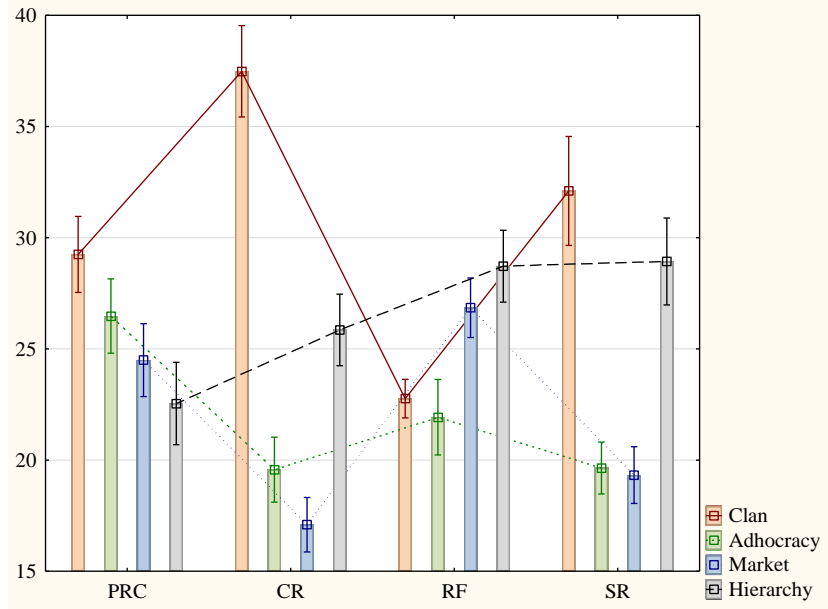


Fig. 3. Differences in the corporate culture of the analysed countries for Generation X

In a more detailed survey of Generation X, statistically significant differences ($p = 0.000$) among the countries for all of the corporate culture types (Fig. 3, Table 8) were confirmed by the results of the one-way ANOVA. The smallest difference between the countries (up to 5%) occurred for the hierarchical corporate culture.

From the results shown in Fig. 4 and Table 9 for Generation Y, statistically significant differences ($p = 0.000$) were confirmed among the countries for all of the corporate culture types. Again, the opinions on a hierarchical corporate culture differed by up to 5%.

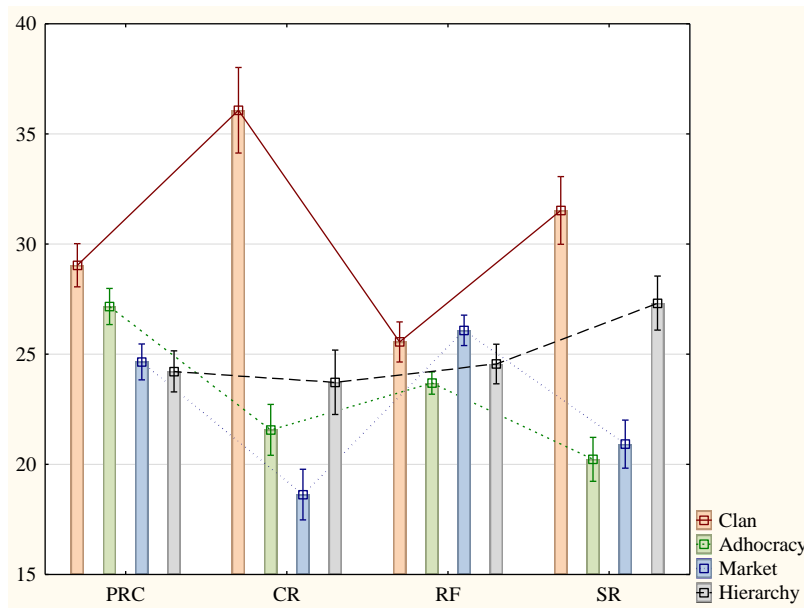


Fig. 4. Differences in the corporate culture of the analysed countries for Generation Y

Table 9. Results of the One-way ANOVA – Generation Y

Corporate Culture	Sum of Square	Degree of Freedom	Mean of Square	Sum of Square Error	Degree of Freedom Error	Mean of Square Error	F	P-level
Clan	16287.24	3	5429.08	152974.4	1144	133.72	40.60	0.000
Adhocracy	7905.62	3	2635.21	63992.2	1144	55.94	47.11	0.000
Market	9755.57	3	3251.86	73695.6	1144	64.42	50.48	0.000
Hierarchy	2205.28	3	735.09	106461.9	1144	93.06	7.90	0.000

Note: Significant differences are bolded

Diversity in corporate cultures for different generations has been studied by Curry (2015), Ahmad and Ibrahim (2015), Hoole and Bonnema (2015), Ozkan and Solmaz (2015), Parthasarathy and Ramalingam (2015), Shirish *et al.* (2015), and Duh (2016). They identified differences in the views, values, beliefs, attitudes, preferences, and goals between different generations. Work attitudes may also affect the process of adaptation and socialization of an individual, which takes place within the workplace or occupational life of a person. Work attitudes evolve and change as a person matures, obtains new work experience, and adapts to collaborators and society. The survey published by Vasyakin *et al.* (2016) presents results that are identical to the results of this research. The authors confirmed that the hierarchical corporate culture was dominant in Russian universities. Their conclusions corresponded to the results of this research. The results of Zhang and Liu (2006) were validated by this study. According to the authors cited, the clan corporate culture is dominant in the People's Republic of China. The conclusions of this study agreed with those of Kampf *et al.* (2017), who stated that Central European SMEs prefer a clan corporate culture in all of the age categories, similar to transport enterprises in Europe.

The results of the research can be influenced by major societal changes, which the Central European region (the Czech Republic and Slovak Republic) went through after 1989. This was reflected in the corporate culture and the desire of employees for a clan corporate culture. Despite the fact that centralized management dominated in the People's Republic of China (Beijing Municipality), a liberal approach by supervisors was developed. It was assumed that the results obtained from the Russian Federation were influenced by the long-term dominant management of the country, as well as by the central planning of the Russian Federation.

When analysing the age categories, personal development was preferred by the employees from the Baby Boomer generation. In the early stages of working life (under 25 years old), there exists a competition between employees (Inceoglu *et al.* 2012). Compared with the older generation, the younger generation is more flexible and energetic and has a higher education level and knowledge of several languages (Folkman 2015). The authors agreed with this statement. Furthermore, the results of this research confirmed that a clan corporate culture was preferred by the employees from the Baby Boomer generation in all of the regions analysed. This type of corporate culture represents a friendly and family-oriented workplace, where people share the same values.

The preference for a clan culture was observed for Generation X and Generation Y employees in the Central European region (the Czech Republic and Slovak Republic) and the People's Republic of China (Beijing Municipality). A market corporate culture, which is associated with higher performance, dominated in the Russian Federation (Sverdlovsk

region). In this type of corporate culture, people are competitive and goal-oriented. Enterprises are strengthened and oriented towards the primacy. Success is defined by gaining a market share, and emphasis is placed on overtaking the competition and achieving a leading position in the market.

CONCLUSIONS

1. Among the regions analysed, there were differences in the corporate culture. A great emphasis was placed on a clan culture in the Central European region (the Czech Republic and Slovak Republic) and the People's Republic of China (Beijing Municipality). The hierarchical and market corporate cultures dominated in the Russian Federation (Sverdlovsk region).
2. Clan corporate culture is the best type of corporate culture for SMEs because it is focused on the development of each person. Great attention is paid to coherence, morale, and the working environment. Success is measured in relation to the internal environment and care for the employees. Therefore, this culture is beneficial for increasing the performance and productivity of businesses. It is appropriate for SMEs to be interested in adopting (in the case of the Russian Federation) or maintaining (in the other regions analysed) a clan corporate culture.
3. People represent a strategic tool in the management of many companies. Their usefulness depends on their abilities, qualities, and attitudes. A positive corporate culture can contribute to further strategic development of a company and its successful operation in the market.

ACKNOWLEDGEMENTS

This paper was partially funded by the "Updating of anthropometric database of Slovak population" (APVV-16-0297), "Computational model of motivation" (VEGA No. 1/0024/17), "Methods and models of strategic business performance management and their comparison in companies and multinational corporations" (VEGA No. 1/0537/16), the National Science Foundation of China for Youth (No. 71503011), the Beijing Municipal Social Science Foundation (No. 16GLC041), Fundamental Research Funds for the Advantage Discipline of North China University of Technology (No. XN081), and the Science Foundation of North China University of Technology for Youth (No. XN019019).

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Article submitted: December 12, 2017; Peer review completed: February 17, 2018; Revised version received: February 19, 2018; Accepted: February 21, 2018; Published: February 22 2018.

DOI: 10.15376/biores.13.2.2759-2774