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Changing the Corporate Culture Towards the Human Resources Development

Lukáš Smerek

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Abstract

The existence of desired corporate culture is one of the prerequisites for business success. The object of this chapter is the corporate culture in Slovak enterprises and the possibilities of its change towards the raising level of human resources development. Based on the analysis of corporate culture in selected enterprises, the aim of the chapter is to propose methodology for management of change of corporate culture supporting the development of human resources in enterprises. The sociological interview identifies the predominant type of corporate culture in Slovak medium and large enterprises in years 2014 – 2016. The examination is based on the assumption that there are significant differences between preferred values of corporate culture in local and global enterprises. It also identifies the need to change the corporate culture in enterprises and their awareness of corporate culture change management towards human resources development. The results of the survey verify Slovak managers' interest on human resources development and the formation of strong corporate culture. The results are the basis for the formulation of proposals and recommendations resulting in the methodology for management of change of corporate culture supporting the development of human resources in enterprises.

Keywords: corporate culture, corporate culture change, diagnosis of corporate culture, OCAI, clan culture, adhocracy culture, market culture, hierarchy culture, human resources development, Slovak enterprises

1. Introduction

People are the basic prerequisite for the successful operation of the enterprise processes. Their professional knowledge and experience are the most important capital for the enterprise [1]. Enterprises cannot be successful in the long term without people who possess the characteristics

of entrepreneurs; also enterprises cannot be successful if individuals are entrepreneurial but the conditions within the enterprises are not established to promote entrepreneurship or even hinder the entrepreneurial actions of employees [2]. Corporate culture is considered to be one of the main determinants of people's behavior. It is present in every enterprise no matter the size, focus or location. The existence of desired corporate culture is one of the prerequisites for long-term success. A strong corporate culture is a combination of strategic perspective of management and human resources development, which result in reasonable behavior of managers and employees. Authors who study corporate culture [3–11] and many others agree that the corporate culture is a specific phenomenon and a special attention must be paid to its formation by management. Forming corporate culture is a complex and long-term process, because the thinking and behavior shaping of employees are quite inertial. The change achieved by power is usually rejected. The success in changing the corporate culture consists of consensus in five areas; compact enterprise mission, goals in the process of change, methods used to achieve the goals, methods used to measure the progress and corrective actions [12].

Most of the attempts to change the corporate culture are unsuccessful because the existing values and standards of behavior [13] hinder such effort. The implementation of desired corporate culture mainly involves a change in the work of managers for the purpose of defining corporate behavior and maintaining such routing that takes into account the current situation and includes activities affecting the development of all the components of culture [10]. The value of corporate culture is underestimated by some Slovak enterprises. As a tool, it enables enterprises to unify the various values, interests, and approaches of employees [14]. On the other hand, big multinational enterprises have come to realize that apart from the traditional quantitative or financial tools affecting enterprise competitiveness, qualitative nonfinancial factors have a substantial impact [15].

The object of this chapter is the corporate culture in Slovak enterprises and the possibilities of its change toward the raising level of the human resource development (HRD). Based on the analysis of corporate culture in selected enterprises, the aim of the chapter is to propose a methodical procedure of corporate culture change supporting the HRD in enterprises.

2. Theoretical basis of corporate culture

The concept of corporate culture in the management has been examined since the mid-80s of the twentieth century [16]. Culture is an integral part of every enterprise. It is quite difficult to learn how to benefit from it because it evolves over time. It takes a considerable part in achieving the objectives and the development of the enterprise itself.

Corporate culture is perceived through the basic values, opinions, and assumptions, which exist within an organization [14]. The corporate culture has never been precisely formulated, but it determines the behavior and actions of people and ways of their performing at work [17]. It is an intricate system of objectives, goals, aspirations, ideas, rules, beliefs, attitudes, values, norms, symbols, beliefs, customs, traditions, and material conditions of the enterprise

[18] or a set of fundamental and critical ideas, values and norms of behavior that are well-established and accepted as generally valid [19]. Corporate culture is the result of interaction between managers and other employees. It gives them the opportunity to justify their conduct in relation to the preferred values in an enterprise. It affects the way of integration in the enterprise, i.e., the way how the new employee is adapted to the business processes or how he/she looks at his/her duties development and self-improvement. The private sector and the public administration seek to recruit the right employees with the required qualifications when needed. At the same time, they seek an employee who meets the requirements of the job, the organizational culture and the group in which the employee will work [20]. It is important to support employees in accepting the same values, beliefs, and goals [21]. Corporate culture affects the implementation of the strategy in an enterprise. If the deep-seated culture supports openness and flexibility, then the strategic objectives are very likely to be achieved. On the other hand, success in enforcing strategic plans without changing the culture is very unlikely. The ways of adaptation to change that result from corporate culture are much faster than those forcibly established by enterprise management.

Many authors [3–5, 22, 23] have developed different typologies of corporate culture. We are most inclined to the typology, based on the competing values framework, because it has proven to be a helpful framework for assessing and profiling the dominant cultures of organizations because it helps individuals to identify the underlying cultural dynamics that exist in their organizations [24]. It describes four types of corporate culture—clan, adhocracy, market, and hierarchy. The competing values are flexibility/stability and internal/external orientation (**Figure 1**).



Figure 1. Types of corporate culture.

Enterprise with a clan culture is characterized by flexibility and internal orientation. A clan culture represents a friendly workplace, where people share the same values. Management is friendly to customers and employees and often creates a sense of family environment. The leaders take on the roles of teachers, advisors, and sometimes also parents. Loyalty and traditions consolidate such an organization [14]. Clan culture has high morale and its members are satisfied with the current situation in the company.

Adhocracy culture is characterized by a dynamic, entrepreneurial, and creative workplace. People stick their necks out and take risks. Effective leadership is visionary, innovative, and risk-oriented. The glue that holds the organization together is commitment to experimentation and innovation. The emphasis is on being at the leading edge of new knowledge, products, and services. Readiness for change and meeting new challenges are important. The organization's long-term emphasis is on rapid growth and on acquiring new resources [25]. Employees can easily handle different situations and react flexibly to the market needs. Changes in organizational structure are common and accepted.

Market culture is typical for a result-oriented organization, where the people are competitive and goal oriented. The leaders are ambitious competitors and expect high performances from their employees. The focus on victory integrates the enterprise. Over the long term, attention is paid to competition and the achievement of excessive goals [14]. Measuring the value of human capital, measurement, and management of its effective use is a basic idea on which enterprises should build their performance and competitiveness [26].

Hierarchy culture is internally oriented; it emphasizes centralized control and management. It is characterized as a formalized and structured place to work. Procedures and well-defined processes govern what people do. Effective leaders are good coordinators, organizers, and efficiency experts. Maintaining a smooth-running organization is important. The long-term concerns of the organization are stability, predictability, and efficiency. Formal rules and policies hold the organization together. Enterprise or institution with such a culture responds effectively and efficiently in familiar situations. On the other hand, coping with change can be a problem [24].

3. Data and methodology

Diagnosing is one of the ways that helps managers and owners to identify the current state of corporate culture, to describe its elements, to identify the causes of existing problems in the workplace and to take the necessary steps for possible change. Organizational Culture Assessment Instrument (OCAI) was used for diagnosing the types of corporate culture in the surveyed enterprises. It is based on the competing values framework (CVF), which arose from research focused on the most important indicators affecting enterprise efficiency. The output of the research was a list of 39 indicators by which to measure enterprise effectiveness [5].

In the first part of the investigation, respondents were asked to diagnose the type of corporate culture—clan, adhocracy, market, and hierarchy. Each of these cultures differs from the others in six criteria such as overall characteristics of enterprise, leadership, employee

management, corporate cohesion, strategic focus and criteria of success. Respondents, who participated in the survey, were asked to divide a total of 100 points between the options A–D according to the situation of their enterprise. Each option represents certain type of corporate culture (A, clan; B, adhocracy; C, market; D, hierarchy). Afterwards, arithmetic mean was used to identify the types of culture dominant in certain enterprises. The survey took place in years 2014–2016.

The second part of the questionnaire consisted of 18 closed questions. Their aim was to assess the level of HRD in the enterprises. They were formulated to determine what tools of HRD do enterprises use. For every answer, 0–3 points were assigned. The maximum possible score was 54. To assess the rate of human resource development in the enterprise, the scale in **Table 1** was used.

Points	HRD rate
>43	Very high
33–43	High
22–32	Medium
11–22	Low
<11	Very low

Table 1. The scale of HRD score.

Summing the values for each option A–D in all six criteria determined the type of corporate culture in the enterprise. For the needs of the summary statement, the calculation was created. The calculation determined the position of gravity's center, which showed us the type of culture whose elements are predominant in surveyed enterprise. Since OCAI divides the types of corporate culture by two dimensions (internal/external orientation and flexibility/ stability), this principle was the base for the calculation. To calculate the x -coordinate of C point (culture), we calculated the arithmetic average of the average values of the cultures with external orientation and subtracted the arithmetic average of the average values of the cultures with the internal orientation, divided by two (Eq. (1)):

$$X = \frac{(\overline{Adhocracy} + \overline{Market}) - (\overline{Clan} + \overline{Hierarchy})}{2} = \frac{(\overline{B} + \overline{C}) - (\overline{A} + \overline{D})}{2} \quad (1)$$

For the calculation of the y -coordinates of C point, we calculated the arithmetic average of the average values of flexible cultures and subtracted the arithmetic average of the average values of the stable cultures divided by two (Eq. (2)):

$$Y = \frac{(\overline{Clan} + \overline{Adhocracy}) - (\overline{Market} + \overline{Hierarchy})}{2} = \frac{(\overline{A} + \overline{B}) - (\overline{C} + \overline{D})}{2} \quad (2)$$

Location of C point in one of four quadrants determines the predominant type of corporate culture in the examined enterprise. There is an example shown in **Figure 2**.

In the second phase of the examination, we used another questionnaire to identify the need to change the corporate culture in enterprises and their awareness of corporate culture change

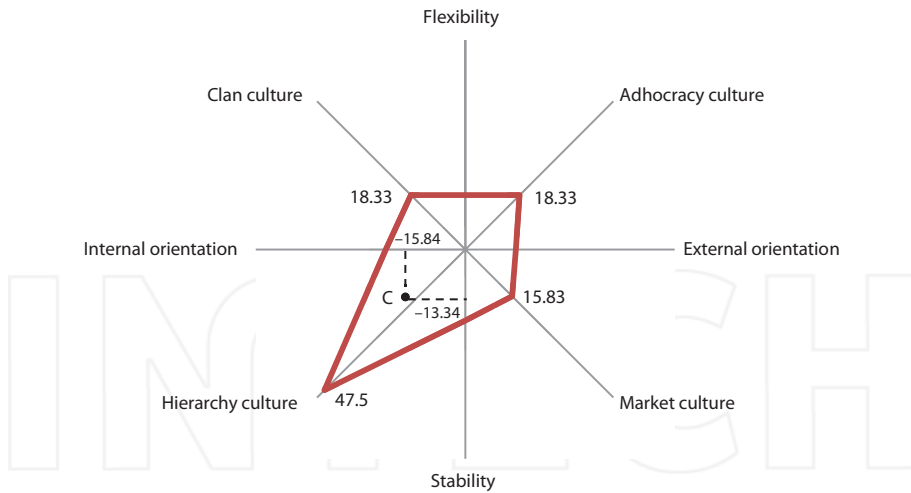


Figure 2. Example of a graphical representation of the predominant type of corporate culture.

management toward human resources development. The second questionnaire was filled in by 68 enterprises (all of them participated in the first part as well). They answered the following questions:

1. What do you think is the main focus of enterprises in HRD?
2. Is there any correlation between corporate culture and HRD?
3. Which elements of corporate culture influence HRD the most?
4. What are the other criteria for high rate of HRD?
5. What is your opinion on managing the change of corporate culture? Is it possible to prepare the environment for the adoption and change management?
6. What are the prerequisites for a successful change of corporate culture?
7. What process of changing the corporate culture would you recommend?
8. What do you think are the pitfalls of change of corporate culture?

4. Results and discussion

A total of 2500 medium-sized (50–249 employees) and large enterprises (over 249 employees) were addressed out of which 304 enterprises actively participated in the research. According to the Statistical Office of the Slovak Republic,¹ there were 4112 medium and 751 big enterprises

¹Slovstat database.

in business in years 2014–2015. The research sample covers 6.25% of the Slovak enterprises in the observed period. We have statistically verified the representativeness of the sample according to the enterprises' regional locations and their sizes at the 95% confidence level. The numbers of examined enterprises are in **Table 2**, and a map of Slovak regions can be found in Appendix (**Figure 7**).

Real and expected frequencies of the enterprises in the research sample by regional venue are in **Table 3**. According to the results ($p\text{-value} > \alpha$), we can accept the assumption that sample is representative at the 95% confidence level. Distribution of enterprises by venue in the research sample corresponds to the Statistics Office data.

The second observed factor was the size of the enterprise (**Table 4**). Once again $p\text{-value} > \alpha$ means that we can accept the assumption that sample is representative at the 95% confidence level. Distribution of enterprises by size in the research sample corresponds to the Statistics Office data.

Slovak region	Big enterprise	Medium enterprise	Total
Bratislava	15	79	94
Trnava	5	15	20
Trenčín	11	23	34
Nitra	9	24	33
Žilina	5	24	29
Banská Bystrica	6	32	38
Prešov	3	32	35
Košice	4	17	21
Total	58	246	304

Table 2. The numbers of examined enterprises.

Region	Observed N	Expected N	Residual	Test statistics	
Bratislava	94	88.2	5.8	Chi-Square	12.315*
Trnava	20	29.1	−9.1	df	7
Trenčín	34	32.9	1.1	Asymp. Sig.	0.091
Nitra	33	35.5	−2.5		
Žilina	29	36.4	−7.4		
Banská Bystrica	38	26.1	11.9		
Prešov	35	29.6	5.4		
Košice	21	26.2	−5.2		
Total	304				

Table 3. Real and expected frequencies of the enterprises in the research sample by regional venue.

Size	Observed N	Expected N	Residual	Test statistics	
Medium	246	257.1	-11.1	Chi-Square	3.077 ^a
Big	58	46.9	11.1	df	1
Total	304			Asymp. Sig.	0.079

Table 4. Real and expected frequencies of the enterprises in the research sample by size.

One of the results of the examination is finding that in majority of enterprises hierarchy (35.53%) and clan culture (33.22%) are predominant (**Table 5**). Common values of both types are internal orientation, morals, and rules. The reason for such orientation can be sought in the way of thinking of people; employees perceive their task toward the outside world as totally given, based on the idea that business ethics and honesty matters most and that they know best what is good for the customer and the world at large. In the hierarchy culture the fear of uncertainty, as well as established methods and techniques are essential and necessary to reach the goals. On the other hand, clan culture promotes flexibility, which is essential to change mindsets of people and provides more space for human development and mutual cooperation. The scores of enterprises with different types of corporate culture are provided in **Table 6**.

The results of ANOVA and multiple comparisons (**Table 7**) show that the rate of HRD in enterprises depends on the type of corporate culture. This means that there is statistically significant difference between the level of HRD in enterprises with clan, adhocracy, market, and hierarchical culture. However, there is no statistically significant difference between the market and the hierarchy culture; therefore, we assume that the two types of culture are characterized by the same level of HRD. Nevertheless, we observed a significant difference between flexible and stable oriented cultures.

Culture	Total		No. of companies					
			Management					
	No.	%	Slovak		Mixed		Foreign	
			No.	%	No.	%	No.	%
Clan	101	33.22	47	29.94	42	38.53	12	31.58
Adhocracy	36	11.84	20	12.74	10	9.17	6	15.79
Market	59	19.41	19	12.10	31	28.44	9	23.68
Hierarchy	108	35.53	71	45.22	26	23.85	11	28.95
Total	304	100	157	100	109	100	38	100

Table 5. Corporate culture types in examined enterprises.

Culture	Rate of HRD					Total	Avg.	Med.	Mod.
	Very low	Low	Medium	High	Very high				
Clan	0	2	29	62	8	101	35.44	40	36
Adhocracy	0	0	20	15	1	36	31.44	34	32
Market	0	16	31	12	0	59	26.00	22	25
Hierarchy	3	35	52	18	0	108	24.48	30	25
Total	3	53	132	107	9	304	29.24	34	30

Table 6. Level of HRD in examined enterprises.

ANOVA	Sum of squares	df	Mean square	F	Sig.
Between Groups	7116.787	3	2372.262	49.640	0.000
Within Groups	14,336.684	300	47.789		
Total	21,453.470	303			

Multiple comparisons (I) Culture		Mean difference	Std. error	Sig.	95% confidence interval	
					Lower Bound	Upper Bound
Clan	Adhocracy	3.99120 [*]	1.34188	0.017	0.5245	7.4579
	Market	9.43564 [*]	1.13276	0.000	6.5092	12.3621
	Hierarchy	10.95416 [*]	0.95690	0.000	8.4820	13.4263
Adhocracy	Clan	-3.99120 [*]	1.34188	0.017	-7.4579	-0.5245
	Market	5.44444 [*]	1.46200	0.001	1.6674	9.2215
	Hierarchy	6.96296 [*]	1.33040	0.000	3.5259	10.4000
Market	Clan	-9.43564 [*]	1.13276	0.000	-12.3621	-6.5092
	Adhocracy	-5.44444 [*]	1.46200	0.001	-9.2215	-1.6674
	Hierarchy	1.51852	1.11914	0.527	-1.3728	4.4098
Hierarchy	Clan	-10.95416 [*]	0.95690	0.000	-13.4263	-8.4820
	Adhocracy	-6.96296 [*]	1.33040	0.000	-10.4000	-3.5259
	Market	-1.51852	1.11914	0.527	-4.4098	1.3728

Table 7. Results of ANOVA testing and multiple comparisons.

The purpose of the corporate culture change is to adjust employees' behavior that leads to good results, smoother running of business processes, higher satisfaction and loyalty of employees. The basic prerequisite for changes in corporate culture is to recognize the reason why the existing culture does not meet the expectations in all the areas. The process of

change is unique in every enterprise, because it depends on the current situation. The essence of change is the movement from the starting (current) point to the target (desired) state. Managers of the enterprise play the main role in this process. Based on the responses from the second questionnaire, we have compiled a model of corporate culture change. The process of changing the corporate culture is divided into three phases. The first phase involves identifying the current state of corporate culture, creating the objectives, values, and standards for employees to adopt. We kept in mind the main purpose that the new corporate culture should become more suitable for HRD. Each type of corporate culture has its advantages and justifications, but the support of HRD is different. If current state of corporate culture meets the needs and expectations of managers, they should not interfere in the recognized values or modify existing standards of behavior. But, on the other hand, if HRD is hampered by the corporate culture, then the enterprise is in the first phase of the corporate culture change (**Figure 3**).

Based on the results of the research, there are several possible directions of “moving” the corporate culture to become more supportive towards HRD (**Figure 4**). It is important to realize that with the corporate culture change also the change of at least one value (stability → flexibility or internal orientation → external orientation) is needed.

The enterprises with dominant hierarchical culture can change in three directions—toward clan, adhocracy, or market culture. The change toward clan culture requires a transition from stability to flexibility. It includes innovation, openness to change, teamwork, employee development, and creative working environment. Delegation of powers to employees and encouraging them into participation, loyalty, and identification with the enterprise are the main duties for managers and leaders. Participation on the tasks, loyalty, and trust should be established. Internal orientation is not a problem in this case.

The change toward adhocracy culture requires a radical turn in the established behaviors, communication, and assessment of values and standards. The philosophy of this culture differs diametrically compared with the original one. Change is acceptable only if the existing corporate culture is a significant barrier to the achievement of enterprise objectives.

Changing to a market culture retains a sense of stability and security, but it requires an external orientation. Actions based on market principles are expected. The enterprise should become primarily focused on the transaction with external business partners, customers, associations, and other enterprises. Due to the few statistically significant differences between the market and hierarchical culture in HRD, we do not consider such a change to be beneficial.

The enterprises with dominant market culture may opt for a clan or adhocracy culture. Either way they have to cope with the loss of some stability, which we consider to be the reason for insufficient level of HRD. Based on the research results, we recommend the adhocracy culture because it allows enterprises to maintain their external orientation. Maintaining at least one of the original values means that the changes do not affect all

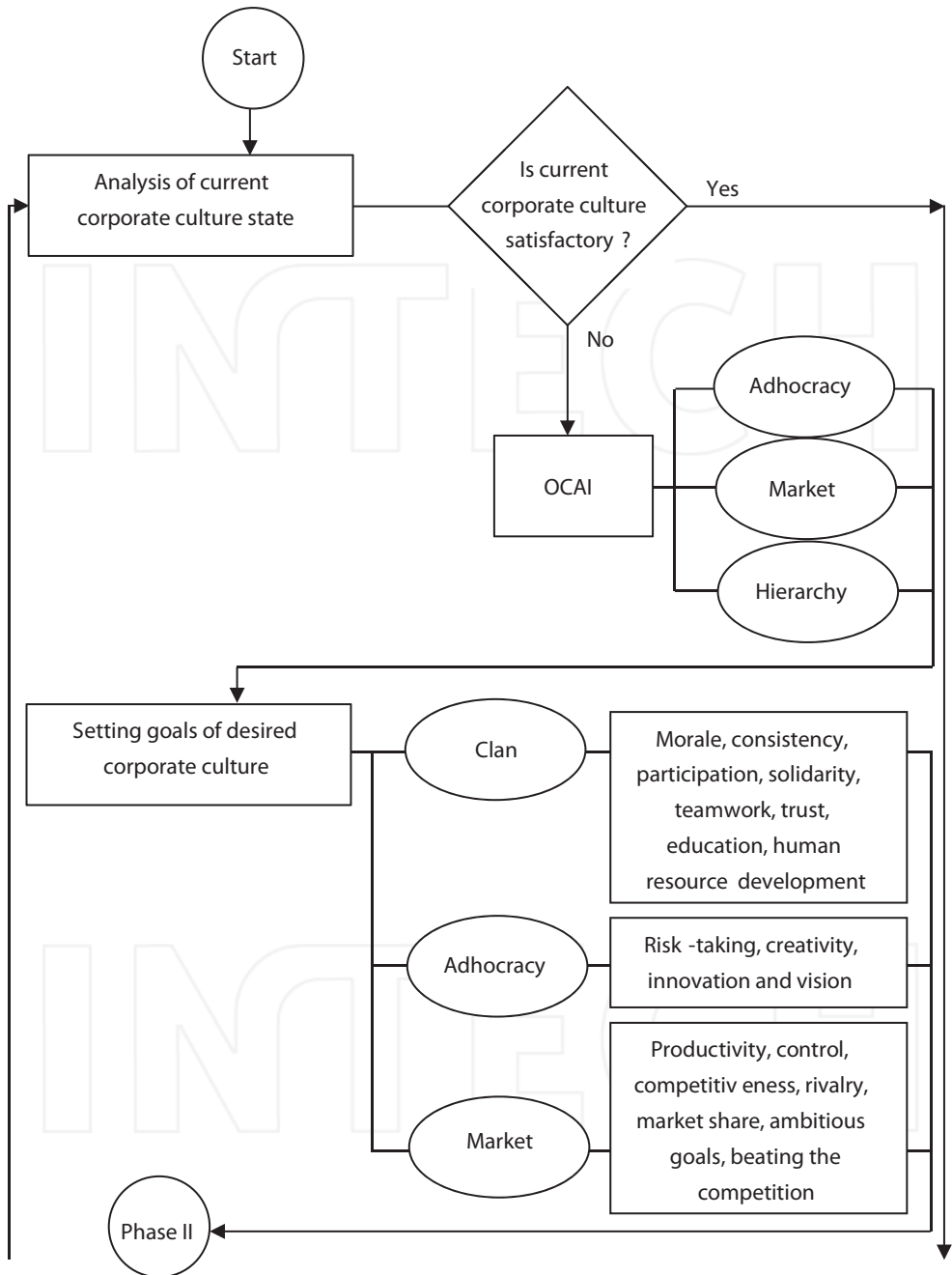


Figure 3. The first phase of the corporate culture change that supports the HRD.

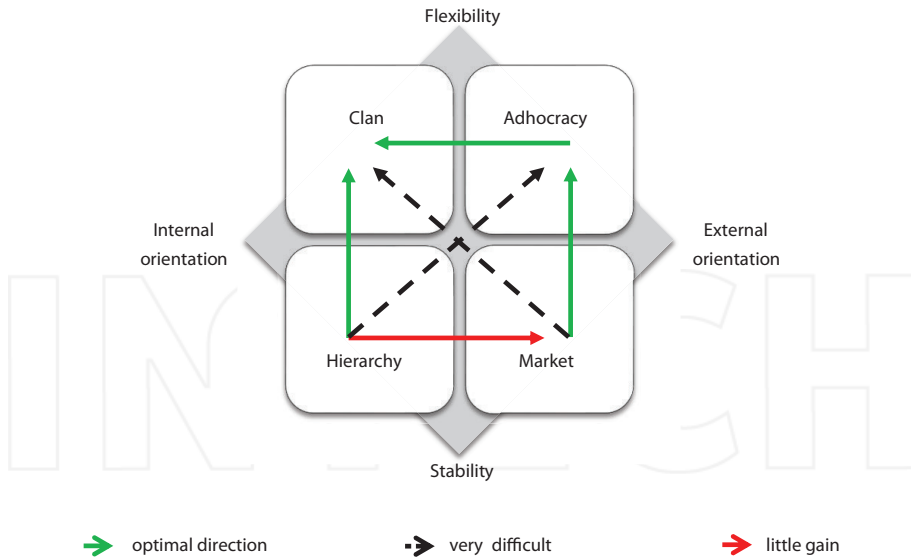


Figure 4. Possible directions of changing the corporate culture.

norms, values, and behaviors. But all the greater emphasis should be placed on enterprises' transition to flexibility.

There is only one option for enterprises with adhocracy culture to increase their level of HRD. They should try to adopt elements of clan corporate culture. This involves adjusting their values more internally while maintaining actual degree of flexibility.

After the choice of future type of corporate culture, the enterprise enters the second phase of change (**Figure 5**). This phase is important for the preparation of implementation. The decision on the content of communication with employees is a part of the preparation phase. People are usually afraid of new and unknown situations, cases that put high pressure on them and conditions that represent a certain diversion from the established zones. Changing corporate culture assumes an entirely new perception of ordinary things and situations. The information about the anticipated effects of the planned changes will be used in selecting the appropriate method of communication that fully reveals the particularly positive and negative consequences in an acceptable form. The movement toward the corporate culture with a greater emphasis on HRD has a positive impact from the employees' perspective. Nevertheless, some negatives may arise during the implementation process. If negative reactions occur, employees are not ready yet and the enterprise cannot continue to the next phase. The chosen ways of influencing and communicating need to be reevaluated and new effective actions must be taken.

A successful communication means that employees understand the causes of change and have identified themselves with it. That result in a favorable climate for the implementation

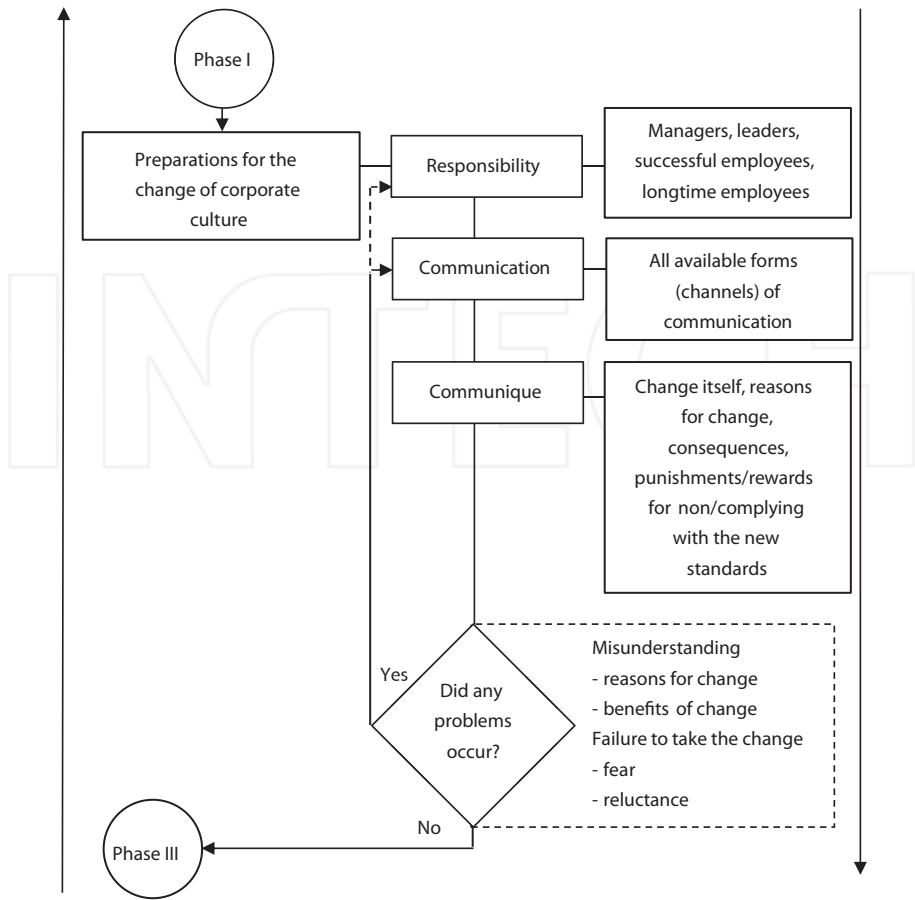


Figure 5. The second phase of the corporate culture change that supports the HRD.

of changes and the enterprise continues to the third phase (**Figure 6**), where the right tactics must be chosen. Finding several possible options that can be compared to each other is optimal. For designing such options, we recommend using creative methods like brainstorming, brain writing, synectics, or Delphi method. While generating options, the criteria and methods of their choice are also proposed.

Finishing the selection and successful implementation of selected alternative do not end the process of change yet. The final step is to compare the results of change with the objectives and to evaluate the feedback from all involved parts. This step requires reanswering the very first question, whether the current corporate culture meets the requirements of enterprise management and thus return to the first stage of the process of change is necessary. Only if the corporate culture matches the desired state, the process is completed.

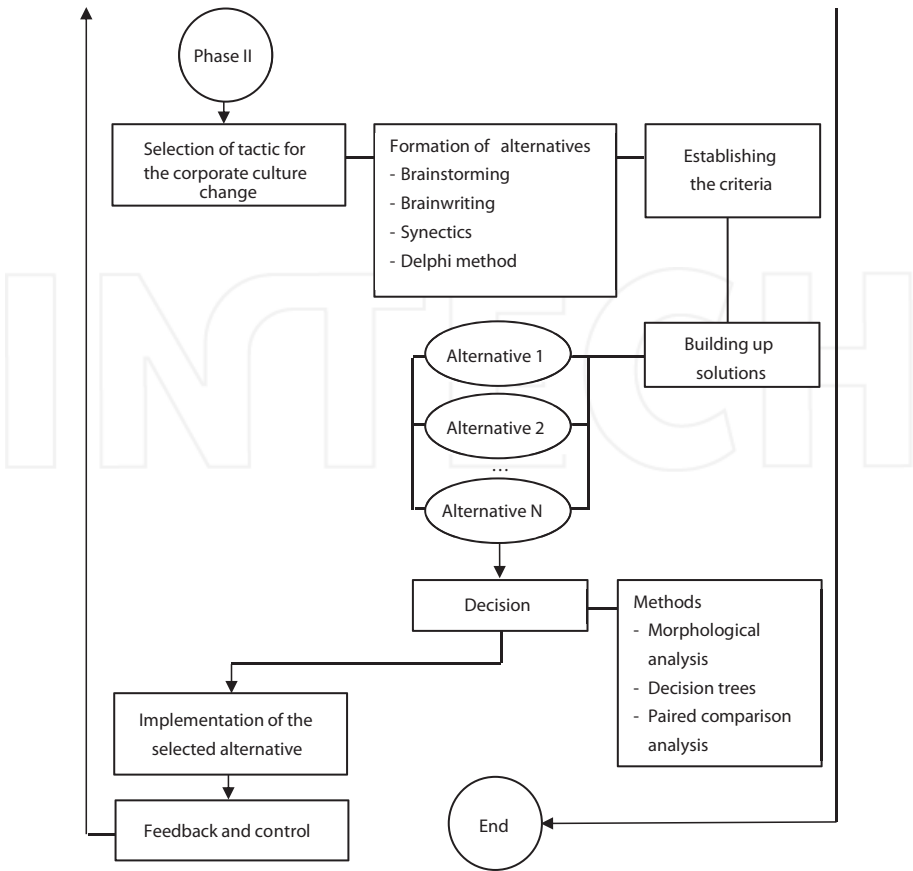


Figure 6. The third phase of the corporate culture change that supports the HRD.

5. Conclusion

It is necessary to focus on the human resources in the management of the innovation processes, because they are the most important resource. They are holders of the skills, experiences, knowledge, and abilities [27]. However, the process of diagnosing the corporate culture is neglected in Slovakia. Therefore, the aim of this chapter was to diagnose the types of existing corporate culture in Slovak enterprises and to propose a methodical procedure of corporate culture change supporting the HRD.

For identifying the type of corporate culture, a typology based on competing values framework [5] was used as well as the OCAI tool. Thus, we were able to subdivide corporate cultures of Slovak enterprises according to the competing values flexibility/stability and internal/external orientation, respectively. As a result, we found out that over a third of Slovak

enterprises are characterized by hierarchical culture that supports the HRD the least. But much more interesting is finding that there are internally oriented corporate cultures in a vast majority of Slovak enterprises.

Using mathematical and statistical methods, we have shown a strong relationship between the type of corporate culture and the level of HRD in these enterprises. The highest scores were recorded in companies with clan culture followed by adhocracy culture. We were unable to demonstrate a statistically significant difference between the level of human resource development in companies with market and hierarchical corporate culture. However, their level was significantly lower than in the first two mentioned types. Thus, we were able to demonstrate statistically significant differences between flexible and stable types with much higher level of HRD in enterprises whose culture was oriented flexibly.

Based on the mentioned findings, we defined the direction of possible change of corporate culture toward the better HRD and additionally we recommended a methodological procedure for corporate culture changes. This procedure was divided into three consecutive phases. By using it, enterprises can achieve a change in company culture to the one that supports the development of human resources more than their current corporate culture. We took into account the potential risks that are associated with any attempt to change. However, we must admit that managing people, especially the corporate culture, is very specific area to have one universal approach. Our procedure is just a recommended structure of possible steps and we understand that every enterprise can have its specific peculiarities. That stems from the fact that not only each enterprise sets different goals, but there are also different people as well as their opinions, goals, aspirations, and desires are different.

Appendix



Figure 7. Map of Slovak regions.

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Use of Psychological Examinations of Employees and Job Applicants in Personnel Management

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Additional information is available at the end of the chapter

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Abstract

This paper deals with psychological and diagnostic examination of the personality of employees and candidates for work, an unexplored subject in the field of labour law and human resource (HR) management in Slovakia. Based on legal analysis of national and international laws and regulations as well as medical knowledge in clinical and occupational psychology, the authors surveyed employers in various industry sectors to test several hypotheses. The results of this study and other empirical data are the foundation for conclusions and the legal basis for drafting a proposal to amend the current legal framework in Slovakia as well as in-house company procedures known as ‘best-practices’.

Keywords: psychological examination of employees, recruitment activities, human resource management

1. Introduction

Conceptual management skills and human resource (HR) planning are key elements of personnel management within the legal context of labour law relations, in particular, recruitment activities that result in acquiring certain types of employees who are capable of managing manufacturing, organisational and technical processes [1]. The importance of an effective selection procedure followed by selection of appropriate candidates for job vacancies has been increasing because of the gradually changing nature of manufacturing processes in the context of the fourth industrial revolution [2–18]. Industry 4.0 envisages that even tasks regularly performed in workers’ professions require the use of state-of-art manufacturing technologies that

cost several thousand to tens of thousands of euros. The new nature of these work positions, therefore, requires that employers fill the vacancies with employees who are more psychologically resilient to work stress, have certain cognitive, psychomotor and behavioural skills and personality features that help them fulfil their work tasks and at the same time prevent possible damage to the manufacturing means and/or reduce complaints from customers, which represent direct employer costs.

The changing nature of work has also had a significant impact on the content of the selection procedure which is no longer purely focused on gathering information on a potential employee, their work background, qualifications, and/or language and other skills [3–21]. In addition to the traditional assessment of physical fitness of an employee, the issue of the psychological capability of a future employee has been more and more part of the medical fitness examination of a candidate, probing their personal characteristics, personality and the presence of possible indicators of psychopathological behaviour.

With insufficient national and international regulation in this area, a conceptual dispute between employers and employee representatives in the Slovak Republic deals with identification of the borderlines at which it is possible to accept such interference in an employee's personal integrity when assessing his/her physical and psychological fitness: when does this have direct relevance in the performance of work and when it must be concluded that an employer did not conform with Slovak laws and possibly infringed on an employee's right to privacy and/or legal provisions related to the collection of employee's personal data that have no relevance to work performance [4, 5]. In practice, the above-described situation also includes, for example, if an employee must undergo a psychological examination when an employer wishes to terminate the employee's contract. These practices can be a certain form of bullying with the aim to exert pressure on an employee so that the employee would terminate employment on his/her own will and the employer might avoid paying compensation in the form of severance pay.

The situations and issues described above have drawn the interest of experts in the area of labour law and HR management, seeking to analyse the current legal status and to identify negative phenomena related to the application of current laws, with the ultimate goal to prepare amendments to the legal framework, including the drafting of new guidelines for its application in practice. These situations constituted the basis for the current research projects focusing on the collection of data to provide the basis for conclusions required for the preparation of *de lege ferenda* proposals as documented in this article.

2. Objectives, materials and methodology

The key objective of the paper is to analyse and compare the current national and international legal frameworks in the field of psychological examination of employees or job candidates and compare these with practical application. Other objectives of the research were to determine whether the examined industry sectors are engaging in psychological examinations and which forms and methods are being used to gather information about individuals,

and/or the approach of an employer to the selection of employees or job candidates who are to be subjects of such examinations. We have applied multiple criteria regarding the subject matter of this paper and the acquired knowledge and its empirical context are the foundation for conclusions and the legal basis for drafting proposals to change the current legal framework as well as company procedures to become 'best practices'.

In drafting the concept of the paper, it was necessary to collect facts and other information from primary and secondary sources. Primary data were acquired from a survey carried out as part of the scientific project sponsored by the Slovak Research and Development Agency (APVV - 15 - 0066): "New technologies in the context of labour law and employee protection". Secondary data were drawn from scientific literature. Because of the nature of the studied issue, the authors opted for a combined methodology (qualitative research methods and the application of selected quantitative approaches). Of the qualitative methods, we used the following: critical in-depth analysis of the current legal framework and scientific cognitive methods.

For the quantitative methods, we used inductive statistics to generalise the primary research results. The selected statistical set was composed of 150 employers of various organisational and legal forms with 110,000 employees, primarily from the manufacturing industry (automotive, electrotechnical and engineering). Most of the companies had foreign equity involved. Given these facts as well as the content of the interviews with the representatives of these companies, it is reasonable to assume that a similar approach to psychological examination of employees is taken in the other countries where these companies operate.

3. Formal conditions applicable to the selection procedure in the Slovak Republic on gathering information about the health and psychological fitness of employees

When identifying the legal framework in the selection procedure, Article 2 of the Fundamental Principles of the Labour Code (Act No. 311/2001, the Labour Code, as amended, hereinafter referred to as the 'Labour Code') may be used as the point of departure. Under the Labour Code, an employer has the right to freedom in selection of employees in the number and structure necessary as well as the right to define conditions and how this right is applied [6]. According to Section 41 of the Labour Code, even relations that are formed before the concluding of an employment contract are defined as contractual relations; based on this the employee has the right to fundamental human rights and freedoms, in particular the right to human dignity and protection of privacy and personality. It is required that the principle of equal treatment, and also all provisions of the Labour Code and the Constitution of the Slovak Republic relevant for the protection of the rights of employees, must be complied with.

Also, when organising and managing the selection procedure according to Section 62, paragraph 3 of Act No. 5/2004 on Employment Services, as amended (hereinafter referred to as Act No. 5/2004), an employer cannot require information from an employee during the selection process on his/her nationality, race or ethnicity, political attitudes, membership

in trade unions, religion, sexual orientation or any information that is contrary to accepted principles of morality and personal information that is not needed to fulfil the tasks and duties set by the employer and defined by a special provision. Upon request by an employee, an employer is obliged to document the need for requesting personal information from an employee.

As part of pre-contractual relations pursuant to Section 41 of the Labour Code, both the employer and the individual seeking employment have a certain obligation of information. In their effort to get to know their potential employees as thoroughly as possible, employers do not have the possibility to obtain, for example, referrals from former employers, and/or information concerning the use of narcotic substances, and so on, which could help employers select their employees.

Prior to concluding an employment contract, pursuant to Section 41 paragraph 1 of the Labour Code, an employer is obliged to inform an individual seeking a job about his/her rights and obligations that are subject to the future employment contract and about working and wage conditions under which he/she is to perform the work. An employer may, pursuant to Section 41 paragraph 5 of the Labour Code, require from an individual seeking a job for the first time only such information that is related to the work to be performed by the candidate if he/she is employed by the employer. From an individual previously employed, the employer may demand to submit an employment evaluation and an employment record. However, pursuant to Section 41 paragraph 6 of the Labour Code, an employer may not require information related to pregnancy, family situation, personal integrity, political affiliation, trade union membership or religious beliefs.

In general, based on the review of laws and regulations and practical experience from other European Union (EU) member states, the set of information could be outlined [7] of the types of information that an employer may be entitled to require from a job candidate, such as the ability to perform the offered job, work and professional background, courses attended, certificates obtained, logical skills, and the ability to manage stressful situations.

In **Czech Republic**, a new Specific Medical Services Act (Act No. 373/2011 Coll.) became effective. This act contains a new regulation on medical examinations of employees and stipulates the rights and obligations of employers and employees. The most significant changes in this field are a new legal fiction that a person who did not undergo an initial medical examination is deemed unfit for employment and a new legal fiction that a person without a valid medical examination is deemed unfit for employment. Each employee had to undergo an initial medical examination. The amendment introduces an exception that an initial medical examination is necessary in case of agreement on the performance of work or agreement on working activity only if the future employee shall perform hazardous jobs (as defined in legal regulations governing public health protection) or if the future employer expresses concern over the employee's state of health. The initial medical examination is performed prior to entering into an employment contract and takes at least 40 min (60 min in case of hazardous jobs). Upon this medical examination, the medical doctor issues a medical assessment by which the parties are bound, but may file an appeal.

The Act on Facilitating Business Activity **in Poland** is designed to simplify business operations and extends to such areas as employment law, modifying the rules for medical screening examinations of staff. Art. 229 of the Labour Code currently requires a preliminary medical examination, before beginning work, of persons newly hired, youth employees transferred to another position, and other employees transferred to a new position that involves health risks or difficult conditions. The amending act provides for a new exception of convenience to both employers and employees. There will be an exemption from the requirement for a medical screening examination also for persons hired by a new employer within 30 days after termination or expiration of a prior employment relationship, if they present to the new employer an up-to-date medical certificate confirming that there are no contraindications to working under the conditions described in the referral for a medical examination, and the new employer confirms that the conditions correspond to the working conditions at the new position.

In **Hungary**, based on 33/1998 on medical examination concerning suitability for sphere of activity, profession, and in regard to personal hygiene, the medical examination required for the position can be preliminary: periodical and extraordinary. Preliminary medical examination concerning suitability for sphere of activity shall be performed prior to the beginning of the working process: before the change of the position, the work place or the work environment. Periodical medical examination is required on an annual basis, for example, for the employee who is employed in a position, where risks of accidents are highly increased, the frequency of periodical medical examination is regulated by the decree. Extraordinary medical examination concerning suitability for sphere of activity shall be provided in the cases, for example, for the employee's health condition highly changed, which may make him/her unable to hold the position complying with occupational safety and occupational health requirements [8].

4. Psychological dimension of HR management in light of these issues

The use of psychological examination methods in HR management, especially in the context of the selection procedure, has become part and parcel of the modern concept of human resources. Professional use of psychological examination methods makes it possible for an employer to acquire information about personality features of candidates and/or employees, their personal characteristics, prerequisites and certain capabilities. These methods enable employers to assess the position and function that a candidate is most fit for, it helps them discover the candidate's growth potential and his/her strengths and weaknesses.

The first records about the selection of workers go back to the times of Ancient Rome when the Roman army selected their recruits—not only soldiers but also medics, explorers, carpenters, veterinarians and others. The ancient Roman army was highly demanding of its soldiers—despite the high pay it was a problem to recruit people fit for the job since the work of a soldier was also very risky. Therefore, recruiting agents travelled around the whole Roman Empire seeking suitable candidates.

An increased need to find fit, specialised workers emerged after the industrial revolution. The recruitment procedure started with a simple notification that, for example, a manufacturing plant had vacant posts and people could then simply apply for a job with that plant. The beginning of the use of psychological examination in the selection procedure dates back to 1901. The expansion of industry and the related demand for a great number of workers resulted in the need to look for quality employees to fill leading positions. For this purpose, psychological tests started to be used in practice. World War I had the most significant influence in the boom of intelligence testing (Army Alpha and Army Beta tests); an enormous number of military recruits had to undergo these tests. After successful use of psychological examinations during the war, this kind of testing started to expand in other areas. A more general interest in the tests occurred again before the beginning of World War II. Army psychologists were developing tests for various specialists. After the war, job agencies were established, offering work to job seekers.

Nowadays, the selection procedure focuses more on the selection of a candidate for a specific position in a company. An important change in the process of seeking and selecting employees was brought about by the Internet. The first round of job seeking and employee selection is currently done via the Internet.

The breaking point for the necessity to use psychological knowledge may be regarded as the period of the organisation of work initiated by the efforts of F.W. Taylor and F.B. Gilbreth to maximise the organisation, performance and rationalisation of work. Despite the fact that F.W. Taylor was vehemently refusing to accept social aspects of work and insisted on an individualistic approach, many of his processes and methods (e.g. timing of individual work operations, exact definition of workplace movements, breaks, etc.) meant a turning point in the development of work psychology [9]. Work psychology as an independent applied discipline dates back to the period after World War I. This discipline emerged under the direct influence of the specific needs of society. The publication of 'Psychology and economic life' by Münsterberg (1912) [23] was a pre-text to it. In this publication, the term 'psychological technique' was used for the first time ever and became a synonym for the first stage of the development of work psychology. The beginnings of psychological techniques are related to the development of psychological examination and diagnostics and, in particular, IQ tests. The term 'psychological technique' was defined by W. Stern, who originally meant the psychology of treating a person in search of an optimum between the means and intention, which differs from 'psychological examination' as a discipline of psychology in understanding a human being. Methods of psychological examination emerged to assess the characteristics of an individual and assist with the selection of a specific profession. It was based on a premise that problematic issues at work are caused by the fact that job positions are filled with individuals lacking the corresponding prerequisites. Recruiters focused their interest on finding differences between individuals and assessing how competent these individuals were to fill a specific job position. It was almost exclusively focused on the psychological selection of employees and professional counselling (a subjective psychological technique) and also, to a lesser extent, on the adaptation of working conditions (an objective psychological technique) [10].

Nowadays, the selection of suitable employees is important for companies primarily because of the financial aspect—an employee who is very productive may receive double the salary of an average or less efficient colleague; however, his/her performance is usually much more beneficial for the company than it might appear when looking at the salary difference between these two employees. It means that a smaller number of high-quality employees are of greater value for a company than a larger number of average or very mediocre workers. Today, various psychological methods are used by psychologists in an attempt to find out if a candidate is capable of meeting relevant requirements of a job position; it means that the prerequisites and potential of a candidate are measured. In this respect, we consider the application of work psychology and occupational psychology as key, as these are specialised and particularly practice-oriented disciplines that explore the principles of psychological regulation of work-related activities and how these principles could be used for the benefit of society [11].

To be able to select employees, it is necessary to determine their personal characteristics, competencies and skills that are most suitable for a specific job position and what it requires. As for their purpose, work psychology methods may be divided into research methods and intervention methods. Even though it is possible to determine the individual types of methods which fall under these categories, their exact division is not as straightforward as science would ideally assume. For example, an interview as a method may be both a research and an intervention method. Psychological methods are therefore divided per various criteria. The following types are most frequent [12]:

1. **Clinical methods:** observation, interview, personal history and analysis of spontaneous responses;
2. **Testing methods:**
 - performance methods: IQ tests, tests of special skills and individual psychological functions (memory, creativity, technical, verbal, mathematics and art skills) and knowledge tests;
 - personality tests: projective tests, objective personality tests, questionnaires, evaluation scales;
3. **Machine-assisted methods.**

Despite this division of psychological evaluation methods, it is necessary to emphasise that, 'In principle, any method of psychological evaluation offers certain information that goes beyond the frame of its defined validity, for example, in addition to qualitative analysis of an observed behaviour of a respondent, IQ tests provide us with a fundamental outline of his/her personality' [13]. Interview is the most frequently used method all over the world. IQ tests and personality tests are also widely used.

Intellect means an ability that has an impact on and is a prerequisite for whether a person is capable of dealing with various situations: '...it is the ability of an individual to learn and be able to find direction in a new situation regardless of previous experience' [14]. When using an IQ test, it is therefore possible to predict work performance of a person. The more

demanding the work is, the more it requires a certain degree of independent decision-making and responsibility, and the more important it is to know the IQ score of a candidate for such a job position. It is also important to know that these types of tests may be applied successfully only if the individual is collaborating. If a person who is subject to the test does not collaborate, the test results do not reflect an objective level of the person's skills. In addition to this, the test results may be biased due to the current health condition and/or emotional state of a respondent, or due to other test situations (sex and age of the testing and the tested person, their mutual sympathies, the first impression, etc.). These test results are usually presented as the well-known intelligence quotient—IQ. The average IQ score in the population is 100, with a standard deviation of 15 points (the intellectual capacity of the majority of the population is between 85 and 115 points). IQ tests are further divided into verbal tests (knowledge acquired through learning), performance tests (inborn potential not influenced by learning) and comprehensive tests. The following tests are currently used the most: Wechsler Adults Intelligence Scales (WAIS-III), Raven Progressive Matrices and IQ Structure Test (IST).

It is only natural that the work performance of a person is also influenced by his/her personal characteristics. Personality tests are used in order to learn about the personal characteristics of a person and/or changes in their personality when subjected to various factors (e.g. extreme load, disease, injury, etc.). These tests are based on different concepts than performance tests. It is not performance that is measured; therefore, there are no 'correct' or 'incorrect' answers. The goal of these tests and examinations is to differentiate between individuals with different personality characteristics (e.g. introvert vs. extrovert, dynamic vs. passive, ability to lead a group or adapt to a group, and other characteristics), interests, attitudes and/or different clinical symptomatology (symptoms of mental disorders). When assessing psychological competencies of a person for the purposes of HR management, personality questionnaires and projective techniques are most relevant.

Personality questionnaires are based on a subjective deposition of a respondent about his/her personality characteristics, how he/she responds to various situations, what his/her opinions are, and so on. They rely on introspection (conceptions about oneself) because the answers of an individual depend on their inner observations (to what extent is a respondent able to make appropriate assessments of oneself). This is the reason why one of the most frequent criticisms of personality questionnaires is a reservation that they do not assess what a respondent is like but rather how they see themselves and what they wish to be like. Another disadvantage of these questionnaires is that the results may be intentionally biased. Many questionnaires attempt to control such possible intentions by engaging the so-called 'lie scales'. Individual items in these lie scales focus on minor human 'sins' that are considered negative, but on the other hand, they are committed by most people (e.g. the statement: 'At home, I always eat with the same good manners as eating at a social event'). As part of the modern selection procedure, mainly when selecting candidates for managing positions or mentally demanding conditions, the so-called stress-test of cognitive processes regulation is used. Its purpose is to assess mental stress resistance levels. The most frequently used questionnaires are NEO—Five Factor Personality Inventory; MMPI—Minnesota Multiphasic Personality Inventory; the Stroop Test; BIP—Business-Focused Inventory of Personality; and others.

Projective methods employ indefinite and relatively unstructured stimuli. One may respond to such ambiguous stimuli in multiple ways, which creates room for projections. It is assumed that while processing and responding to multivalent stimuli, respondents project some parts of themselves into them, such as their perceptions, expectations, longings, despairs, complexes, moods and so forth. Such response may, therefore, provide information on personal characteristics of an individual. An advantage of the projective method is that it allows for a minimum (typically none at all) intentional influence over the results since the scrutinised person has no clue as to the purpose of the method. Moreover, the application (test procedure) of projective methods does not mimic an examination in its nature, thus it appeals to most respondents. However, the application of projective methods by non-psychologists or psychologists without adequate training (for this purpose, a single university study programme of psychology is considered adequate training), possibly their application by psychologists who failed to undergo training courses on particular projective methods or those who lack experience in applying a particular projective method under satisfactory supervision, may pose a risk. Projective tests include the Rorschach test ROR, Hand test, Draw-A-Person test, Thematic Apperception test (TAT), Tree-drawing test and Lüscher Color test.

There are a great number of theories about personality and personality characteristics. Based on extensive research, five basic characteristics have been determined as a result of an independent factor analysis by which every human being can be described. Currently, the most widely used is the five-factor model of personality called the 'Big Five'. Based on this model, there are five dimensions of personality:

- **Openness** to experience—intellect;
- **Conscientiousness**;
- **Extraversion**;
- **Agreeableness**;
- **Neuroticism**—emotional stability.

Intelligence and some dimensions of personality are interconnected, but some are not. Based on this model, we propose the following:

Neuroticism—the higher it is, the lower the person's results in IQ testing is—his/her anxiety jeopardises his/her performance under stress;

Extraversion—a person with high level of extraversion can better cope with intrusions from the surrounding environment; he/she has a better short-term memory; on the other hand, introversion is intertwined with good long-term memory and long attention span;

Openness to experience—best correlates with intelligence; curious people seek more answers, do more research and these activities are backed up by abundance of knowledge, which is directly linked with the degree of intelligence;

Agreeability—fails to correlate with intelligence;

Conscientiousness—negatively correlates with congenital intellect, which means that people with lower level of intellect tend to be more systematic and persistent in order to leverage their insufficiencies; on the other hand, more intelligent people regard their intellect as sufficient and therefore feel no need for advancing their systematic qualities.

Psychological examination is a very complex process; therefore, the application of testing methods without mastering the theoretical background, and/or the mechanical interpretation of these methods without verification of hypotheses implied by the tests, and without the back-up of clinical methods (observation, interview, information from the applicant and his/her surrounding) may not be objective and may not give a clear answer whether a candidate for work is or is not suitable for the job [15].

5. Examination of medical fitness during the selection procedure according to special regulations

An employer may, pursuant to Section 41 paragraph 2 of the Labour Code, demand information concerning a future employee's health or psychological fitness and/or another condition necessary for determining the future employee's ability to perform work, but only if such capability for work performance is required by a special regulation. The intention of **health evaluation of an employee as well as his/her psychological capability** is that **an employer has proof that the employee is competent to perform the agreed work** and to ascertain that during the performance of agreed work the employee's **life and health will not be threatened**. The evaluation of an employee's health condition is important in labour law relations, although it is a very sensitive area and affects an employee's personal integrity. It is also part of the personal data of an employee or a candidate. Information on the health condition of an employee may be processed only by a person authorised to do so according to special regulations (e.g. the Act on Health Care). For the purposes of selecting a suitable candidate, an employer may process only information **whether the candidate is competent or incompetent to perform the work required by the specific work position**.

As for health-care assessment, according to the Act on Public Health (special Act No. 355/2007 on Support, Protection and Development of Public Health) and further to the duties of an employer defined in Section 30 item 1b and c of the Act (the duty of an employer to provide for medical supervision and evaluation of medical fitness for work), the nature and content of medical examination of a candidate for work and/or an employee are stipulated by the Journal of the Ministry of Health of the Slovak Republic (MH SR Journal), items 1 through 10 of 29 January 2014. The Journal determines mainly the type and timing of preventive medical check-ups in connection to work factors and the work environment or more specifically to work positions for which a medical fitness examination is required according to special regulations. **Preventive medical check-ups aimed at the evaluation of medical fitness prior to the conclusion of a labour law relation** or similar labour relation of a job seeker focus on the discovery of the already developed pathological conditions, and also clinically asymptomatic but already detectable risk indicators for an occupational disease or illness related to work.

Finally, the aim of these examinations is to trace a disease that could later contraindicate the candidate's work performance. **Work-related preventive medical check-ups** typically apply to persons whose work positions are ranked as third or fourth category; persons whose jobs are ranked as the first or second category need to undergo work-related preventive medical check-ups only if a specific regulation requires so, or if an employee requests a preventive medical examination. A **periodic work-related preventive medical check-up** takes place biannually for work positions ranked as the third category and annually for work positions ranked as fourth category. Periodic preventive medical check-ups of persons performing work belonging to the first or second category are conducted only if a special regulation so requires at intervals stipulated in the regulation. A preventive medical check-up prior to a change in work position must, always, take place before the actual change occurs.

Examinations that are part of work-related preventive medical check-ups can be divided into **basic examinations** forming an inseparable part of each work-related preventive medical check-up in the extent stipulated for individual factors, groups of factors or performed activity (see MH SR Journal, Volumes 2–6) and **complementary examinations** performed in justified cases (see MH SR Journal Volumes 2–6). These are indicated by the physician performing work-related preventive check-up on an individual basis; they are warranted by identified and assessed health risks, labour factors or the occupational environment, work performed, potential occupational health hazards, or if it is necessary to conduct them in order to exclude contraindications. Work-related preventive medical check-ups, which are part of health supervision in the area of occupational health, are performed by qualified occupational physicians and physicians qualified as general practitioners working outside occupational health services [16].

Subsequently, it is important to pay special attention to psychological examination while differentiating whether it is part of health fitness assessment and a prerequisite for work performance (e.g. soldiers, police officers, judges and certain railway employees) or whether it is a psychological examination which goes beyond legal requirements and is, in fact, a requirement set (unilaterally) by an employer, unsupported by applicable laws and regulations (e.g. examining various skills of managing employees). In this respect, even the person performing these examinations may differ, that is, it may be a physician performing clinical psychology as a medical field or an occupational psychologist.

With regard to personal data protection in the context of psychological evaluation of a candidate's psychological capability, specific cases must be explored and whether in specific cases an obligation imposed by an employer is part of the basic or complementary **examination** within a preventive medical check-up conducted **in relation to work and with regard to the work and environment factors or the type of work performed by the employee**. This means whether an employee should undergo such examination at all (e.g. assessment of his/her psychological capability for the performance of work). If the MH SR Journal stipulates that medical examinations include, for example, a psychological examination for a specific type of work, which is part of the basic or complementary examination for the assessment of medical fitness, it is then an employee's or a candidate's obligation to undergo such examination as there is legal base for the processing of personal data due to a special regulation (Act on Public Health, Journal of the Ministry of Health). If a psychological examination is only

part of a complementary examination, it is necessary to explore the reasons for request of such examination on the part of the physician who performed the preventive medical check-up in relation to the person's work, and with regard to issues related to material grounds for performing a complementary examination. **Psychological examinations that are part of health condition assessment** of employees or candidates for work are demanded within a basic examination for work that includes, for example, driving motor vehicles, and within a complementary examination with, for example, work that includes maintenance of boilers of I. through to V. categories, or maintenance of small motor vehicles.

If any part of the procedure described above for the implementation of a psychological examination of an employee as part of assessment of his/her health condition in relation to work performance is not observed, it is not possible to justify the requirement for a psychological examination based on the application of a special regulation, and such action on the part of an employer would be in direct contradiction of labour law provisions. Similarly, such procedure would be in contradiction of the Act on Personal Data Protection, since in this case the employer may only acquire personal data to an extent and in the manner prescribed in a special regulation.

When the psychological examination is part of a medical examination pursuant to relevant provisions of a special regulation, the manner of execution of the psychological assessment is at the discretion of the physician who performs the psychological examination (as a rule, it would be a clinical psychologist requested by the employee's general practitioner (GP); an occupational psychologist is rather an exception). The issue of the form and type of the examination (e.g. which psychological test is best in order to gather all the necessary information for an employer even beyond the facts that are to be acquired pursuant to a special legal provision) is exclusively subject to the decision of the GP and shall not be influenced by the demands of the employer or the employee. The primary responsibility is therefore borne by the GP while his/her decisions are subject to scrutiny according to a special regulation as part of *lege artis* scrutiny of provision of the health care.

6. Examination of medical fitness during the selection procedure upon the decision of an employer

More frequently scrutinised cases of medical fitness examination of job candidates are those in which no specific requirements about a candidate are laid down in a special legal provision, or there are no special legal provisions regulating the work performance of the candidate's job position. In practice, there are disputable situations related to medical fitness examinations when the concerned employees that are subject to medical fitness examination are not covered by the above-described special regulation, and it is this fact that is similar to the issue of the physical fitness of an employee. An employer shall not assign work performance to an employee who is not medically fit to perform the work [17].

At present, some employers demand various psychological tests or examinations as part of their selection procedure. The question arises whether an employer may demand that a candidate take a psychological test or examination unless it is prescribed in a special regulation

and, at the same time, whether an employer may define the form of such psychological examination of a candidate or an employee when the employer wishes to gain information about the reactions, behaviour and mental state of candidates or employees to be able to make a better decision with regard to the filling of a work position. Given that imposing duties on employees must be within the limitations of and based on the law, and that the Labour Code provisions may be considered cogent standards that cannot be departed from, it can be concluded that an employer **does not have such authorisation**. When imposing duties, an employer is also bound by the type and location of work performance of an employee, and/or agreed work conditions.

In this regard, it is necessary to differentiate whether the aim of a psychological assessment carried out by means of psychological examination methods is to understand characteristic features of an employee or to examine the core of his/her personality – which can be done only if required by special legal provisions. It is therefore questionable whether an employer may examine the above-mentioned personality traits and/or whether such examination would not already constitute interference with the personal integrity of an employee executed without his/her consent. With the lack of special regulation in this area, the fundamental principle of private law in which ‘everything that is not forbidden is permitted’ cannot be taken as the baseline for permitting psychological examinations without any limitations exclusively at the discretion of an employer. It is our belief that a benevolent attitude to psychological examination of candidates for work and employees causes unacceptable interference with the balance of rights and obligations for both parties and leads to the occurrence of negative phenomena which have been confirmed also by the conclusions of the conducted research. To the contrary, the authors believe that it is essential to apply the principle that the assignment of duties to employees shall be done **only on the grounds of law, within its boundaries and while observing fundamental rights and freedoms**.

When attempting to determine the right of an employer to demand a certain psychological capability of employees and therefore demand that they undergo a psychological examination, it can be argued that the Labour Code stipulates that employers, in line with specific conditions of their work, can define their employees’ **requirements for proper performance of work**. An employer must proceed in line with the **proportionality principle** and define requirements in such a manner that they are **justifiable and legitimate for a specific type of work**. However, we believe that for certain types of work it should be possible to request special capabilities, including the requirements for a certain psychological capability provided this **special capability is necessary for and directly linked to the kind of work and activities performed as part of this specific type of work**. Thus, an employer’s **across-the-board instruction for employees to undergo psychological examination**, regardless of the type of work or specific tasks to be performed, can be considered **inappropriate and non-justifiable**.

Given the lack of specific regulation on the examination of psychological capabilities of employees, one must be aware that the exercise of establishing the legal basis for conducting a psychological examination must be carried out in the context of two, independent legal modes, and that these modes partially contradict themselves within the legal order of the Slovak Republic. The Labour Code, on one hand, stipulates that an employer may establish

a psychological capability examination as a prerequisite for the performance of work and in order to secure legal certainty **ask for consent of all employees with such assessment conducted by means of a psychological capability examination**. If an employer does not have the consent of an employee to a psychological examination, the employer's **authorisation to unilaterally demand that an employee take a psychological examination** would be associated with a serious risk that such action would be evaluated as not being compliant with the law.

On the other hand, when looking at the issue in the light of the Act on the Protection of Personal Data, an employer may process personal data only at a scale pursuant to special legal provisions, and in only exceptional situations may the employer link such collection of information to an employee's consent. However, in such a case, the assessment of psychological capability would mean such a serious violation of the fundamental human rights and freedoms of an employee (in particular, the right to privacy and family life) that it should not be bound to the employee's consent to undergo a psychological examination. From the viewpoint of the Act on Protection of Personal Data, if the execution of a psychological examination of an employee cannot be legally based on any special regulation, an employer cannot carry out such psychological examination.

7. Practical application and conclusions

Our scientific survey points to several problematic issues in practice related to the execution of psychological examination during the selection procedure and within labour law relations. Therefore, we need to apply several criteria to the explored matter. The main goal of the survey was to identify the current state of play regarding the use of psychological examination methods primarily in selection procedures conducted by employers; our interest area was later extended to current employees of the employers in the selected sample. The survey also focused on the types of psychological examination methods used. The aim was to confirm the set hypotheses that were formulated based on prior experience of the authors. Various viewpoints were applied to the evaluation of the gathered survey material. Procedures taken by employers in relation to the collection of personal data of employees by means of psychological examination of their capabilities were explored as well as compliance of these procedures with the laws of the Slovak Republic. The application of psychological tests itself was evaluated by an independent psychologist, employing as a criterion the premise that the BIP personality test led to lesser interference with privacy (mainly in terms of personal data acquisition about the personality traits of candidates and employees that are not work-performance related) than the more popular and widely used 16 PF test.

The examined selected sample confirmed that psychological and diagnostic examination of employees' personality is carried out by approximately 60% of employers (90 employers), and a great majority of them (70%) use the 16PF personality test. When attempting to confirm our hypotheses, the primary emphasis was not to perform quantitative research but rather to

identify the current status quo and determine the trends in practice so that we would be able to formulate conclusions in terms of *de lege ferenda*.

7.1. Hypotheses, their verification and justification

Hypothesis 1: *There is a trend among employers to demand psychological examination across-the-board from candidates and employees when filling work positions regardless of the fact that the job descriptions and work assignments for these work positions do, in fact, differ.*

When exploring and verifying this hypothesis, we concluded that this was confirmed and the reasons for this confirmation can be found in the organisational structure of employers. The organisational structure defined basic categories of employees regardless of the nature of the performed work (there was differentiation of employees to production and non-production categories) and certain subcategories depending on the duration of employment with the employer. However, formally we were seeing the same level (type) of employees within the same line of the organisational structure. For example, some work posts with different work performed were marked as 'desk officer-operator' but only one of the employees who was marked as 'operator' performed the actual work that required the operation of state-of-the-art technology for which the requirement for a higher (certain) level of psychological capability could be objectively justified.

With all other operators, psychological examination was carried out 'as if' just to make sure, for example, if there was a need for replacement of the operator, the employer would be able to secure continuity of the manufacturing process. In the real world, though, such a replacement was used very rarely since in case of a need to replace such an operator employers used operators from other work shifts, which means that there was no use of other employees as replacement operators and there was no objective reason to use them because of the sufficient number of shift employees. However, employers had at their disposal a whole pack of information resulting from psychological examination of employees. These data were of a personal nature, concerning medical fitness, but the nature of these data was in no way related to the performed work of employees or the work to be performed by candidates (this kind of psychological examination was applied also to the assessment of job candidates). At the same time, employers did not have the consent of employees to such psychological examination since they had set as a prerequisite a certain level of psychological capability which, however, was not specifically defined by in-house company regulations.

Hypothesis 2: *As part of psychological examination, most employers tend to use tests that are intended to result in a greater scale of information about respondents' personal characteristics (16 PF test instead of the BIP test) than would be required by the nature of work.*

Based on prior empirical experience, a hypothesis was formulated, which was to verify whether employers tend to use contractual physicians to help them pick such forms of psychological examination of employees, the aim of which is not only to ascertain an employee's capability to perform certain work but also to acquire other types of information on a person that could help the employer better decide on a candidate for a specific work position.

Verification of the hypothesis was based on a qualified assessment of tests that were used as part of psychological examination, pen and paper interviews with employees, and on the information that was provided to physicians during psychological examination. Similarly, pen and paper interviews were conducted with the psychologists in order to find out what the reasons were for having conducted the same type of interviews with employees.

The most frequent indications concerned IQ and personality tests of candidates for work or employees. Often, physicians (clinical psychologists) specified the purpose of an examination (e.g. a personality test with the focus on emotional disorders, tendencies to simulation or aggravation, etc.). As part of psychological examination, special methods were used with the aim to acquire information on a respondent that is valuable from the diagnostic point of view; both types of psychological examination methods were used (clinical methods and tests).

The majority of psychological examinations applied personality testing as the method for job candidates (these were also used with employees). These had general orientation without a direct relation to the nature of the work performed or to be performed and their aim was solely to determine a personality profile. Personality questionnaires, completed by respondents, and projective methods that were used with selected categories of employees (these were used most of the time when filling positions for higher management) were used to get a broad scope of information for an employer about the person's personality. Quite a high number of these tests were not related to the performed work; they just provided employers with information on personal characteristics of candidates. The studied sample confirmed quite extensive use of the standard personality test 16 PF, which from the viewpoint of labour law and with regard to the authorisation of an employer to collect such a broad spectrum of information means serious interference with an employee's privacy despite the fact that it is a very popular test in HR management (the test should be conducted by a clinical psychologist with appropriate certification, which is not the case with the majority of those sampled, and it is questionable whether the 16 PF test employing the current standardised norms is being used in order to produce reliable results). We consider the acquiring of information about emotional stability, firmness of attitudes, introvertedness or communicativeness as verifiable interference with the personality of job candidates that an employer does not have the right to exercise unless the job applicant had given prior consent pursuant to the Labour Code. Pursuant to the Act on the Protection of Personal Data and in terms of what was presented above, these actions were clearly on the contrary to the laws of the Slovak Republic. The use of the BIP test was less frequent, even though in the context of privacy protection of employees it is easier to determine the relevance of the test to the nature of the work to be performed by the job candidate or the employee, and/or the performed work in general. In terms of the nature of the acquired information, such as the respondent's conscientiousness, flexibility or confidence, the use of the BIP test can be considered more legally conforming.

The use of stress-management tests was documented to a smaller scale (only the SVF 78 test was identified) especially in light of the fact that these types of tests were used only with regard to filling higher management positions where stressful situations are more likely to occur in greater numbers.

8. Conclusions and recommendations

The above-described state in the relevant national and international labour law provisions as well as the results of the conducted scientific research has led us to the conclusion that there is a need to adopt legislative amendments to laws regulating employee selection and hiring procedures, especially covering the area of medical fitness examination of job candidates and employees conducted by employers [19, 20]. Against these deliberations and efforts of, mainly, employee representatives stand the large, above all, multinational employers whose interest is to adapt formal selection procedure conditions to their internal, specific rules which often differ significantly from the general ones, and their intention is to acquire from potential employees as much information as possible that might help them decide about employment of a candidate. Regardless of the above-described two parties of interest, and with an attempt to review the issue in an objective manner, we do believe that this review has demonstrated the necessity to define minimum legal criteria (procedural and material) for the process of psychological examination of job candidates and/or employees (also during employment) so that there are clear limitations set to an employer's interference with the employee's personality and his/her fundamental human right to privacy and family life [22].

What may be considered as recommendations are to define: who would be authorised to assess psychological capabilities, the types of admissible personality tests and projective methods with regard to the nature of work performance, and the obligation of an employer to always obtain consent from an employee for a psychological examination (with a prior obligation to provide information about the content and course of the examination, specifying the information that the employer is to learn about the employee's personality traits). In this respect and given the growing number of multinational companies and the universal nature of fundamental human rights and freedoms, we see room for professional international discussion of experts examining the possibility of adopting a common European (multinational) regulation.

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INTECH

Emotional Capital in Family Businesses: Decisions from Human Resource Management Perspective

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Additional information is available at the end of the chapter

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Abstract

Nowadays, family businesses (FBs) have become a distinctive organizational model, not only for preserving the values of their founders in times of technological, political and economical changes but also for fostering a different kind of organization surrounded by emotional ties. This is particularly interesting to the human resource management (HRM) area, because managers must take decisions aimed at achieving economic and financial goals, which often affect the emotional stability of family members. Regarding this issue, the term emotional capital (EC) appears as a set of assets based on the emotions that the organization has developed over time with their employees. This chapter examines, from the HRM perspective, how human resource choices can be affected in order to preserve a positive EC for organizations. Due to the social implications emotions have in HRM, the chapter also links corporate social responsibility (CSR) as an important management strategy, focused on meeting employees and social concerns, as a way to strengthen the emotional bonds in companies. The literature review and institutional reports pointed the characteristics of FB in Spain, describing how companies could design human resource policies and practices aimed at keeping EC. Finally, the configurational approach of HRM is used to explain the design of the best possible human resource practices adapted to a particular context like FB.

Keywords: configurational approach, corporate social responsibility, emotional capital, family businesses, human resource management

1. Introduction

The globalization and the massive technological changes have provoked the existence of giant organizational and successful models in terms of adapting their structures and goals, as well

as surviving in several environments [1]. However, these firms are becoming standardized, hence being difficult to differentiate them from neither competitors, not having the possibility of offering a unique product or service in the market. Usually, these companies appear as multinationals or franchise-type businesses, being widely distributed throughout the world. On the contrary, family businesses (FBs) usually have a unique culture based on the values and principles of their founders, producing a different product or service able to compete against these globalized organizational models [2]. Nevertheless, this competition is not so easy. There are a wide number of external issues (competitors, suppliers, customers, financial and legal aspects, institutional barriers, etc.), which significantly affect the survival of FB, and it is being particularly interesting to examine how internal aspects can produce a competitive advantage from the heart of FB. In this regard, the human capital is one of these internal aspects, which makes the difference. In FB, the new heirs of the company continue and give life to the company generation after generation, creating an important emotional stock. The emotional component in FB is attributed to a system of values and beliefs rooted in the family [2]. In this line of reasoning, some important decisions from the family members must be taken in order to preserve Emotional Capital (EC) and family relations inside the company. Different works highlight the relevance of understanding family links as a strong point of support from the HRM field [3]. Although in some cases, family members are not as qualified as other potential candidates in the labour market, their love for preserving values, commitment, sense of belonging, and attitude towards the company can represent strategic values to human resources managers.

In this sense, lately, the link between EC and FM is attracting academics attention [4]. EC has been defined in many different ways and contexts over the years. Particularly, EC is defined as 'the aggregate feelings of goodwill towards the company and how it operates, thus representing a set of assets based on emotion that the organization has developed over time with their employees' [5: 74]. Regarding this definition is the way in which the company operates, which is what determines the emotional component of employees. Therefore, the FB board direction is a key factor in the development and preservation of these emotions. Additionally, EC can be classified as a specific dimension of social capital, '*constituting an asset in which to invest resources to future expectations, though with uncertain results*' [5: 74]. Other researchers introduced the concept of EC in the field of HRM, defining it as '*the set of resources, understanding as emotional competencies that inhere to the person, useful for personal, professional and organizational development*' [6: 4] [6]. The previous contribution also linked emotional competencies with emotional intelligence models, providing some relevant skills related to emotions such as flexible planning and creative thinking [7]. These skills are determinant in the design of a configuration of HRM policies and practices, integrating the protection of EC.

2. Objectives

This chapter focuses on examining how HRM decisions can be affected by policies and practices aimed at preserving EC. In order to do this, the literature review of HRM in FB and how other social aspects embedded in CSR philosophy are examined as follows. The conceptual model, which will be proposed, is based on the foundation of the configurational approach,

which explains how the construction and identification of ideal profiles of HRM could be tailored to specific business circumstances or contexts [8–10]. Concerning this issue, FBs are considered as specific scenarios surrounded by emotional ties and circumstances where a configurational approach of HRM can be identified. The configurational proposal takes into account several characteristics of FBs based on the main institutional report of FBs in Spain. The report of the Institute of FBs [11] in Spain is analysed to identify these characteristics. The answers and opinions of 150 FB owners give us the opportunity to know more details of the Spanish FB framework. Moreover, some relevant FB reports are examined in order to complete this content analysis.

3. Family business in Spain: some relevant characteristics

Academics and professionals have a crescent interest in a deeper knowledge of the processes and resource management in FB [12, 13]. In Spain, the Global Family Business Tax Monitor [14] highlights the relevance of FB in the Spanish economy. It is estimated that, in Spain, 1.1 million companies are family owned, which represent the 89% of the total number of companies. These companies constitute the biggest source of employment in Spain. Currently, they create 67% of private employment, with a total of 6.58 million of jobs, being responsible for the 57.1% of private sector Gross Domestic Product (GDP). In the European Union, there are 17 million FBs, which also generate 100 million jobs. In comparison, in the United States, it is estimated that family businesses occupy 80% of the business production, generating 50% of private employment.

Considering the previous economical implications, the aim of researchers relies on analysing how FBs can manage and obtain competitive advantages from their management processes. Regarding this issue, human capital represents the most important asset for companies according to the human capital theory —being necessary to properly invest in education and training [15, 16]. Consequently, the HRM area has played a paramount role in the history of management, not only claiming the relevance of human capital but also showing how different human resource practices can affect strategic outcome ratios such as turnover, productivity, and financial performance [17]. Additionally, FBs develop particular environments for creating value for society. Recently, some authors highlighted the relevance of strategic intangible assets in FBs such as intellectual capital and social capital in the generation of entrepreneurial networks [18: 566]. They also emphasized that the management of these intangible assets can develop new business opportunities [18].

However, before presenting any conceptual proposal regarding an efficient HRM configuration for FB, it is necessary to examine the characteristics of FBs as particular organizations. For this purpose, we will follow the reports of the main professional institution in FB. In Spain, there are many relevant institutions working in the field of FB, but the most recognized is the Institute of Family Business.¹ Its main functions are integrating a network of family business chairs and developing

¹The Family Business Institute was founded in 1992 in Barcelona, being a non-profit organization with social aims. It received public subsidies and has a hundred of partners, most of them, the main family companies of the country, which are leaders in their sectors of activity. Source: <http://www.iefamiliar.com/>

essential trainings, conferences, and courses for institutions, entrepreneurs, and experts. Moreover, the Institute of Family Business is the largest in the world in this area, composed of 37 professors, 200 university professors, and 2000 students on an average per year in Spain.

Following the report of the Institute of Family Business [11: 3] and the consensus in interviews and quantitative reports, there are several cultural elements, which differentiate the Spanish Family Businesses Institute: (1) long-term orientation, (2) commitment to the local territory, (3) entrepreneurial spirit and sense of belonging, (4) prudence and reinvestment of benefits, (5) a model of corporate governance based on trust, (6) social commitment, and (7) agility and flexibility.

Regarding the report of the Institute of Family Business [11: 26–27], *the long-term orientation* pursues the maximization of value created over generations. One relevant example of this approach is the search of employment stability, one of the European awareness platforms clearly defined in the Horizon 2020. In FBs, retaining talent and generating loyalty to family members represent a difficult task for the human resource managers. Conversely, most of the FBs keep EC stability by preserving their family links instead of searching for new candidates in the market. Obviously, this represents an opportunity cost in training and career development for new qualified candidates but on the other hand FB preserves the same team of workers, consolidating a family network [19].

The second characteristic reflected in the report of the Institute of Family Business [11: 28] is the *commitment to local territory*. The entrepreneur has the responsibility of enriching and collaborating with his community and stakeholders (suppliers, local institutions, Government, NGO's, etc.) analysing the cost-benefit of the local business and the different opportunities. In this line of reasoning, the European Commission considered the commitment to local community and the development of CSR actions for family business one strategic priority. Companies can become socially responsible not only by following the law but also by integrating social, environmental, ethical, consumer, and human rights concerns into their business strategy and operations. Recently, some authors proposed a conceptual model to analyse HRM strategies, CSR, and EC, resulting in outcomes such as labour productivity and sustainability [21]. More specifically, the authors introduced the concept of socio-emotional wealth (SEW) as one of the drivers for better performance, adjustment, and synergies among CSR, HRM, emotional capital, and sustainability [21]. SEW can be understood as '*non-financial aspects of the firm that meet the family's affective needs, such as identity, the ability to exercise family influence, and the perpetuation of the family dynasty*' [22: 106].

The third characteristic provided by the report of the Institute of Family Business [11: 29] is the *entrepreneurial spirit and the sense of belonging*. Entrepreneurial spirit and its preservation goes hand in hand with the values of the founders and is essential for the success of the FB. Another determinant factor of FBs is the sense of belonging [23]. The sense of belonging is an essential feeling in day to day in order to accomplish a successful journey and stay closer and committed to the business project [24]. Additionally, family characteristics and networks reinforce the emotional attachment [25].

The fourth important characteristic to professionals and academics developed in the report of the Institute of Family Business [11: 31] is the *prudence and the reinvestment of profits*. Entrepreneurs defined prudence as '*the assumption of risks with a certain safety margin*'. In this line of reasoning,

different studies pointed that FB leaders go beyond profitability, pursuing businesses aims such as continuity, prudence, and growth [26]. Moreover, FBs reinvest their benefits with lower risk than other organizational models, which contribute to their stability in crisis periods.

The fifth factor recognized in the report of the Institute of Family Business [11: 33] is *corporate governance based on trust*. The affective link between business owners and family members helps to generate robust corporate governance practices [27].

The sixth factor emphasized by the Institute of Family Business is *social commitment* [11: 35]. The entrepreneurs interviewed in the report insisted that they have a feeling of gratitude towards the communities where they were born. The well-being and employee satisfaction are related to the possibility to give back to society what they received from the companies they worked [28]. This feeling of gratitude is usually greater in FBs.

The seventh factor of relevance according to the Institute of FB is *agility and flexibility* [11: 39]. The structure of the company and the family control facilitate a flexible management model [29]. Additionally, due to a higher implication of family members and owners, the strategic decisions can be taken more quickly and efficiently.

Once the characteristics of family business are defined, this chapter reaches the next step: the proposal of a conceptual model, taking into consideration these characteristics along with the configurational approach of HRM.

4. Human resource management configurations in family business: preserving emotional capital through a socially responsible orientation

The configurational approach examines how the process of combining different policies and practices of human resources, with a rational orientation, helps companies achieve improvements in organizational performance [9]. These improvements are acquired due to the multiple interactions and synergies within these human resources configurations [9–30]. There is a common agreement among researchers stating that the added value of the configurational perspective lies on the alignment between human resources practices and certain organizational and strategic elements of the company [31–34]. Regarding this issue, one of the most significant theoretical manuscripts in the field is the work of Miller [35]. Miller identified several aspects that can influence the creation of configurations of human resources. These aspects include the nature of the environment in which the activities of the company take place, the strategy used by the company to operate in this environment, the organizational structure and systems, and the values and behaviour of top management teams [35].

An important theoretical aspect of the configurational perspective, related to the improvement of HRM performance, is the ‘equifinality’ principle. This principle assumes that different combinations of human resource practices can obtain the same results in terms of effectiveness for companies [36]. Accordingly, different works suggested that human resource configurations can provide wider effects than those obtained at individual level [10–37]. In this line, these configurations can create and change employee’s behaviour generating specific

organizational routines that create value, difficult to imitate and, therefore, being a source of competitive advantage.

Other empirical works emphasize the theoretical premises of the configurational approach including the influence of a third mediating or moderating variable between the ideal human resources system and the performance variable. These studies are summarized in **Table 1**.

Authors	Configuration	Dependent variable	Mediator/moderator	Findings
Dess et al. [43]	Entrepreneur configuration	Organizational performance	Strategy and environmental characteristics	Results indicate that configurational approaches aligned with entrepreneur strategies, business strategy, and environmental characteristics affect the organizational performance of the company.
Collins and Smith [44]	Commitment configuration	Organizational performance	Trust environment, cooperation, and knowledge interchange	Commitment HRM configurations are positively correlated with an increase of organizational performance, playing interaction effect aspects such as trust environment, cooperation, and knowledge interchange.
Verburg et al. [45]	Four configurations: bureaucracy, professional, market oriented, and flexible	Organizational performance	Innovation and commitment	Authors refused the hypothesis of the adjustment between ideal configurations and other contingent variables like the strategy. However, in one of the configurations, (professional-oriented) results indicate greater performance due to higher levels of innovation and commitment of employees.
Konrad et al. [46]	Four configurations of best diversity practices	Financial performance	Strategy and institutional context	Results confirmed that three of the four ideal configurations of diversity practices are effective. As the authors stated, the configurations adapted to the institutional context had better adjustment with the internal systems of companies (horizontal adjustment) and their strategies (vertical adjustment), resulting in a better performance.
Chuang et al. [47]	High-performance configurations	Satisfaction and quality perception	Supervisor support and team support	Authors found that supervisor and team support are significant variables to achieve better professional satisfaction at work and quality perception in high-performance configuration of practices. The combination of supervisor support, performance incentives, team-work philosophy, and flexible systems provides greater employee performance.

Source: Compiled by author.

Table 1. Configurational studies.

After examining several studies within the configurational approach, it is important to note that there are ideal configurations adapted to a specific number of environments. Our proposal takes into consideration an adjustment with particular elements, which possibly affect the configuration of HRM for FBs. This proposal follows the seven factors defined in the report of the Institute of Family Business [11]: (1) long-term orientation, (2) commitment to the local territory, (3) entrepreneurial spirit and sense of belonging, (4) prudence and reinvestment of benefits, (5) a model of corporate governance based on trust, (6) social commitment, and (7) agility and flexibility. **Figure 1** illustrates this process of adjustment.

Once the theoretical contribution is presented, the chapter seeks to obtain professional knowledge from practice. Regarding this issue, the HRM configuration of FB aims to preserve a valuable intangible asset such as EC. Considering that EC can be included as a dimension of social capital, *'constituting an asset in which to invest resources to future expectations, though with uncertain results'* [5: 74]. There is a natural link between EC and CSR [21]. Consequently, the development of socially responsible orientation in HRM could foster and preserve EC in companies. In order to examine the configurations and specific HRM scenarios, we selected successful Spanish FBs.

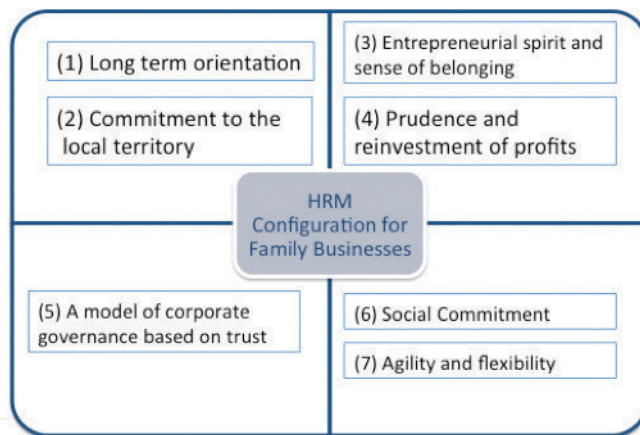


Figure 1. Factors which affect HRM Configuration for Family Businesses.

5. Methods and materials

The analysis and selection of FBs were made according to the *Global Family Business Index*, which comprise the largest 500 family firms around the globe.² The University of St Gallen delivers an interesting opportunity to view the FB scenario across the world according to

²The Global Family Business Index: The Index is compiled by the Center for Family Business at the University of St Gallen, Switzerland, in cooperation with EY's Global Family Business Center of Excellence. It provides impressive evidence of the economic power and relevance of family firms in the world. Source: <http://familybusinessindex.com/>.

the long revenue and founding year of all of the companies, as well as the sectors by colours (see **Figure 2**). In Europe, there is a great majority of FBs, which pertain to the secondary and tertiary sector, and only four European companies have been running for more than 200 years since their foundation. These details can easily be checked in the webpage provided by the University of St Gallen. Moreover, based on the definition of FBs provided in the Index, *‘For a privately held firm, a firm is classified as a family firm in case a family controls more than 50% of the voting rights. For a publicly listed firm, a firm is classified as a family firm in case the family holds at least 32% of the voting rights’* (the University of St Gallen).

Eleven companies appear within the most successful Spanish companies in the Top 500 Family Business Index. Only one of them was removed from this chapter because it appears with zero employees, and it is in process of liquidation and reconversion as a new company, and hence it is not appropriate to analyse its HRM structures. Hence, 10 companies were chosen for the analysis as **Table 2** reports.

The chapter analysed the information of these top 10 Spanish FBs in order to find common patterns in excellent HR policies and practices with a socially responsible orientation able to preserve EC. A content analysis in the annual reports of these 10 companies was made in three particular areas related with CSR: human resources, environmental issues and community [38: 216]. Specifically, we focus on the human resources area and sentences, which can be understood as synonyms or being equivalent keywords such as ‘talent’, ‘people’, and ‘human capital’. Moreover, we focus content analysis in the identification of patterns within human resource policies and practices (attraction, retention, selection, performance, appraisal, diversity, equity, etc.). Previous studies also confirm the utility of reporting in the identification of socially responsible patterns and concerns of companies [39].

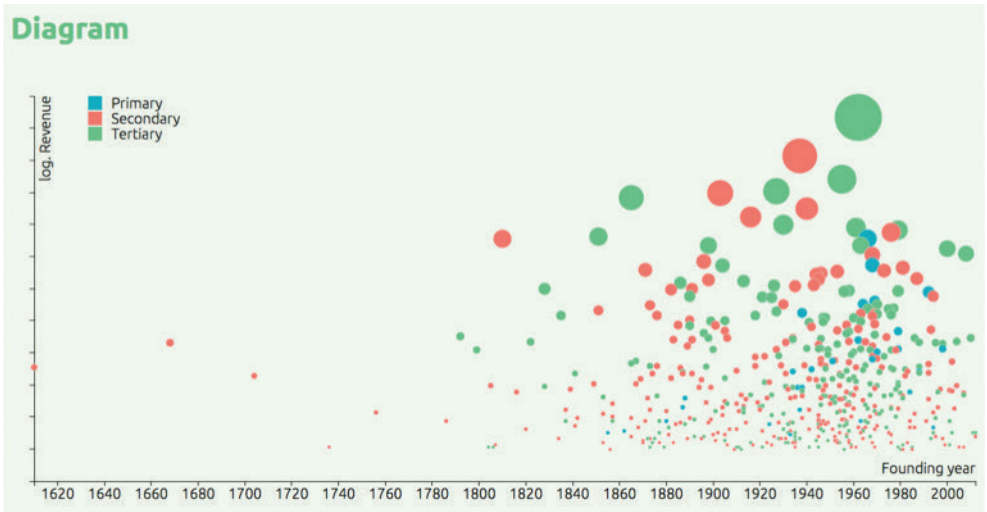


Figure 2. Family Business Scenario along the world according to long revenue and founding year.

Rank*	Company	Type	Founding year	Revenue**	Employees	Family	Share***
54	Mercadona	Private	1977	24.3	74,000	Roig family	>50.0
61	Industria de Diseno Textil SA (Inditex)	Public	1963	22.3	128,313	Ortega family	64.3
118	El Corte Ingles S.A	Private	1940	13	96,678	Areces family	75.0
142	Ferrovial S.A	Public	1952	10.8	66,098	Pino-Calvo-Sotelo family	44.8
177	Fomento de Construcciones y Contratas SA (Grupo FCC)	Public	1992	8.9	79,658	Koplowitz family	48.3
178	Acciona S.A	Public	1931	8.8	34,108	Entrecanales family	53.9
194	Corporacion Gestamp S.L	Private	1958	8	31,593	Riberas family	>50
305	Obrascon Huarte Lain SA (OHL group)	Public	1911	4.9	24,734	Villiar Mir family	44.4
394	Promotora de Informaciones S.A.	Public	1958	3.6	11,443	Polanco family	41.1
484	Grupo Antolin-Irausa S.A	Private	1959	2.8	14,800	Antolin family	100

*Rank, Ranked by revenue in US\$ billions.

**US\$ billions in 2013 or the last available year.

***Family voting rights share in %.

Source: <http://familybusinessindex.com/>, retrieved in February 2017.

Table 2. Spanish companies in the top 500 Family Business Index.

The detailed analysis of reports in HRM is presented as follows (**Table 3**).

Firstly, Mercadona specifies in its report (See Appendix I, Report II, Mercadona: 32). the relevance of the following HRM aspects: (1) a culture based on the generation of commitment through team work aimed at developing talent and strength of their members, (2) social programmes of integration by taking care of gender violence cases, (3) the increase of an economic salary base above the mean of the sector, as well as the development of a programme of economical incentives by aims, (4) an excellent performance appraisal, in which all of the employees participate from the annual profits obtained by the company, (5) work-family programmes for taking care of children, with the possibility of obtaining a childcare leave till 8 years, (6) equity programmes, (7) education as a motor drive for obtaining talent and adaptation to new professional profiles, and (8) health and safety at work audits every year.

Secondly, Inditex also includes in its report (See Appendix I, Report II, Inditex: 80-94) the identification of the following HRM priorities: (1) education and internal promotion of employees as a mechanism to foster the creativity and professional skills (attraction of talent

Family business	Sector	Description of the company	Date retrieved
I. Mercadona	Tertiary	It is a supermarket, which aims to offer the best solutions in food, personal hygiene, home care, and pets to its customers.	Annual report (2015)
II. Inditex	Tertiary	It is one of the leading fashion distributors in the world, with eight commercial formats and more than 7000 stores in five continents.	Annual report (2015)
III. El Corte Ingles S.A	Tertiary	It is a commercial and distribution group composed of companies and stores of different formats.	Annual report (2015)
IV. Ferrovial S.A	Tertiary	It is a multinational company that operates in the infrastructure sector through four divisions: highways, airports, construction, and services. It has a presence in a fortnight of countries.	Annual report (2015)
V. FCC Group	Secondary	Its basic activities are the management of environmental services and water, the construction of large infrastructures, the production of cement, urban equipment, and the generation of renewable energies.	Annual report (2015)
VI. Acciona S.A	Secondary	It is a company of promotion and management of infrastructures (water, concessions, constructions, industry, and services) and renewable energies. It has its presence in 65 countries of the five continents.	Annual report (2015)
VII. Corporacion Gestamp S.L	Secondary	It is dedicated to the stamping for automotive manufacturers, also integrating a new line of business based on renewable energies which cover the entire value chain: construction, promotion, maintenance, and operation.	CSR report (2015)
VIII. OHL group	Tertiary	It is one of the six largest business groups dedicated to construction in Spain and has more than 100 years in the sector.	Annual report (2015)
IX. PRISA	Tertiary	It is a multimedia group of communication, of radio, television, written press, and publishers located in 22 countries of Europe and America.	CSR report (2015)
X. Antolin-Irausa Group S.A	Tertiary	It is the head company of an international group, which integrates companies mainly engaged in the manufacture and marketing of automotive auxiliary materials.	Annual report (2015)

Source: compiled by the authors.

Table 3. Data retrieved for FB companies that were analysed and their descriptions.

with the programs InTalent and GoProject), (2) quality in employment through applications for employees (new technologies of information such as INet and Nhealth), (3) flexible compensation plans for employees, (4) promotion of equity, and (5) health and security concerns.

Thirdly, El Corte Ingles develops in its report (See Appendix I, Report III, El Corte Ingles: 66-74). A great concern regarding these HRM aspects: (1) the creation of effective team work, (2) the development of new professional profiles adapted to the requirements of the market, (3) internal promotion programmes aimed at developing talent, (4) recognition programmes

for employees with experience between 15 and 25 years, (5) stability programmes aimed at achieving a great number of fixed-term contracts, (6) work-family balance, (7) health and security, (8) commitment with continuous development and training for employees—new commercial trends and languages—as well as online courses, (9) the integration of diversity and equal opportunities, (10) and important social benefits aimed at taking care of children as well as providing scholarship for the studies of the employees' child.

Fourthly, Ferrovial highlights in its report (See Appendix I, Report IV, Ferrovial: 48-52) that excellent results are achieved through a committed talented workforce, showing a great concern in the following issues: (1) a great investment in education, (2) an important plan for career development, (3) the quality of leadership, (4) a collaborative culture, (5) a flexible compensation plan, (6) a detailed health and safety programme with target 0 (minimizing the number of accidents and risks) with two important projects, Safety awareness for Ferrovial Employees and Health and Safety Global Meeting, and (7) a culture of equity and non-discrimination.

In the fifth position, we examined the report of FCC (See Appendix I, Report V, FCC: 40-60), obtaining as a conclusion that the FBs have a great HRM concern in: (1) the detailed programme of health and security with standardized and labour and environmental certifications, (2) the education of their staff in all of the levels (directors, intermediate managers, employees), (3) a programme of mentoring for women, promoting the equity in all of the HRM policies, and (4) an important concern in obtaining a good collective bargaining.

In the sixth position, Acciona shows in its report (See Appendix I, Report VI, Acciona: 13) that the most important HRM concerns are (1) providing a work environment which guarantees the health and security of employees, (2) fostering the professional development, (3) Having equal-opportunities programme, and (4) having respect for the personal life of employees.

In the seventh place, Gestamp in its CSR/sustainability report (See Appendix I, Report VII, Gestamp: 70-79). Emphasized in the HRM concerns an awareness for: (1) health and safety programmes, (2) development of internal communication channels, (3) training and professional development of their workers highlighting the identification of talent, (4) a programme of equity protection for gender and disability in all the positions of the companies, and (5) a great programme of social benefits (medical insurance, food saves, childhood care practices, etc.).

In the eighth position, OHL group (See Appendix I, Report VIII, OHL group: 47-48) highlights among the strategic HRM issues the relevance of: (1) equal opportunities, (2) respectful and collaborative work environment, (3) promotion of selection of local workforce, (4) talent management, and (5) development of the activity according the highest health and safety standards.

In the ninth place, PRISA group puts emphasis in the CSR/sustainability report (See Appendix I, Report IX, PRISA group: 74) on the following HRM aims: (1) personal and professional development of workers in a respectful environment based on their skills, (2) equal opportunities and zero exclusion for all of the employees, (3) measures which facilitate the labour-family-personal life of workers, (4) continuous education and update of the training, (5) a good package of social benefits, and (6) the commitment of integrating the prevention of risks for health and security programmes.

Finally, the last position is the Antolin-Irausa Group S.A in which the report (See Appendix I, Report X, Antolin-Irausa Group S.A: 67-71) shows several HRM strategic lines: (1) talent management, retention of internal talent, and attraction of external talent, (2) internal communication as a cohesion and efficiency factor, (3) efficiency in management, (4) education as a key aspect for development of employees, and (5) Health and Safety programmes as a priority.

In conclusion, most of the Spanish top 500 FBs present similar characteristics in their HRM policies. Different authors classify the existence of socially responsible HRM polices according to CSR standards concluding that there is a great homogenization due to the new social requirements of society [40: 58] Hence, these authors validate a common socially responsible pattern, finding eight coincidences in most of the companies: (1) attraction and retention of employees, (2) training and continuous development, (3) management of employment relations, (4) communication, transparency, and social dialogue, (5) diversity and equal opportunities, (6) fair remuneration and social benefits, (7) prevention, occupational health, and safety at work, and (8) work-family balance [40]. Most of the 10 FBs examined present a great coincidence in the concern of these HRM policies or areas (see **Table 4**).

As noted before, professionals and academics work in the same direction regarding the standardization of socially responsible human resource policies and practices in order to obtain valuable outcomes. However, in practice, many companies have a unique DNA that does not match these HRM commonalities.

One of the aims of this chapter was to examine whether these policies can present effects on EC for FBs due to the potential of preserving family members as well as the difficulties in measuring this intangible aspect. Though there is no empirical evidence, other works tested socially responsible configurations of human resources and the direct effects of these policies and practices on intellectual capital [41]. The previous authors divided the intellectual capital concept into the three classical constructs, human, social, and organizational capital, obtaining some light on the

Spanish family businesses from top 500 index										
SR-HRM policies*	(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)	(IX)	(X)
Attraction and retention of employees	X	X	X	X				X	X	X
Training and continuous development	X	X	X	X	X	X	X	X	X	X
Management of employment relations		X		X	X			X		
Communication, transparency, and social dialogue	X	X	X			X	X			X
Diversity and equal opportunities	X	X	X	X	X	X	X	X	X	
Fair remuneration and social benefits	X	X	X	X			X		X	
Prevention, occupational health, and safety at work	X	X	X	X	X	X	X	X	X	X
Work-family balance	X		X			X	X		X	

*Proposal of standardization of socially responsible HRM policies by Barrena-Martinez et al. [40].
Source: own elaboration.

Table 4. Comparison of FB analysis in top 500 Index with SR-HRM theoretical proposals.

relevance of a socially responsible orientation for intellectual capital dimensions. Given the classification by Huy and Shipilov [5] which considered EC as a dimension of social capital, the study made by Barrena-Martínez et al. [41] can be considered as a possible pillar for obtaining, in future, empirical evidence about a socially responsible human resource configuration in the acquisition of EC in a sample of FB. Moreover, it is necessary to examine and understand how a configuration of socially responsible policies and practices can produce synergies and preserve EC.

6. Conclusions and implications

The theoretical proposal embedded in the chapter provides a detailed explanation of the value of the configurational approach of HRM in the analysis of FBs. Authors such as Delery and Doty [9] and Takeuchi et al. [34] emphasize that the ideal configurations of HRM cannot be extrapolated to the wide range of organizations existing in different contexts and markets.

However, according to the Institute of Family Business in Spain (2015), due to the particular characteristics of FBs, there are important academic implications and future empirical possibilities in testing this framework in a sample of Spanish FBs.

The implications of EC and CSR are also manifest in many successful Spanish FBs, though they do not pertain to the top 500 FBs. Barcelo Hotels Group, Sol Melia Hotels, Codorniu, or Santander Group are good examples. Specifically, *Banco Santander*³ is one of the most successful financial FB [42], viewing in its report some similarities with the top FB companies bank report (2015): (1) respect for diversity and non-discrimination in employment, (2) promotion of employment stability, labour flexibility, work-family balance, safety, and occupational health among professionals, (3) promotion of equal opportunities for all professionals, aiming to have a balanced representation between men and women in every role and responsibility, (4) to ensure that employees act under principles and standards of ethical and responsible conduct, serving the General Code of Conduct, and (5) encouraging corporate volunteering to contribute to the progress of the communities where the company operates and strengthens the sense of belonging among its professionals. However, the analysis made in the chapter has the limitation that all of the FBs only pertain to the secondary and tertiary sector, not having information of the primary sector which is very important in the growth of countries.

The design of HRM configurations is similar in most of these companies, which certify CSR standards such as Global Reporting Initiative or ISO 26,000, establishing a common pattern of what would be, in future, the socially responsible policies and practices for FB.

Nevertheless, any contribution has limitations that must be emphasized and corrected in future works. It was not possible to examine the emotional capital issue or how this capital affects HRM decisions in the report. The corporate governance reports of the year 2015, available in all of the webpages of the FBs, show that the people who have family links are working in the board or the most qualified positions of the company. This means that family

³Banco Santander Source: http://www.santander.com/cs/cs/Satellite/CFWCSancomQP01/en_GB/Corporate/About-The-Group.html

businesses make significant economic sacrifices to maintain their emotional capital. However, it would be necessary to carry out a quantitative research with questionnaires that would confirm this fact. However, in intermediate and low-skilled positions, we cannot see family presence in annual reports or corporate governance reports. Many of these positions in family businesses which present a giant grown as multinationals are hardly measurable in reports. Hence, in the future, it is interesting to specify in FBs what kind of economic and non-economic sacrifices allow in maintaining emotional capital. Another important line to develop is to raise a study in small family businesses, where it is possible to investigate, in more detail, the phenomenon of emotional capital and human resources decisions considering a less number of workers.

Appendix I. Annual reports retrieved

(I) Inditex annual report (2015).

<https://www.inditex.com/documents/10279/26309/Inditex+Memoria+Anual+2015+web.pdf/85484b58-03f5-4cf5-838a-029513d2edcc>

(II) Mercadona annual report (2015): <https://www.mercadona.es/document/es/memoria-anual-2015.pdf>

(III) El Corte Ingles annual report (2015):

http://sgfm.elcorteingles.es/SGFM/ECI/recursos/doc/Datos_Economicos/Memorias/2015/Espanol/291351135_510201613485.pdf

(IV) Ferrovial annual report (2015): <http://www.ferrovial.com/wp-content/uploads/2014/06/FERROVIAL-INFORME-ANUAL-INTEGRADO-CONSOLIDADO-2015.pdf>

(V) Grupo FCC annual report (2015):

<http://www.fcc.es/documents/21301/55130/Informe+Anual+2015/7febb33e-d634-4a25-a26f-913807b5b334>

(VI) Acciona annual report (2015): <http://memoria2015.acciona.com/d/informe-anual-2015.pdf>

(VII) Gestamp CSR/sustainability report (2015):

<http://www.gestamp.com/Documents/Memoria-Sostenibilidad-2015/Memoria-Sostenibilidad-2015-Gestamp.aspx?ext=.pdf>

(VIII) OHL annual report (2015):

http://www.ohlconcesiones.com/media/1295511/es_ia_2015_web.pdf

(IX) Prisa CSR/sustainability report (2015): http://www.prisa.com/informe-anual-2015/wp-includes/flip/Informe_de_Sostenibilidad_ES_PRISA/pubData/source/Informe_de_Sostenibilidad_ES_PRISA_13042015.pdf

(X) Antolin Hirausa Group report (2015):

http://www.grupoantolin.com/sites/default/files/grupo_antolin_informe_anual_2015.pdf

Santander annual report (2015):

http://www.santander.com/cs/cs/Satellite/CFWCSancomQP01/en_GB/Corporate/Shareholders-and-Investors/Financial-and-economic-information/Financial-report/Annual-Report.html

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Differences in Employee Motivation in Slovakia and Czech Republic

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Additional information is available at the end of the chapter

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Abstract

The aim of the chapter is to compare the level of employee motivation in enterprises in Slovak and the Czech Republic. Sampling unit consists of 4444 respondents from Slovakia and 2312 from the Czech Republic. Following our outcomes, we can state that the most important motivation factors are mostly identical in both countries; however, there is a slight difference in the order of their importance. Motivation factors relating to financial reward are the most important for employees in the Czech Republic. Basic salary is a motivation factor important mainly for women in Slovakia. Demands of Czech respondents are higher in motivation factors relating to interpersonal relationships. In general, we can state that, in terms of gender, needs of women are more exacting than those of men. Dependence between two categorical variables was verified using Pearson's chi-square statistics. We found out that despite big similarities in the order of importance of individual motivation factors, there are significant differences between selected motivational needs of employees in individual countries.

Keywords: motivation in the workplace, motivation factors, Slovakia, Szech Republic, motivation programme, chi-square statistics

1. Introduction

One of the key things as an employer is displaying a genuine concern and interest in the staff's progression and development within the company. High quality and carefully formulated personnel policy becomes a tool playing an essential role in enterprise competitiveness [1, 2]. Motivation system is another fundamental component of personnel policy. This system affects employees and their morale directly. Potkány and Stachová [3] stated that the motivation is connected to the issue of responsibility management with important field of business processes classification to the core business processes and supporting business

processes. Employee motivation can be seen in commitment on the job, in dealing with customers or business partners, in relationship with colleagues and socio-environmental relations. Effective motivation techniques and strategies stimulate employees to work harder, to improve work performance or to implement company mission [4]. Forasmuch enterprises have to keep quality employees working for them; they must ensure their personal development and further education. Thus, the employees become one of the essential strategic factors affecting the enterprise performance. Defining the level of employee motivation in manufacturing enterprises in Slovak and the Czech Republic and defining the significant differences are the main aims of the chapter.

Motivation is a concept important in psychology. Motivation is a complex phenomenon without even generally accepted definition [5]. It presents the fact that there are motives, momentum guiding and directing a human being. Moreover, these forces reflect in human behaviour, people are motivated and willing to do their best [6]. Motivation makes us think about acting people in certain situations. In addition, it means that there are some forces to drive, motivate us in order to achieve the better results. People are motivated; it means they will take steps in order to succeed. The goals of highly motivated people are clear with real ways of how to achieve them [7]. High persistence means that motivated persons, despite obstacles and intrigues, enjoy doing activities that really motivate them in initial direction and intention.

Moreover, the relation between motivation and performance is often oversimplified by managers. Managers commonly assume that the mentioned relation is directly proportional, that is, the higher the motivation is the higher the performance will be. Further incorrect assumption is that the performance of satisfied employee will be higher as well. Indeed, the relation is affected by various factors like abilities, skills, conditions, useful information as well as outer conditions [8]. Process of motivation is also connected with the issue of outsourcing from the point of view of reduction of company cost [9]. In general, it can be said that highly motivated employees without required abilities, skills, information or appropriate conditions are not able to achieve desired goal [10].

Motivational programmes are used to boost employee motivation. Motivational programme is a set of actions associated with managing human resources aimed at encouraging the employee behaviour in the workplace and at forming positive relation to the enterprise in active way [11]. It should be a part of personnel strategy in the enterprise [12, 13]. The main aim of the motivational programme is to strengthen the employee loyalty and to arouse the interest in self-development. It is a way of implementing incentives schemes in order to meet enterprise goals. Subsequently, success of the motivational programme relies on the familiarisation with employee needs in the enterprise [14]. Right and conducted motivational programme supports enterprise economy, motivation in the workplace, employee performance and affects job satisfaction, nevertheless.

2. Employee motivation in Slovak and the Czech Republic

Various motivation factors are introduced by Slovak enterprises in order to meet employee needs. We can mention various social programmes for employees or benefits [15]. Research

into the issue of motivation showed that the most effective benefits appreciated by employees are those leaving them to be led by their own initiative and congratulate them for doing such a great job. Further motivation factor affecting the employee performance and their satisfaction is the work environment [10]. Motivation factors relating to career growth are of great importance as well. Employees prefer working for the enterprise encouraging their personal as well as career growth. Moreover, they must feel engaged with their job and the company [15]. On the other hand, enterprises which do not stimulate their employees so they feel underthanked and underappreciated are not prioritised by employees. Following the research, we can say that good work environment, working team or corporate culture is preferred to monetary incentives by many employees [16]. Real motivation is based on human beliefs and willingness to meet company goals.

Only 20% of Czech enterprises are able to motivate their employees effectively. In addition to salaries, the most common way of rewarding staff in the Czech Republic is to provide non-monetary incentives [17]. Motivation factors such as corporate culture and its values, success, prosperity or quality can be mentioned. Atmosphere in the workplace, human relationship based on team cooperation in the enterprises as well as further education are essential motivation factors used by Czech enterprises [18, 19].

At the present time, motivation factor—stress-reduction in the workplace occur in enterprises in Slovakia as well as the Czech Republic and other European countries very often. More than half of the Europeans consider stress in the workplace as a common phenomenon. A quarter of them cope with everyday stress. Especially employees in large businesses feel worse than standard population.

3. Aim and methodology

The dependence between two categorical variables was verified using Pearson's chi-square statistics [20]. Chi-square goodness-of-fit test determine whether observed sample frequencies O_{ij} differ significantly from expected frequencies E_{ij} specified in the null hypothesis. Expected frequencies E_{ij} is a term presenting the number of observational units with the variable a_i of the attribute A and at the same time the variable b_j of the attribute B assuming that attributes A and B are independent. The formula $P(A \cap B) = P(A) \cdot P(B)$ can be used for independent phenomena A and B. Probabilities $P(A = a_i)$ and $P(B = b_j)$ will be estimated using relative frequencies:

The aim of the chapter is to define the level of importance of employee motivation factors in Slovak and the Czech Republic and subsequently, to define significant differences. Following the questionnaires carried out using random probability sampling, we analysed employee needs in both countries. Socio-demographic and qualification characteristics of employees were searched in the first part of the questionnaire [21]. Basic data about respondents related to their age, gender, seniority, education completed and job position were obtained in this part. The second part of the questionnaire was focused on the evaluation of state-of-the-art and desired state of selected motivation factors. The level of importance of motivation factors was defined using 5-point rating scale of Likert scale (5 very important, 4 important, 3 medium

important, 2 slightly important, 1 unimportant). Questionnaires were submitted to manufacturing and non-manufacturing enterprises as well as to service sector businesses. Acquired data were analysed and processed using the programme STATISTICA 12 [22].

Chi-square goodness-of fit test is one of the most commonly used nonparametric tests concerned with nominal or ordinal levels of measurement. It deals with the frequencies with which the events occur. The purpose is to test the significance of the differences between observed frequencies and the frequencies we would expect in a theoretically ideal experiment.

The chi-square test can also be used for a research project involving two traits (variables). Data are cross classified into a contingency table. The contingency table or two-way table consists of r rows and s columns given by the number of categories of investigated traits.

We need to test the null hypothesis that the two variables in question are independent against the alternative hypothesis that they are dependent. The word contingency refers to the dependence.

H_0 : two variables A and B are independent (no contingency)

H_1 : two variables A and B are dependent (contingency)

The test statistic is given by χ^2

$$\chi^2 = \sum_{i=1}^r \sum_{j=1}^s \frac{(O_{ij} - E_{ij})^2}{E_{ij}} \quad (1)$$

with degrees of freedom, $df = (\text{number of rows} - 1) \cdot (\text{number of columns} - 1) = (r - 1) \cdot (s - 1)$.

χ^2 test statistics allows us to measure the degree of disagreement between the frequencies actually observed and those that we would theoretically expect when the two variables are independent. The distribution of the test statistic χ^2 can be approximated by the chi-square distribution provided that at the most 20% expected frequencies are less than 5. For each cell in the frequency table, the expected frequency can be calculated by using the following formula:

$$E_{ij} = \frac{(\text{ith row total}) \cdot (\text{jth column total})}{(\text{grand total})} \quad (2)$$

where grand total refers to the total number of observation in the contingency table.

The dependence between two categorical variables was verified using Pearson's chi-square statistics [20]. Finally, following the table of standardised residuals (observed and expected), we state the most frequent occurrence of dependence [23].

4. Experimental section (materials and methods)

A total of 6756 employees in Slovak (4444) and in Czech (2312) enterprises participated in the research, hereof 3367 females and 3389 males. The respondents were of various ages and education, seniority or the job position. Simple random sampling technique was used to acquire data from the entire territory of the studied country. Detailed characteristic of respondents is shown in **Table 1**.

	SVK		CZ	
	Number	%	Number	%
Gender				
Female	2237	50.33	1130	48.88
Male	2207	49.67	1182	51.12
Age				
Up to 30	1052	23.67	942	40.74
31–40	1398	31.46	592	25.61
41–50	1213	27.30	464	20.07
51+	781	17.57	314	13.58
Seniority				
Less than 1 year	430	9.68	392	16.96
1–3 years	890	20.03	600	25.95
4–6 years	924	20.79	474	20.50
7–9 years	730	16.43	324	14.01
10 years and more	1470	33.08	522	22.58
Education				
Primary school	125	2.81	108	4.67
Lower secondary education	865	19.46	370	16.00
Upper secondary education	2414	54.32	964	41.70
Higher education	1040	23.40	870	37.63
Job position				
Manager	428	9.63	478	20.67
Blue collar worker	2791	62.80	1096	47.40
White collar worker	1225	27.57	738	31.92
Source: own data processing.				

Table 1. The total number of respondents and their characteristics.

Following the research, we defined motivation factors in analysed countries (**Table 2**). Finally, we can state that the most important motivation factors in Slovak and the Czech Republic are mostly identical. A slight difference can be seen in the order of their importance. Mentioned motivation factors are as follows: basic salary (30), good work team (2), atmosphere in the workplace (1), supervisor's approach (17) and job security (5).

We studied statistically significant dependence between nationality and the motivation factor as well as between gender and the motivation factor. Using the descriptive statistics, we found out the values of frequency distribution of six of the most important motivation factors.

Employees in enterprises in Slovakia			Employees in enterprises in the Czech Republic		
S.N.	Motivation factor	%	S.N.	Motivation factor	%
1	Basic salary	4.44	1	Basic salary	4.59
2	Good work team	4.39	2	Atmosphere in the workplace	4.46
3	Atmosphere in the workplace	4.38	3	Good work team	4.44
4	Supervisor's approach	4.38	4	Supervisor's approach	4.40
5	Job security	4.37	5	Fair appraisal system	4.40
6	Fair appraisal system	4.37	6	Job security	4.39
7	Fringe benefits	4.31	7	Communication in the workplace	4.29
8	Communication in the workplace	4.24	8	Occupational safety	4.29
9	Working time	4.17	9	Fringe benefits	4.27
10	Work environment	4.15	10	Recognition	4.15
11	Recognition	4.12	11	Workload and type of work	4.13
12	Job performance	4.11	12	Opportunity to apply one's own ability	4.10
13	Workload and type of work	4.09	13	Working time	4.10
14	Social benefits	4.08	14	Work environment	4.09
15	Free time	4.07	15	Free time	4.05
16	Occupational safety	4.06	16	Self-actualisation	4.03
17	Education and personal growth	4.03	17	Job performance	3.98
18	Mental effort	4.01	18	Education and personal growth	3.98
19	Opportunity to apply one's own ability	4.00	19	Self-actualisation	3.96
20	Individual decision-making	3.98	20	Information about performance result	3.94
21	Career advancement	3.98	21	Mental effort	3.93
22	Self-actualisation	3.94	22	Social benefits	3.92
23	Information about performance result	3.91	23	Career advancement	3.90
24	Relation to the environment	3.90	24	Competences	3.73
25	Competences	3.86	25	Mission of the company	3.68
26	Name of the company	3.85	26	Relation to the environment	3.68
27	Mission of the company	3.85	27	Physical effort at work	3.66
28	Region's development	3.80	28	Prestige	3.66
29	Physical effort at work	3.77	29	Name of the company	3.57
30	Prestige	3.68	30	Region's development	3.54

Source: own data processing.

Table 2. Order of motivation factors according to their importance in Slovakia and the Czech Republic.

They are shown in graph describing the interactions. Dependence between categorical variables—motivation factor and nationality as well as motivation factor and gender of respondents in Slovakia and in the Czech Republic was tested using inferential statistics, mainly Pearson’s chi-square test.

4.1. Motivation factor: basic salary

Following the completed questionnaires, we found out that 63.25% of Slovak respondents consider the motivation factor basic salary (30) very important. Czech respondents consider mentioned motivation factor very important as well. For 69.46% of Czech respondents, it was at level 5 of the rating scale (**Table 3**).

Following the results of Pearson’s chi-square test, we state that there is statistically significant relationship between these two categorical variables. Evaluation of motivation factor basic salary is affected by nationality (**Table 4**). Null hypothesis H_0 is, in the case of motivation factor basic salary (30), rejected ($p = 0.000$) in favour of the alternative hypothesis H_1 at the level of significance $\alpha = 5\%$.

Number of workplaces in Slovakia is lower than in the Czech Republic, therefore it is hard to get hired. That is also the reason why the motivation factor basic salary is not as important for Slovak employees as for the Czech ones. Salary requirements of Slovak employees are not so high and they are willing to accept lower basic salary as well. Following the table of standardised residuals and the largest absolute differences of expected and observed

	Motivation factor basic salary					Together
	1	2	3	4	5	
SVK	73	117	382	1062	2810	4444
%	1.64	2.63	8.60	23.90	63.23	100.00
CZ	20	34	112	540	1606	2312
%	0.87	1.47	4.84	23.36	69.46	100.00
Together	93	151	494	1,602	4,416	6,756
%	1.38%	2.24%	7.31%	23.71%	65.36%	100.00%

Source: own data processing.

Table 3. Contingency table relating to motivation factor basic salary in SVK and CZ.

Motivation factor	χ^2	sv	p
Basic salary	30.89	df = 4	p = 0.000

Source: own data processing.

Table 4. Nationality versus motivation factor.

frequencies (**Table 5**), we can state that Slovak respondents give a rating at level 3 more often than employees in the Czech Republic and at level 5 less often in comparison to the Czech employees.

Subsequently, statistically significant relationship between the motivation factor basic salary and the gender in Slovakia and in the Czech Republic was tested. Following the responses, we found out that 61.92% of males and 64.55% of females in Slovakia consider the motivation factor basic salary (30) very important and it is at level 5 of the rating scale (**Table 6**, **Figure 1**).

There is no statistically significant relationship between the motivation factor basic salary and gender in Slovakia. The null hypothesis H_0 ($p = 0.138$) is accepted at the level of significance $\alpha = 5\%$ (**Table 7**).

On the other hand in the Czech Republic, 70.22% of males consider the motivation factor basic salary very important and 68.67% of females gave a rating at level 5, it means it is very important for them (**Table 8**, **Figure 2**).

Null hypothesis H_0 relating to the motivation factor basic salary is accepted and alternative hypothesis H_1 is rejected following the result of p-value ($p = 0.870$). There is no statistically significant relationship between gender in the Czech Republic and the mentioned motivation factor as well (**Table 9**).

Country	Motivation factor basic salary					Together
	1	2	3	4	5	
SVK	7	11	34	5	-57	0
CZ	-7	-11	-34	-5	57	0
Together	0	0	0	0	0	0

Source: own data processing.

Table 5. Standardised residuals relating to motivation factors: basic salary in SVK and CZ.

Gender Slovak Republic	Motivation factor basic salary					Together
	1	2	3	4	5	
Males SVK	32	61	209	537	1366	2207
%	1.45	2.77	9.48	24.35	61.95	100.00
Females SVK	40	56	173	525	1445	2237
%	1.79	2.50	7.73	23.45	64.54	100.00
Together SVK	72	117	382	1062	2810	4444

Source: own data processing.

Table 6. Contingency table relating to motivation factor basic salary in SVK.

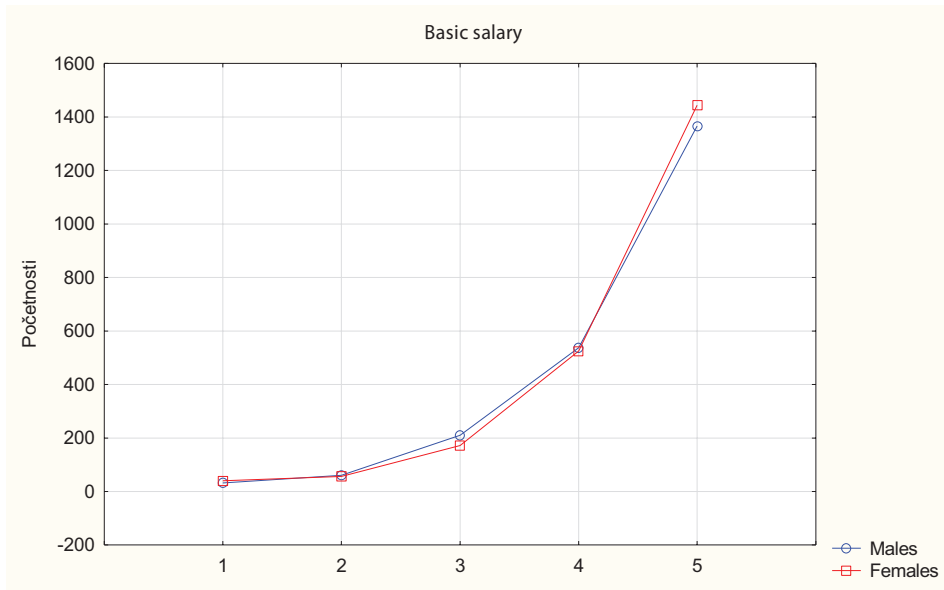


Figure 1. Graph of interactions relating to motivation factor basic salary in SVK (Source: own data processing).

Motivation factor	χ^2	sv	p
Basic salary	6.97	df = 4	p = 0.138

Source: own data processing.

Table 7. Gender in Slovakia versus motivation factor basic salary.

Gender	Motivation factor basic salary					Together
	1	2	3	4	5	
Males CZ	10	20	60	262	830	1182
%	0.85	1.69	5.08	22.17	70.22	100.00
Females CZ	10	14	52	278	776	1130
%	0.88	1.24	4.60	24.60	68.67	100.00
Together CZ	20	34	112	540	1606	2312
%	0.86	1.47	4.84	23.36	69.46	100.00

Source: own data processing.

Table 8. Contingency table relating to motivation factor basic salary in CZ.

4.2. Motivation factor: good work team

Motivation factor good work team is considered by 55.31% of Slovak respondents very important, they give a rating at level 5 and 32.76% of Slovak respondents consider it important, it means they give a rating at level 4. In the Czech Republic, 57.35% of respondents consider it very important, rating at level 5, and 32.53% gave a rating at level 4 (Table 10).

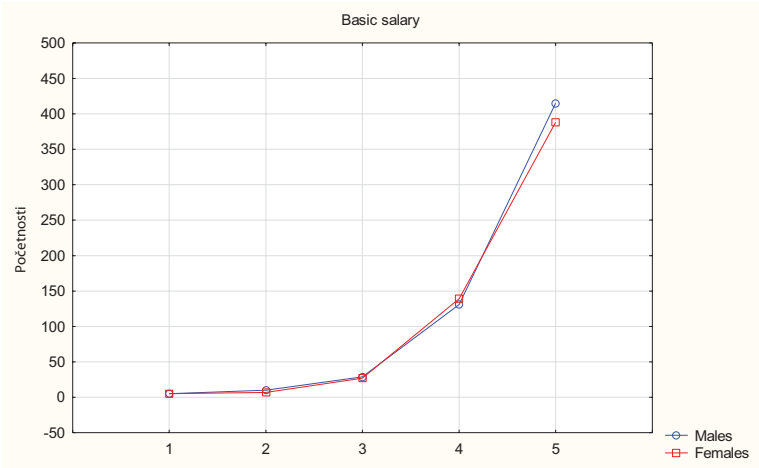


Figure 2. Graph of interactions relating to motivation factor basic salary in CZ (Source: own data processing).

Motivation factor	χ^2	sv	p
Basic salary	1.25	df = 4	p = 0.870

Source: own data processing.

Table 9. Gender in CZ versus motivation factor basic salary.

Country	Motivation factor good work team					Together
	1	2	3	4	5	
SVK	39	96	395	1456	2458	4444
%	0.88	2.16	8.89	32.76	55.31	100
CZ	12	42	180	752	1326	2312
%	0.52	1.82	7.79	32.53	57.35	100
Together	51	138	575	2208	3784	6756
%	0.75	2.04	8.51	32.68	56.01	100

Source: own data processing.

Table 10. Contingency table relating to the motivation factor good work team in SVK and CZ.

Following the results of p-value ($p = 0.409$), which is greater than the level of significance $\alpha = 5\%$, we can state that there is no statistically significant relationship between nationality and the motivation factor good work team (2). Null hypothesis H_0 is accepted (**Table 11**).

Statistically significant relationship is studied also between mentioned motivation factor and gender in Slovakia and the Czech Republic. Following **Table 12**, we can state that the motivation factor good work team is considered very important by 53.78% of males in Slovakia and 32.90% of males consider it important. 56.82% of females consider it very important too; therefore, they gave the rating at level 5. 32.63% of females evaluate the motivation factor good working team at level 4 – important (**Figure 3**).

Motivation factor	χ^2	sv	p
Good work team	3.98	df = 4	$p = 0.409$

Source: own data processing.

Table 11. Nationality versus motivation factor.

Gender SVK	Motivation factor good work team					
	1	2	3	4	5	Together
Males	28	53	213	726	1187	2207
%	1.27	2.40	9.65	32.90	53.78	100.00
Females	11	43	182	730	1271	2237
%	0.49	1.92	8.14	32.63	56.82	100.00
Together	39	96	395	1456	2458	4444

Source: own data processing.

Table 12. Contingency table relating to the motivation factor good work team in SVK.

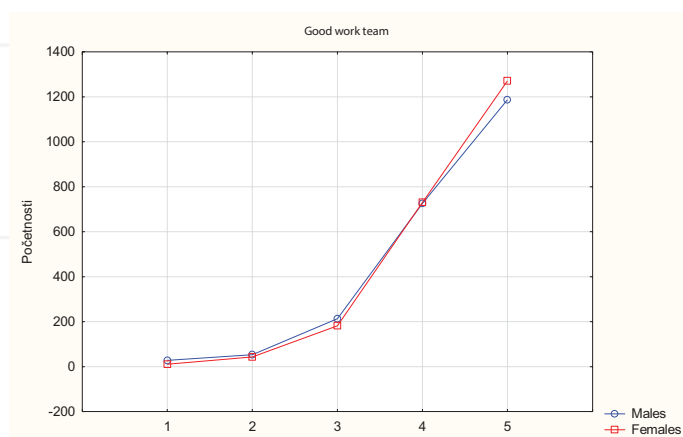


Figure 3. Graph of interactions relating to motivation factor good work team in SVK (Source: own data processing).

As **Table 13** shows, there is a statistically significant relationship between the motivation factor good work team and gender in Slovakia. Following the result of p-value ($p = 0.008$), that is less than the level of significance $\alpha = 5\%$, the null hypothesis H_0 is rejected and alternative hypothesis H_1 is accepted. The motivation factor good work team is affected by gender in Slovakia.

Working in an effective team can make a significant contribution to job performance improvement as well as to less stress in the workplace. Good relationships in the workplace are an essential factor especially for women. Women have to quit their job more often because of family problems. Mentioned motivation factor is not considered important by men and they are not affected by interpersonal relationships as much as women. That is why, as the table of standardised residuals and the largest absolute differences of expected and observed frequencies (**Table 14**) shows, women give a rating at level 5 and men only at level 3.

In the Czech Republic as well as in Slovakia, 54.82% of males consider the motivation factor good work team very important, level 5 of the rating scale (**Table 15**). 60.00% of Czech females evaluate the mentioned motivation factor in similar way. They give a rating at level 5—very important (**Figure 4**).

Following the results of Pearson’s chi-square test, we state that there is no statistically significant relationship between the motivation factor good work team and gender in the Czech Republic. P-value ($p = 0.077$) is greater than the level of significance $\alpha = 5\%$. The motivation factor good work team is not as affected by gender in the Czech Republic as in Slovakia (**Table 16**).

4.3. Motivation factor: atmosphere in the workplace

Table 17 shows that 53.87% of Slovak employees consider the motivation factor atmosphere in the workplace very important and 33.19% think it is important. Similarly, Czech employees, 59.08% of them, consider it very important and 32.22% give a rating at level 4—important.

Motivation factor	χ^2	sv	p
Good work team	13.56	df = 4	p = 0.008
Source: own data processing.			

Table 13. Gender in Slovakia versus motivation factor good work team in SVK.

Gender in SVK	Motivation factor good work team					Together
	1	2	3	4	5	
Males	9	5	17	3	−34	0
Females	−9	−5	−17	−3	34	0
Together	0	0	0	0	0	0

Source: own data processing.

Table 14. Standardised residuals relating to motivation factors good work team in SVK.

Gender in CZ	Motivation factor good work team					Together
	1	2	3	4	5	
Males	6	14	112	402	648	1182
%	0.51	1.18	9.48	34.01	54.82	100.00
Females	6	28	68	350	678	1130
%	0.53	2.48	6.02	30.97	60.00	100.00
Together	12	42	180	752	1326	1156

Source: own data processing.

Table 15. Contingency table relating to the motivation factor good work team in CZ.

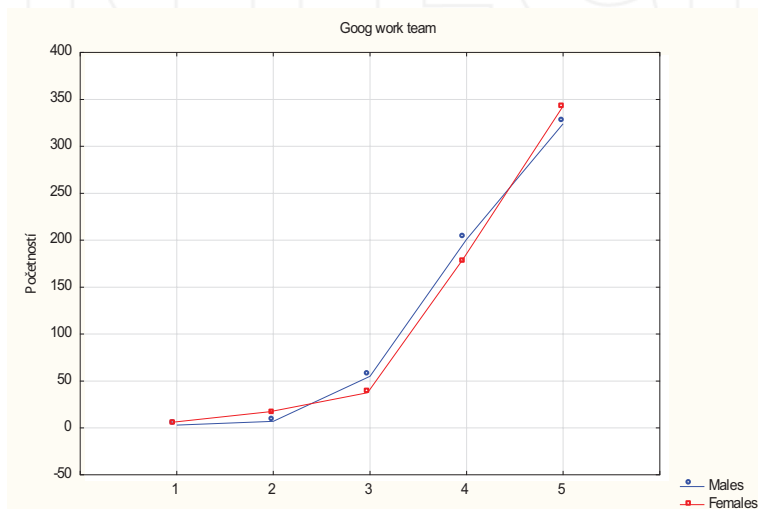


Figure 4. Graph of interactions relating to the motivation factor good work team in CZ (Source: own data processing).

Motivation factor	χ^2	sv	p
Good work team	8.42	df = 4	p = 0.077

Source: own data processing.

Table 16. Gender in CZ versus motivation factor – results of Pearson’s chi-square test.

Statistically significant relationship between the motivation factor atmosphere in the workplace and nationality is confirmed by the p-value. Forasmuch as $p = 0.023$ is less than the level of significance $\alpha = 5\%$, the null hypothesis H_0 is rejected in favour of the alternative hypothesis H_1 ; it means there is a statistically significant relationship between countries and the motivation factor atmosphere in the workplace (**Table 18**).

Employee performance is affected by the atmosphere in the workplace to a large extent. Friendly and positive atmosphere at work can increase job performance. On the other hand, the negative atmosphere can result in low-quality performance of employees. The range of jobs provided in Slovak job market is not as wide as in the Czech Republic; therefore, Slovak employees are willing to work also in hostile work environment and the mentioned motivation factor is not so important for them as well (**Table 19**). We state that the motivation factor atmosphere in the workplace is evaluated by Slovak employees at level 4 and 5—important and very important. Mentioned motivation factor is evaluated in the Czech Republic at level 5—very important, more frequently (**Table 20, Figure 5**).

Country	Motivation factor atmosphere in the workplace					Together
	1	2	3	4	5	
SVK	33	65	477	1,475	2,394	4,444
%	0.74	1.46	10.73	33.19	53.87	100.00
CZ	18	28	198	702	1366	1156
%	0.78	1.21	8.56	30.36	59.08	100.00
Together	42	79	575	1826	3077	5600
%	0.75	1.38	9.99	32.22	55.65	100.00

Source: own data processing.

Table 17. Contingency table relating to the motivation factor atmosphere in the workplace in SVK and CZ.

Motivation factor	χ^2	sv	P
Atmosphere in the workplace	11.33	df = 4	p = 0.023

Source: own data processing.

Table 18. Nationality versus motivation factor—results of Pearson's chi-square test in SVK and CZ.

Gender in Slovakia	Motivation factor atmosphere in the workplace					Together
	1	2	3	4	5	
Males	18	41	267	794	1087	2207
%	0.82	1.86	12.10	35.98	49.25	100.00
Females	15	24	209	681	1308	2237
%	0.67	1.07	9.34	30.44	58.47	100.00
Together	33	65	476	1475	2394	4444

Source: own data processing.

Table 19. Standardised residuals relating to the motivation factor atmosphere in the workplace in SVK and CZ.

Subsequently, significantly important relationship between the motivation factor atmosphere in the workplace and gender in Slovakia and the Czech Republic was studied. Following the questionnaire responses, we found out that 49.25% of males and 58.47% of females consider this motivation factor very important—level 5 of the rating scale.

There is a statistically significant relationship between the motivation factor atmosphere in the workplace and gender in Slovakia. Following the p-value ($p = 0.000$) at the level of significance $\alpha = 5\%$, the null hypothesis H_0 is rejected and the relative hypothesis H_1 is accepted (**Table 21**).

Country	Motivation factor atmosphere in the workplace					Together
	1	2	3	4	5	
SVK	0	2	19	26	47	94
CZ	0	2	19	26	47	94
Together	0	4	38	52	94	188

Source: own data processing.

Table 20. Contingency table relating to motivation factor atmosphere in the workplace in SVK.

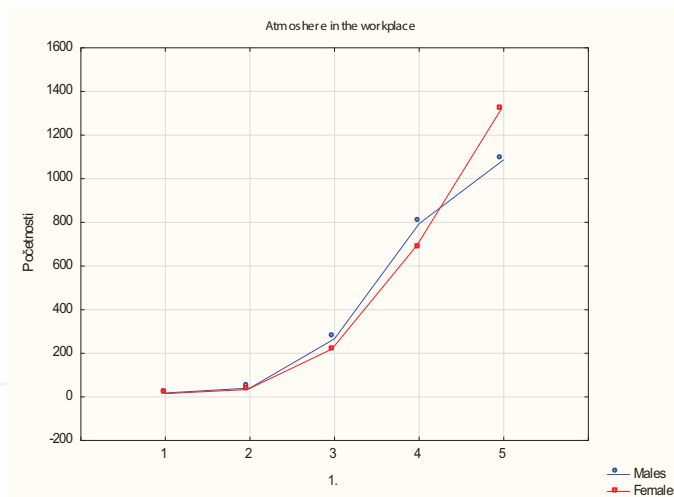


Figure 5. Graph of interactions relating to the motivation factor atmosphere in the workplace in SVK (Source: own data processing).

Motivation factor	χ^2	sv	p
Atmosphere in the workplace	40.58	df = 4	$p = 0.000$

Source: own data processing.

Table 21. Gender in SVK versus motivation factor—results of Pearson's chi-square test.

This motivation factor is connected to the motivation factor good work team. Friendly and accommodating staff guarantees the friendly and welcoming atmosphere in the workplace. A hostile work environment is created by a boss or co-worker whose actions, communication or behaviour makes doing your job impossible. Therefore, this motivation factor is considered very important especially by women. In comparison to men, it is difficult to work for them in this kind of the environment. Women are more sensitive and are affected by negative workplace atmosphere more often than men. Men can handle problems in the workplace more effectively; that is why they give a rating at level 3 and they consider this motivation factor neutral (**Table 22**).

Following the questionnaire responses in the Czech Republic, we can state that 56.85% of males and 61.42% of females consider the motivation factor atmosphere in the workplace very important—level 5 of the rating scale (**Table 23, Figure 6**). Statistically significant relationship between the motivation factor and gender in the Czech Republic is rejected ($p = 0.359$). Null hypothesis H_0 is accepted; it means atmosphere in the workplace is not affected by gender in the Czech Republic in contrast to gender in Slovakia (**Table 24**).

4.4. Motivation factor: supervisor’s approach

Table 25 shows that the motivation factor supervisor’s approach is considered very important by 55.87% of Slovak employees; they give a rating at level 5. 30.81% of Slovak employees consider the motivation factor important, level 4 of the rating scale. The opinion of Czech employees is almost the same, 54.67% of them consider the motivation factor supervisor’s

Gender in SVK	Motivation factor atmosphere in the workplace					
	1	2	3	4	5	Together
Males	9	5	17	3	−34	0
Females	−9	−5	−17	−3	34	0
Together	0	0	0	0	0	0

Source: own data processing.

Table 22. Standardised residuals relating to the motivation factors atmosphere in the workplace in SVK.

Gender in CZ	Motivation factor atmosphere in the workplace					
	1.	2.	3.	4	5	Together
Males	6	8	58	182	336	1182
%	1.02	1.35	9.88	30.80	56.85	100.00
Females	3	6	41	169	347	1,130
%	0.53	1.06	7.08	29.91	61.42	100.00
Together	9	14	99	351	683	2312

Source: own data processing.

Table 23. Contingency table relating to the motivation factor atmosphere in the workplace in CZ.

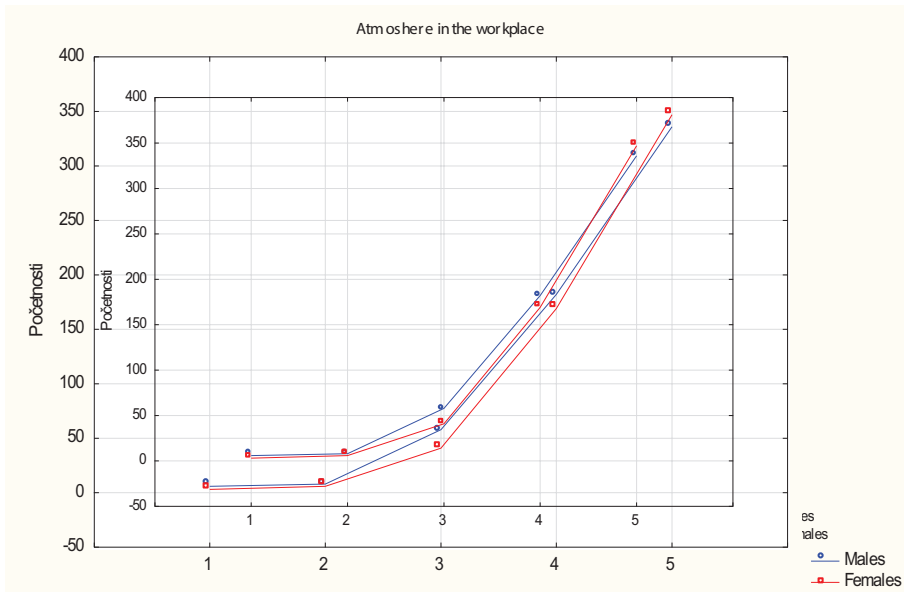


Figure 6. Graph of interactions relating to the motivation factor atmosphere in the workplace in CZ (Source: own data processing).

Motivation factor	χ^2	sv	p
Atmosphere in the workplace	4.37	df = 4	p = 0.359

Source: own data processing.

Table 24. Gender in CZ versus motivation factor: results of Pearson's chi-square test.

Country	Motivation factor supervisor's approach					Together
	1.	2.	3.	4.	5.	
SVK	32	137	423	1369	2483	4444
%	0.72	3.08	9.52	30.81	55.87	
CZ	20	38	212	778	1,264	2,312
%	0.87	1.64	9.17	33.65	54.67	
Together	52	175	635	2147	3747	6756
%	0.77	2.59	9.40	31.78	55.46	100.00

Source: own data processing.

Table 25. Contingency table relating to the motivation factor supervisor's approach in SVK a CZ.

approach very important and they give a rating at level 5. 33.65% of Czech employees think it is important, level 4 of the rating scale.

A statistically significant relationship was observed between the motivation factor supervisor’s approach and nationality. Forasmuch p-value ($p = 0.044$) is less than the level of significance $\alpha = 5\%$, null hypothesis H_0 is rejected and the H_1 is accepted. There is statistically significant relationship between these categorical variables. Evaluation of motivation factor supervisor’s approach is affected by nationality (**Table 26**).

The motivation factor supervisor’s approach is considered even slightly important by Slovak employees. The Slovaks have more difficulties with finding a job on the labour market than the Czechs; therefore, the mentioned motivation factor is not appreciated by them. They would prefer incompetence or bad management rather than be sacked from the job. In contrast to the Slovak employees, employees in the Czech Republic consider the motivation factor supervisor’s approach important. In case of bad management, they prefer to change their job.

Contingency table (**Table 28**) shows that Slovak employees evaluate the motivation factor at level 2; it means it is slightly important for them. On the other hand, employees in the Czech Republic consider it important; they evaluate it at level 4 of the rating scale.

Statistically significant relationship was studied also between the motivation factor supervisor’s approach and gender in Slovakia and the Czech Republic. As **Table 27** shows, 52.02% of males in Slovakia evaluated the motivation factor supervisor’s approach at level 5 and 32.99% of males gave a rating at level 4. 59.68% of females considered mentioned motivation factor very important, level 5 of the rating scale and 28.65% of females in Slovakia evaluated it at level 4 (**Figure 7**).

Motivation factor	χ^2	sv	p
Supervisor’s approach	9.80	df = 4	p = 0.044

Source: own data processing.

Table 26. Nationality versus motivation factor—results of Pearson’s chi-square test in SVK and CZ.

Gender in SVK	Motivation factor supervisor’s approach					Together
	1	2	3	4	5	
Males	18	70	243	728	1148	2207
%	0.82	3.17	11.01	32.99	52.02	100.00
Females	14	67	180	641	1335	2237
%	0.63	3.00	8.05	28.65	59.68	100.00
Together	32	137	423	1369	2483	4444

Source: own data processing.

Table 27. Contingency table relating to the motivation factor supervisor’s approach in SVK.

Country	Motivation factor supervisor's approach					Together
	1	2	3	4	5	
SVK	-1	13	3	-26	11	0
CZ	1	-13	-3	26	-11	0
Together	0	0	0	0	0	0

Source: own data processing.

Table 28. Standardised residuals relating to the motivation factors supervisor's approach in SVK a CZ.

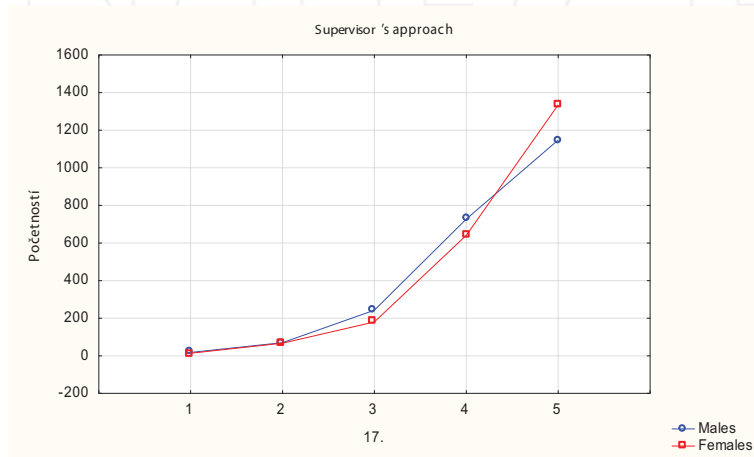


Figure 7. Graph of interactions relating to the motivation factor supervisor's approach in SVK (Source: own data processing).

There is a statistically significant relationship between the motivation factor supervisor's approach and gender in Slovakia because p-value ($p = 0.000$) is less than the level of significance $\alpha = 5\%$ (**Table 29**). Following the outcome, the null hypothesis H_0 is rejected in favour of the relative hypothesis H_1 .

Supervisor's approach plays an essential role in the enterprise. Supervisors must be able to harmonise the demands of management, the demands of the collective work force, and the demands of workers with the requirements for doing the tasks at hand. Happy and contented employees fulfilling their desires and needs at work can work harder and it results in increasing job performance in comparison to employees dealing with stress and pressure in the workplace. Following **Table 30**, we observe that females are affected by these factors more than males. Therefore, females gave a rating at level 5. Males evaluate the motivation factor supervisor's approach at level 3 or 4, it means it is medium important or important for them.

Following the questionnaire responses, we state that 48.39% of males in the Czech Republic consider the motivation factor supervisor's approach very important and 37.73%

of them important. 61.24% of females in the Czech Republic consider the motivation factor very important and 29.38% of females evaluate it at level 4 of the rating scale (**Table 31, Figure 8**).

Gender in Slovakia as well as in the Czech Republic affects the motivation factor supervisor's approach (17). Forasmuch p-value ($p = 0.000$) is less than the significance level $\alpha = 5\%$, null hypothesis H_0 is rejected in favour of the relative hypothesis H_1 (**Table 32**).

Females in the Czech Republic insist on the supervisor's approach. They expect professional behaviour of supervisors, efforts to meet their needs and to create positive work environment. Forasmuch as these factors are considered very important by females in the Czech Republic, they give a rating at level 5. Males do not consider mentioned motivation factor so important, they give a rating at level 3 as shown in **Table 33**.

Motivation factor	χ^2	sv	p
Supervisor's approach	29.41	df = 4	$p = 0.000$

Source: own data processing.

Table 29. Gender in SVK versus motivation factor: results of Pearson's chi-square test.

Gender in SVK	Motivation factors supervisor's approach					
	1.	2.	3.	4.	5.	Together
Males	2	2	33	48	-85	0
Females	-2	-2	-33	-48	85	0
Together	0	0	0	0	0	0

Source: own data processing.

Table 30. Standardised residuals relating to the motivation factors supervisor's approach in SVK.

Gender in CZ	Motivation factor supervisor's approach					
	1	2	3	4	5	Together
Males	10	30	124	446	572	1180
%	0.85	2.54	10.49	37.73	48.39	100.00
Females	10	8	88	332	692	1132
%	0.88	0.71	7.79	29.38	61.24	100.00
Together	20	38	212	778	1264	2312

Source: own data processing.

Table 31. Contingency table relating to the motivation factor: supervisor's approach in CZ.

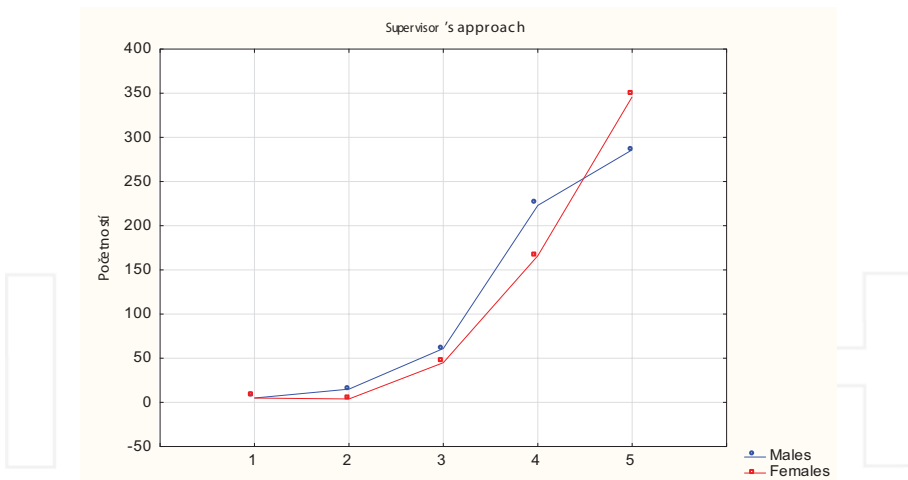


Figure 8. Graph of interactions relating to the motivation factor supervisor's approach in CZ (Source: own data processing).

Motivation factor	χ^2	sv	p
Supervisor's approach	22.34	df = 4	p = 0.000

Source: own -data processing.

Table 32. Gender in CZ versus motivation factor: results of Pearson's chi-square test.

Gender in CZ	Motivation factors supervisor's approach					Together
	1	2	3	4	5	
Males	0	5	7	24	-37	0
Females	0	-5	-7	-24	37	0
Together	0	0	0	0	0	0

Source: own data processing.

Table 33. Standardised residuals relating to the motivation factors supervisor's approach in CZ.

4.5. Motivation factor: job security

Following the questionnaire responses, we found out that the motivation factor job security is evaluated by 56.66% of Slovak employees and 57.01% of Czech employees at level 5 of the rating scale—very important.

Following the p-value, statistically significant relationship between the motivation factor job security and nationality can be stated. Forasmuch as $p = 0.679$, it means it is greater than the

level of significance $\alpha = 5\%$, null hypothesis is accepted H_0 . There is no significant relationship between the motivation factor job security and the country (**Table 34**).

Statistically significant relationship was observed also between the motivation factor job security and gender in Slovakia and the Czech Republic. **Table 35** shows that 55.64% of males and 57.67% of females in Slovakia consider the motivation factor job security very important, they give a rating at level 5.

Table 36 shows that the motivation factor supervisor’s approach is considered very important by 56.66% of Slovak employees, they give a rating at level 5. 28.42% of Slovak employees consider the motivation factor important, level 4 of the rating scale. The opinion of Czech employees is almost the same, 57.01% of them consider the motivation factor supervisor’s approach very important and they give a rating at level 5. 28.46% of Czech employees think it is important, level 4 of the rating scale (**Figure 9**).

Statistically significant relationship can be seen also between the motivation factor job security and gender in Slovakia. Null hypothesis H_0 relating this motivation factor is rejected ($p = 0.009$) in favour of the relative hypothesis H_1 . Gender in Slovakia affects the motivation factor job security (**Table 37**).

Job security is a factor contributing to job satisfaction. Dealing with the lack of job security can be stressful and employees are willing to accept it only for a short term or when they can enjoy other advantages such as benefits. It is common that many managers are not aware of the aspect that in order to meet security needs, they have to provide employee engagement strategies and enable people to be the best they can at work. Especially working mothers, who are the main need to have more reliable and secure job. Following the table of standardised residuals (**Table 38**), we state that the motivation factor is evaluated at level 3—medium

Motivation factor	χ^2	sv	p
Job security	2.31	df = 4	p = 0.679

Source: own data processing.

Table 34. Contingency table relating to the motivation factor: job security in SVK and CZ.

Gender in SVK	Motivation factor job security					Together
	1	2	3	4	5	
Males	21	53	286	619	1228	2207
%	0.95	2.40	12.96	28.05	55.64	
Females	21	67	215	644	1290	2237
%	0.94	3.00	9.61	28.79	57.67	
Together	42	120	501	1263	2518	4444

Source: own data processing.

Table 35. Nationality versus motivation factor: results of Pearson’s chi-square test.

Gender	Motivation factor job security					Together
	1	2	3	4	5	
SVK	42	120	501	1263	2518	4444
%	0.95	2.70	11.27	28.42	56.66	
CZ	18	46	272	658	1318	2312
%	0.78	1.99	11.76	28.46	57.01	
Together	60	166	773	1921	3836	5600
%	0.89	2.46	11.44	28.43	56.78	100.00

Source: own data processing.

Table 36. Contingency table relating to the motivation factor: job security.

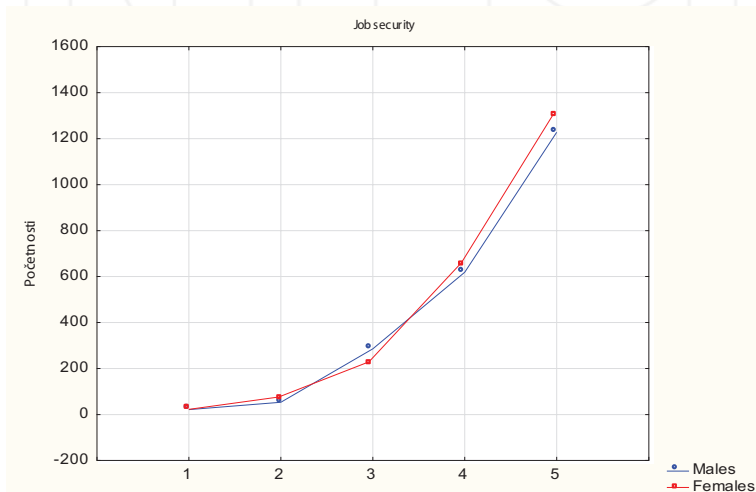


Figure 9. Graph of interactions relating to the motivation factors job security in SVK (Source: own data processing).

Motivation factor	χ^2	sv	p
Job security	13.55	df = 4	p = 0.009

Source: own data processing.

Table 37. Gender in SVK versus motivation factor: results of Pearson's chi-square test.

important. On the other hand, women evaluate this motivation factor at level 5 of the rating scale—very important.

The motivation factor job security is evaluated by 57.19% of males and 56.81% of females in the Czech Republic at level 5 of the rating scale; it means they consider it very important (Table 39, Figure 10).

Gender in SVK	Motivation factors job security					Together
	1	2	3	4	5	
Males	0	-7	37	-8	-23	0
Females	0	7	-37	8	23	0
Together	0	0	0	0	0	0

(Source: own data processing)

Table 38. Standardised residuals relating to the motivation factors job security in SVK.

Gender in CZ	Motivation factor job security					Together
	1.	2.	3.	4	5	
Males	12	22	148	324	676	1182
%	1.02	1.86	12.52	27.41	57.19	
Females	6	24	124	334	642	1130
%	0.53	2.12	10.97	29.56	56.81	
Together	18	46	272	658	1,318	2,312

Source: own data processing.

Table 39. Contingency table relating to the motivation factor: job security in CZ.

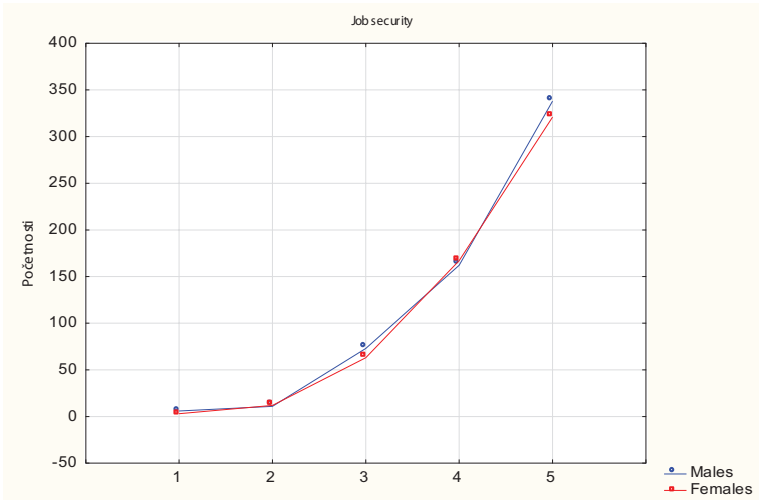


Figure 10. Graph of interactions relating to the motivation factor job security in CZ (Source: own data processing).

There is no statistically significant relationship between the motivation factor job security and gender in the Czech Republic. Following the result of p-value ($p = 0.773$), null hypothesis H_0 is accepted (Table 40).

Motivation factor	χ^2	sv	p
Job security	1.80	df = 4	p = 0.773

Source: own data processing.

Table 40. Gender in CZ versus motivation factor: results of Pearson's chi-square test.

5. Discussion and conclusion

There are different ways to keep employees motivated. Feeling valued creates a deeper level of trust and security at work, which frees employees to spend less energy seeking and defending the value, and more energy creating it. Factors of employee motivation have to be understood as a complex mutually influenced aspect. Some of them are appreciated by staff more than others. Their importance is not permanent but it changes in dependence of meeting the needs. In general, making big money is often less important to employees than satisfying these needs—to feel proud, to be treated fairly, to respect the boss, to be heard out, to have personal life, to have less stress or to beat competition. Corporate culture, atmosphere in the workplace or remuneration and benefits provided by companies are usually more important for employees than monetary incentives [24, 25]. If we want skilled people to work for the enterprise, they have to offer them much more; they have to be motivated in a positive way.

The research of [26] is focused on employee motivation in Slovakia as well. The outcome that motivation factors such as atmosphere in the workplace, supervisor's approach, good work team, basic salary, fringe benefits and job security are considered the most important by employees in the eastern and western part of Slovakia is the outcome of their research and at the same time the outcomes of our research are confirmed.

Herzberg [27] carried out the research focused on employee motivation in the UK. He discovered following order of motivation factors: job security, career advancement, company prestige and management quality, wage as an essential factor, type of work, direct supervisor and his/her relationship to people, communication and the information flow in the enterprise, working conditions, benefits like a holiday. The outcomes of the research of Herzberg and the outcomes of our research vary a bit. Similar research was conducted in the USA [28]. They study the order of 10 motivation factors using the sampling unit consisting of 1000 respondents. Females and males in the USA consider the following 10 motivation factors as the most important: employee recognition, interesting job, employee engagement, good salary, job security, career advancement, company development, good working conditions, loyalty, tactful approach, discipline, understanding of personal troubles and help.

Following the outcomes of our research, we state that motivation factors in Slovakia and the Czech Republic are almost the same; the only difference is in their order of importance. Higher demands on motivation factors relating to financial rewards can be seen in the Czech Republic (demands of males are higher than those of females). However, basic salary is more important for females in Slovakia. In the area of motivation factors relating to interpersonal relationships (good work team, atmosphere in the workplace, supervisor's approach), demands of employees in the Czech Republic are higher than in Slovakia [24]. In terms of gender, demands in

mentioned motivation factors are higher of women. In general, women evaluate motivation factor at higher level of the rating scale than men on average. We suppose that they prefer emotional side of job, in comparison to men.

Following the outcomes of the research into the level of employee motivation in Slovak and the Czech Republic, we can state that motivation factors good work team, atmosphere in the workplace and supervisor's approach are significantly different. More exacting needs are those of employees in the Czech Republic. Different level of economic growth can be one of the reasons. Moreover, we found out that motivation factors relating to financial rewards are most important for employees in Slovakia as well in the Czech Republic. At the same time, we must state that preferences for the motivation factors can change throughout time. Each employee perceives the level of motivation in a different way because people have many needs that are continuously competing one with another. Each person has a different mixture and strength of needs, as some people are driven by achievement while others are focusing on security. If the managers are able to understand, predict and control employee behaviour, they should also know what the employees want from their jobs. Therefore, it is essential for a manager to understand what really motivates employees without making just an assumption [29, 30].

The outcomes of our research can help managers of enterprises in Slovakia as well as in the Czech Republic to differentiate motivational programmes in terms of gender. In this way, the effect of the motivational programme can be increased [31]. Moreover, employee satisfaction at work, effective meeting the company goals and company competitiveness on the market can be affected in positive way as well.

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Innovative Work Behavior: To What Extent and How Can HRM Practices Contribute to Higher Levels of Innovation Within SMEs?

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Abstract

In this chapter, the influence of HR practices and more specifically the Ned Herrmanns development tool HBDI on the development of innovative work behavior (IWB) is described. Innovative work behavior today is important for organizations to stay in a competitive position. Also for small and medium-sized enterprises (SMEs), like the case study in this chapter, innovation is essential to keep the SME's competitive advantage. As people are the most important resource in service companies, and they can contribute to innovation via their motivation and skills, the role of human resource management is important. In this book chapter, we analyze the positive influence of various HR practices on IWB. One of these HR practices is the HBDI tool, a specifically designed questionnaire which gives people insight into their problem-solving styles. The outcomes of the study in this chapter show that both HR practices and also the HBDI tool have a positive influence on developing innovative work behavior and on innovation performance.

Keywords: innovative work behavior, innovation performance, HR practices, Hermann Brain Dominance Instrument, small and medium-sized enterprises

1. Introduction

Today, innovation is important for firms to stay alive. Some changes in the business environment, such as the growing importance of services, knowledge, creativity, the developments in information technology, digitalization, globalization, and the surge of intellectual property, have created a new kind of economy [1]. In this new economy, intangible resources such as knowledge, creativity, corporate reputation, and innovation become more important.

Furthermore, one of the challenges that organizations face can be defined as follows: *“the requirement to innovate, not just occasionally but often, quickly and with a solid success rate”* [2]. Evidence is found that innovation leads to operational excellence, market advantage, company image and reputation, and the satisfaction of employees [3]. This means that innovation can help firms by shaping the future of their industries [2].

Small and medium-sized enterprises (SMEs) are an important driving force for economic growth and employment throughout the European Union [4]. For these SMEs, it is important to innovate. Research suggests that small firms which innovate increase their chances of survival and growth [3]. In fact, small firms have some advantages over large firms. Small firms have for instance a higher degree of flexibility [5]. This flexibility can create the right networking connections, seize the opportunities provided by the markets, and adapt quickly to changes in demand [6].

After acknowledging the importance of innovation, particularly for SMEs, the next step is to find out how firms can actually achieve the desired innovation and what is the role of HRM in supporting innovation. There are a couple of studies that investigated innovation in SMEs. To summarize, these studies emphasize the importance of market orientation and learning [7], the importance of training [8], the importance of initiative taking, and the importance of the knowledge of employees [9] for innovation in SMEs. Most of the above-mentioned aspects are included in today's human resource management (HRM) practices. Furthermore, the literature offers some important findings with regard to the direct link between HRM and innovation in SMEs. First, SMEs without in-house resource and development (R&D) activities can still achieve the same innovation success as R&D performers by actively using HRM and team work [10]. Second, it was confirmed that the more SMEs invest in formal HRM systems, the better their innovation performance becomes [8].

This study will focus on the role HRM plays in supporting innovative work behavior (IWB) of employees to finally contribute to the innovation performance of a company. IWB is closely related to the organizational culture, *“the stronger and more developed an organization's culture is towards supporting the innovative behavior of employees, the greater will be the individual's innovative behavior”* [11]. Another study showed that cross-functional teams are a critical organizational design for stimulating creativity and innovation [12]. These studies show that human resource management (HRM) practices related to innovation supportive corporate values (culture) and the use of teams (team design) can positively influence the IWB of employees which is supposed to have an effect on the innovation performance of the company in general [13].

The contribution of this study is that it generates insights with regard to the relationship between HRM and innovation in one SME case organization. This study will test the influence of HR practices on the IWB of employees in an IT-related small and medium-sized enterprise. This will fill the gap with regard to the scarcity of knowledge about the relationship between HRM in small and medium-sized enterprises and IWB and innovation performance and may be helpful for managers who attempt to stimulate innovation within similar companies.

The above-mentioned information leads to the following research question: *“To what extent could HRM practices and the use of the HBDI learning tool stimulate the innovative work behavior of employees and finally the innovation performance of SMEs?”* Next, a literature review and hypotheses will be provided. After a quantitative analysis, finally results and discussion follow.

2. Innovation in SMEs

Innovation is important for SMEs. On one side, innovation in SMEs is considered to be driven by profit margin, product life cycle, business model, short-term gain, quality, funding, a qualified workforce and external sources. On the other side, it is driven by pride, a desire to be successful and to improve working conditions [3]. Innovation among SMEs constitutes the lifeblood of economic growth. The power of this lifeblood depends on the degree to which SMEs consider innovation as their main operational strategy for gaining a competitive advantage over large companies [14]. This means that innovation should gain attention in the management process of SMEs and especially about the role of HRM in stimulating this innovation. After acknowledging the importance of innovation for SMEs, the challenge for firms is to actually achieve the desired innovation by the use of organizational supporting mechanisms [15], such as HRM practices, for example, the HBDI learning tool. Several studies are conducted with attention to this challenge. A first study suggests that active learning as in information sharing, in employee involvement, in team-based management, and in the development of competent personnel, is an important driver for innovative performance in SMEs [7]. This active learning focus is entirely embedded in the domain of HRM. In a second study, the importance of training for innovation within SMEs is emphasized [8]. The authors mention that some scholars argue that in modern and competitive firms, training investments are necessary because of the increasingly strategic role of knowledge and human capital in building and sustaining competitive advantages. However, they also acknowledge that training is not the only important practice that impacts the effectiveness of the innovation process. Other factors, such as rewards, communication, organizational support, and time availability, are also important for SMEs [8]. Also, these factors are all HRM driven.

3. Innovative work behavior

So far, the importance of innovation for firms and in particular for SMEs became explicitly clear in the previous sections. However, some scholars argue that innovation activities, in their turn, increase firms' need to provide employees with the adequate skills to change their attitudes towards innovation and increase their acceptance of innovation [8] and enlarge their capabilities. Furthermore, management of innovation is studied at various levels, at organizational, work group, network, and individual level [16]. The innovativeness of employees is a main source of organizational effectiveness that gained much attention among organizational researchers [17]. Finally, many practitioners and academics state that organizations should maintain, develop, and use the innovative potential of their employees as means to organizational success [18]. In this study, we focus on the role of HRM practices to support individuals in stimulating IWB.

IWB can be defined as follows: *"an individual's behavior that aims to achieve the initiation and intentional introduction (within a work role, group or organization) of new and useful ideas, processes, products or procedures"* [16]. Today, the IWB of employees is essential for the success of a company because a company cannot be innovative without their employees [13]. This means that

the IWB of employees is a specific key asset for the success of a firm in a fast-changing business. An important question is how firms can simulate the IWB of employees. The stronger and more developed an organization's culture is towards supporting the innovative behavior of employees, the greater will be the IWB of employees [11]. Another research indicated that flexible job design is a condition for showing IWB [18]. This flexible job design refers to the degree to which the job enables the employee to assist or even replace colleagues in unpredictable situations that arise during the daily work processes. Furthermore, another study's results [16] confirmed that participative leadership, external work contacts, and the innovation output of employees correlate with the IWB of employees. Finally, a research focused on the relationship between HRM and IWB was conducted [13]. The results of this study showed that HRM is able to contribute to the IWB of employees.

First, the importance of employees' IWB for the innovation performance of a firm became clear. Second, the positive influence of HRM on the IWB of employees has been confirmed. This would indicate that IWB mediates the relationship between HR practices and the innovation performance of an SME. This leads to the following hypothesis.

H1: The IWB of employees mediates the influence of HR practices on the innovation performance of SMEs.

4. HRM and innovation in SMEs

HRM can be seen as communication from the employer to the employee about important organizational objectives and employee outcomes [13]. "Human resource advantage" consists of human capital advantage and human process advantage [19]. To gain these advantages, the resources in an organization need to be valuable, unique, and in-imitable. This is also true for the human resources, taking an ever larger part of the total costs of today's organizations due to the knowledge intensive character of many (service) organizations [20]. However, to fully realize the competitive advantage, these resources and capabilities need to be organized in order to be fully exploited. This is where human resource management comes in. HRM here can be perceived as an umbrella term, referring to HR practices, such as recruitment, selection, training, and development, to formal HR policies constraining the development of these HR practices, and to HR philosophies that define the values that are the basis for HR policies and practices [20]. We focus in this chapter on the HR practices of an organization. Innovation can be considered as the output variable of HRM investments [8]. HRM aims at increasing incentives for managers and employees to engage in innovation activities and develop skills needed for effective innovation efforts [10].

There is little agreement about which practices should be combined for effective HRM [21]. A combination of HR practices is called "*a bundle of HR practices*". The authors investigated what the optimal bundle of HR practices is to stimulate innovation. This bundle is slightly different than the usual combination of HR practices. The HR bundle for increasing innovation consists of: performance appraisal, employee involvement, team working, job design, training, and development and provision of information [21]. They further argue that performance

appraisal is the most important practice and is possibly linked to aspects of goal setting and feedback. Furthermore, job design and team working have an impact on innovation within the workforce, stressing the importance of opportunity to participate. This is in line with an earlier study [10], of which the authors argue that recruiting methods to identify the right people for promoting innovation within an organization, training for handling innovation challenges, reward systems, performance management systems, and career development tools help in the formation of innovative ideas of employees.

HRM practices do also exist and are applied in SMEs. However, they are generally not formalized and extremely diverse, which means they resist generalization [22]. Furthermore, the (financial) resources that SMEs can offer to their employees are limited in comparison with large organizations [23]. As the HR strategy of SMEs differs from large organizations' HR strategy, specific research is needed about HRM in SMEs.

SMEs without in-house R&D activities can still achieve a similar innovation success as R&D performers [10]. R&D is a costly and risky activity that needs a minimum amount of resources and time in order to achieve results. However, HRM and cross-functional teams are innovation management tools that can help SMEs to gain similar innovation success [10]. Other studies confirmed that the more SMEs invest in formal HRM systems, the better their innovation performance becomes [8]. So, the literature emphasizes that HR practices lead to a higher degree of IWB of employees. Furthermore, the literature suggests that a specific bundle of HR practices can stimulate innovation within a company. Therefore, it is predicted that:

H2a: A bundle of HR practices has a positive influence on the IWB of employees.

H2b: A bundle of HR practices has a positive influence on the innovation performance of SMEs.

Finally, a positive relationship between the IWB of employees and the innovation performance of a company is expected. Therefore, the following hypothesis is proposed:

H3: The IWB of employees has a positive influence on the innovation performance of SMEs.

5. The HBDI

A specific HR development instrument that has not gained much attention in the HR literature is the HBDI®. The HBDI® is a self-evaluating tool that enables people to understand their own mental preferences. It evaluates and describes the degree of thinking of individuals in each of four brain quadrants [24]. The HBDI® and new ways of using it effectively have been developed over more than twenty years [25]. The four clusters of mental preferences are: upper left, characterized by logical, analytical, mathematical and technical preferences; lower left, characterized by organized, sequential, carefully controlled and managed thinking, planning and acting; lower right, characterized by preference for interpersonal relations, sensitivity to emotions and musical interests; and upper right, characterized by synthesizing, holistic, innovative, more risk-taking preferences [26].

The HBDI is a useful tool for investigating the interaction between humans [27]. Furthermore, awareness of the human mental preferences enables individuals to develop themselves in the area of problem solving, leadership, communication, and collaboration. It is a starting point of innovative thinking and generates new ways of working [24]. The HBDI is not only useful by diagnosing how people learn, but also by showing them how to enhance their learning. Finally, it involves growth and development, especially in creativity, and emphasizes that learning styles are not fixed personality traits but mostly learned patterns of behavior [25].

Since it is proposed that the use of the HBDI will lead to a higher degree of innovative thinking, it can be stated that the HBDI leads to a higher degree of employees' IWB. However, this could also be related to the innovation performance of SMEs. This is why the following hypotheses have been formulated:

H4a: The use of HBDI® as an HR practice has a positive influence on the IWB of employees.

H4b: The use of HBDI® as an HR practice has a positive influence on the innovation performance of SMEs.

Finally, just as the hypotheses concerning the HR practices, the employees' IWB is proposed as a mediator. This leads to the final hypothesis.

H5: The IWB of employees mediates the influence of the HBDI® on the innovation performance of SMEs.

6. Methodology

6.1. Research and design

This research is conducted by using both interviews and a survey. The purpose of the interviews was to generate some more in-depth insights about the company that has been investigated. With the help of the interviews, a survey has been designed. A total of 79 employees participated in the survey. The study has been conducted for the company RoutIT. RoutIT is a Dutch company that offers software solutions to SMEs. The company offers services in the area of Internet, mobile communication, connectivity, and cloud [28]. The company has approximately 1500 partners and 105 employees. It is a fast-growing company, and it is market leader of SMEs in the same sector [29].

Two statistical analyses were used for generating the results: a correlation analysis and a multiple regression analysis. During the analysis, the bundle of HR practices and the HBDI is the independent variables, and the innovation performance of SMEs is the dependent variable. The IWB of the employees is the mediator. Furthermore, department, level of education, age, gender, and function have been added as control variables.

6.2. Measures

6.2.1. Bundle of HR practices

Training, performance appraisal, and staffing are variables that were operationalized by making use of the items of former research [30]. Furthermore, the variable participation mentioned

in their study has been used for testing the employee's involvement. The variable training includes four items which indicate the availability of formal training activities, comprehensive training policies and programs, training for new hires, and training for problem-solving ability. Staffing consists of three items regarding selectivity in hiring, selection for expertise and skills, and selection for future potential. Furthermore, the variable participation consists of three items. The items are as follows: the degree to which firms allow the employees to make decisions, the opportunity for employees to suggest improvements into their work, and the voice of employees. Finally, performance appraisal consists of three items including developmental focus, results-based appraisal, and behavior-based appraisal [30].

The variable team working has been operationalized by using existing research items [12]. This variable consists of five items including problem-solving sessions, team building, quality circles, quality improvement, and leadership training. However, the item quality circles have been deleted since RoutIT does not make use of this. Furthermore, the variable job design is operationalized by using existing items [31]. This variable consists of the dimensions job control and problem demand. Job control and problem demand consist each of three items. This means that the variable job design in total consists of six items.

The research of Holman et al. [31] was the only one that provided clear questions for measuring the variable "job design." Furthermore, it was the only research that involved employees as respondents. The variables of the other researches were measured by answers of managers or top executives. This means that these items have been converted into questions suitable for employees. Furthermore, all variables were measured by a seven-point Likert scale with answers ranging from "strongly disagree" to "strongly agree." This method is more effective at generating responses than directly asking respondents to provide exact figures [12].

6.2.2. HBDI®

The studies with regard to the HBDI® are mainly concerned with the content of the instrument. No valid measurement scale has been found in the literature with regard to employees' outcomes when using the HBDI®. Therefore, the researchers themselves developed a measurement scale. This scale consists of four dimensions and nine items. The first dimension is the awareness of the instrument and consists of two items. The second dimension is related to the purpose in the use of the instrument within RoutIT. The purpose of the HBDI® within RoutIT is to make employees aware of their own thinking style and the thinking styles of others [29]. This dimension also consists of two items. The third dimension concerns the learning aspect of the HBDI® and consists of two items. The final dimension concerns work-related outcomes of employees when using the instrument. Employee work outcomes can be divided into three aspects [32]. These aspects are quality, productivity, and satisfaction. Each of these aspects has been used as an item in this study. To measure this variable, a seven-point Likert scale has been used with a range from totally disagree to totally agree.

6.2.3. IWB

For the measurement scale of the IWB, an existing scale has been used [18]. This scale consists of two dimensions: creativity-oriented work behavior and implementation-oriented work

behavior. Creativity-oriented work behavior consists of ten items and implementation-oriented work behavior of six items. In total, the scale consists of sixteen items. A seven-point Likert scale has been used with a range from totally disagree to totally agree.

6.2.4. *Innovation performance*

For measuring the innovation performance, an existing measurement scale has been used [33]. This measurement scale consists of the dimensions product innovation and process innovation. The items for measuring product and process innovation are based on several criteria that have been conceptualized and used in previous empirical studies of innovation [33]. These criteria consist of the number of innovations, the speed of innovation, the level of innovativeness (novelty or newness of the technological aspect), and being the “first” in the market. Product innovation includes five items, and process innovation includes four items. So the whole measurement scale of innovation performance consists of nine items. A five-point Likert scale with a range from 1 “worst in industry” to 5 “best in industry” has been used.

7. Results

7.1. Descriptive statistics

The sample includes 79 respondents. Of these respondents, 86.1% is male and 13.9% is female. The age of the respondents varies between 19 and 60 with a mean of 35. Most of the respondents are working at the operations department (41.7%). Respectively, the others are working at Partner Support (15.3%), Network Operations Centre (13.9%), Product Management (11.1%), Software (9.7%), and Business Services (8.3%). Furthermore, 19.4% of the respondents have a managerial function, which means that 80.6% do not have a managerial function. Most of the respondents have an MBO diploma (40.3%), a HBO diploma (26.4%) or a WO diploma (16.7%).

7.2. Correlation and regression analysis

Before conducting the regression analysis, a correlation matrix has been generated in order to gain some insights about the relationships between the variables (see **Table 1**). The table shows that there are significant correlations between the two independent variables, between HR practices and IWB, and between HR practices and innovation performance of SMEs. Furthermore, a significant correlation exists between the HBDI® and innovation performance of SMEs. However, there is no significant correlation between the HBDI® and IWB and between the IWB and innovation performance of SMEs. Finally, the only control variable that involves significant correlations is the variable “function.” Therefore, the decision has been made to include only this control variable in the analyses.

Model and control variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. HR practices	.542	.66									
2. HBDI	.495	.89	.536**								
3. IWB	.541	.67	.416**	.202							
4. Innovativeness	3.91	.62	.325**	.333**	-.044						
5. Gender	.806	.40	.067	-.088	-.011	.181					
6. Age	35.4	10	.088	.116	.211	.177	.202				
7. Department	-	-	.179	.112	.050	.197	.086	.231			
8. Function	1.81	.40	-.127	-.112	-.414**	.133	-.006	-.404**	-.035		
9. Education	.472	.50	-.094	-.021	.022	-.141	.089	.059	-.213	-.116	

Notes: * $p < .05$, ** $p < .01$. This table contains Pearson correlations. Variables 5, 8 and 9 are dummy variables (for variable 5: 1=male, for variable 7: 1=no managerial function and for variable 9: 1= below MBO). Variable 7 contains six categories and because it is a nominal variable, no mean and SD have been provided. Variables, 1,2, and 3 are 7-point scales and variable 4 is a 5-point scale. Variable 6 runs from 19 to 60.

Table 1. Inter-correlations of model and control variables ($n = 79$).

8. Models

During the analysis, two different models have been tested. The first model tests the mediating effect of the IWB on the relationship between the HR practices and the SME’s innovation performance. The second model is the same as the first model but instead of the HR practices, the HBDI® has been used as dependent variable (see **Figure 1**).

Model 1: The first model generated the following output (see also **Figure 2**):

- 1. Relationship HR practices—innovation performance: confirmed
- 2. Relationship IWB—innovation performance: not confirmed
- 3. Relationship HR practices—IWB: confirmed
- 4. Relationship HR practices * IWB-innovation performance: not confirmed

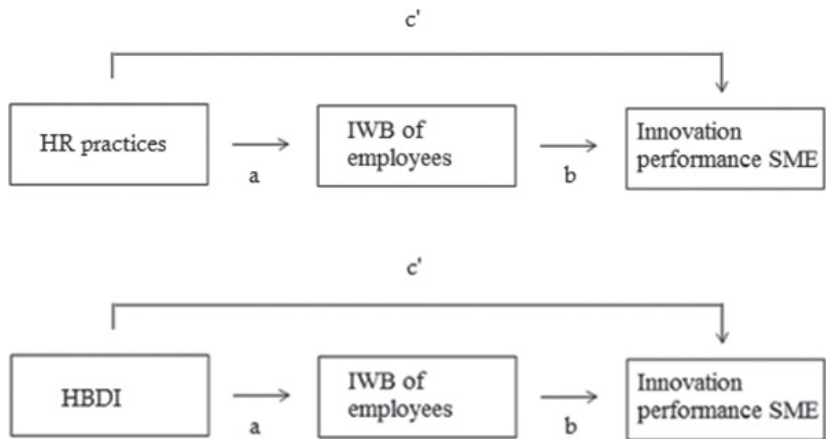


Figure 1. Regression models.

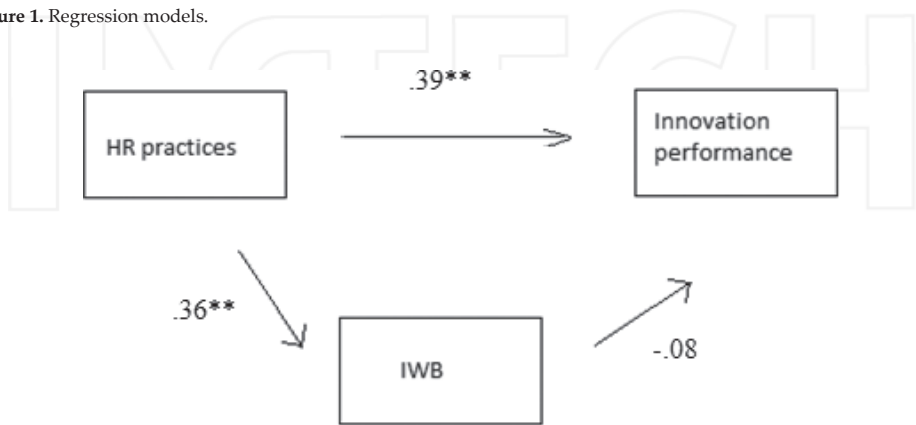


Figure 2. Outcomes regression analysis using process with HR practices as independent variable. Notes: * $p < .05$, ** $p < .01$ confidence interval = 95%, $R = .55$, $p = .00$.

To summarize, the HR practices have a significant effect on the IWB but the IWB in turn does not have a significant effect on the innovation performance. Furthermore, HR practices do have a significant effect on innovation performance. However, there is no mediating effect of the IWB of employees.

To generate some insights about the separate HR practices, two hierarchical regression analyses have been generated. The first one takes all the separate HR practices as independent variables and the IWB as dependent variable. In the second analysis, the innovation performance of SMEs has been taken as a dependent variable. Hierarchical regression has been used to be able to control for the covariate “function.”

When looking at the separate HR variables, only “job design” is significant ($p = .00$) and explains 45.3% of the dependent variable, the IWB of employees. This means that the other HRM practices do not make a significant unique contribution to the prediction of the dependent variable [34]. However, the regression analysis showed that the HR practices combined do have an effect on the IWB. Furthermore, the control variable “function” is significant ($p < .01$).

When looking at the significance levels of separate HR variables, only “team development” is significant ($p \leq .01$) and explains 40.2% of the dependent variable. This means that the other variables do not make a significant unique contribution to the prediction of the dependent variable [34]. However, the regression analysis showed that the HR practices combined do have an effect on the innovation performance of SMEs. Furthermore, the control variable “function” is insignificant ($p = .13$) which means that there is no difference between employees who do and who do not have a managerial function with regard to the relationship between HR practices and the innovation performance of SMEs.

Model 2: The second model generated the following output (**Figure 3**):

1. Relationship HBDI®—innovation performance: confirmed
2. Relationship IWB—innovation performance: not confirmed
3. Relationship HBDI®—IWB: confirmed
4. Relationship HBDI® * IWB-Innovation performance: not confirmed

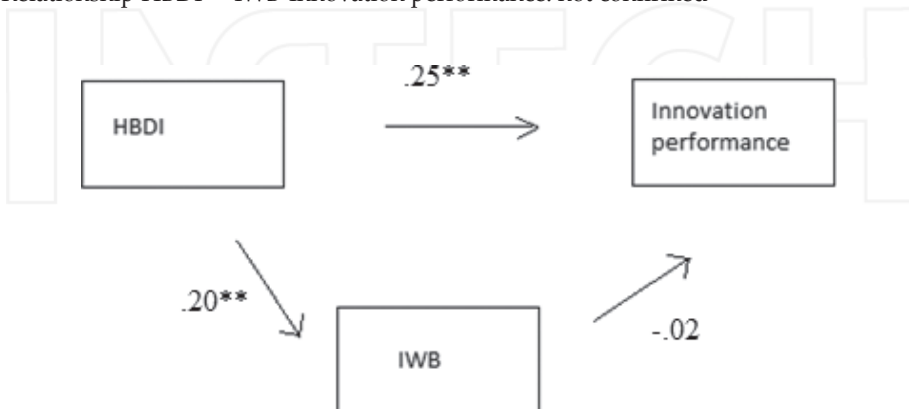


Figure 3. Outcomes regression analysis using process with HBDI® as independent variable. Notes: * $p < .05$, ** $p < .01$ confidence interval = 95%, $R = .50$, $p \leq .01$.

To summarize (see also **Table 2**), the HBDI® has a significant effect on the IWB but the IWB in turn does not have a significant effect on the innovation performance. Furthermore, the HBDI® does have a significant effect on the innovation performance. However, there is no mediating effect of the IWB of employees.

Hypotheses	Outcomes
Hypothesis 1	Rejected
Hypothesis 2a	Confirmed
Hypothesis 2b	Confirmed
Hypothesis 3	Rejected
Hypothesis 4a	Confirmed
Hypothesis 4b	Confirmed
Hypothesis 5	Rejected

Table 2. Outcomes of the hypotheses.

9. Conclusion

The results revealed that the innovative work behavior does not mediate the proposed relationship which means that hypotheses 1a and 1b were rejected. However, both HR practices and the HBDI® positively influence the innovative work behavior of employees. This means that both hypothesis 2a and 3a were confirmed. Furthermore, both HR practices and the HBDI® positively influence the innovation performance of a company which means that both hypothesis 2b and 3b were confirmed. Unfortunately, the expected positive relationship between the IWB of employees and the innovation performance of SMEs turned out to be insignificant so hypothesis 4 has been rejected. This means that the IWB of employees does not influence the innovation performance of a SME.

10. Discussion

During this study, the positive influence of HR practices on the IWB of employees has been confirmed. This is in line with the results of an earlier study [13] of which the authors showed that HRM is able to contribute to the IWB of employees. A remarkable aspect is that when the effects of the separate HR practices on the IWB of employees are measured, only the practice “job design” is significant. This means that this practice has such a strong influence that it affects the mean of all the HR practices in such a way that it becomes significant in relation to the IWB. This finding is in line with a former study [21] of which the authors argue that “job design” has an impact on innovation within the workforce. Innovation within the workforce involves the innovativeness of employees which is related to the IWB of employees.

An explanation for this effect is that job design is related to the characteristics of an employee's job [31], and the IWB of employees is related to an individual's behavior [16]. When an employee assesses the job characteristics more positively, he/she will be more motivated and will probably come up with new ideas and initiatives which will increase his/her IWB. In fact, this means that job design has to do with the intrinsic motivation of employees which makes it a very important HR variable.

Secondly, the relationship between the HR practices and the innovation performance of SMEs has been confirmed. This is in line with another study [8] the authors of which argue that innovation is perceived as an output variable of HRM investments. However, it is remarkable that when testing the effects of the separate HR practices on the innovation performance of SMEs, only the practice "team development" is significant. This means that this practice has such a strong influence that it affects the mean of all practices in such a way that the relationship between HR practices and innovation performance becomes significant. This finding is in line with an earlier study [12], in which it was argued that team development leads to a company's innovation development. A possible explanation for this effect is that working in teams bundles the knowledge of employees by which powerful ideas can arise, and finally, the innovation performance of the company can increase. Furthermore, "team development" includes items such as "having problem-solving sessions" and "making use of quality improvement" which seem to be reasonably related to innovation since they are focused on improvement and development.

Furthermore, the literature suggests that the use of the HBDI® will lead to a higher degree of innovative thinking of employees [24]. The results of this study showed that the HBDI® positively influences the IWB of employees. A possible explanation is that when employees are aware of their own strengths and weaknesses, they probably will try more actively to improve themselves. This will also make them more aware of the improvement opportunities within the company which will stimulate their idea generation and finally will increase their IWB. However, the company within this study uses the HBDI® as a static tool. That means that the HBDI® profiles of employees are not expected to change over time. When managers are willing to believe that employees are able to change, the tool can be used dynamically which might lead to an even stronger relationship between the HBDI® and IWB of employees. Furthermore, the HBDI® has a significant influence on the innovation performance of SMEs. Although this has never been empirically confirmed in the literature before, a reasonable explanation can be given for this relationship. Using the HBDI® might give employees the feeling that the company is up-to-date and is aware of the most relevant instruments available for employees. That is why they assess the company as more innovative compared to other companies.

For the relationship between the HBDI® and the IWB of employees, the control variable "function" turned out to influence this relationship. This relationship is stronger for employees who do have a managerial function than employees who do not have a managerial function. This might be explained by the reasoning that employees with a managerial function are more aware of the strategy of a company and therefore more receptive for the practices the company offers. When they are more receptive for the HR practices and the HBDI®, this will probably influence their IWB more rapidly than employees that are less receptive for these

practices. Another explanation is that employees with a managerial function might have a more challenging job which makes them more motivated. Also, the level of autonomy might play a role here. When they are more motivated and have autonomy, they are more willing to gain new experiences which mean that it is more likely they will be positively influenced by the practices the company offers.

Finally, the positive relationship between the IWB of employees and the innovation performance of a company is suggested in the literature [13]. This actually suggests that the innovation performance of a company finds its existence in the IWB of the employees of the company. This relationship has been tested during this study in which the IWB of employees was proposed as a mediator on the relationship between HR practices/HBDI® and the innovation performance of SMEs. However, the main finding of this research is that there is no mediating effect of the IWB on the relationship between the HR practices/HBDI® and the innovation performance of SMEs. This finding is in contradiction with the existing literature. An explanation for this outcome might be related to the industry in which the investigated company is operating in. During this study (by means of the interviews), it became clear that the IT service sector does not come up with radical innovations but mainly with incremental ones. Therefore, the innovation performance within this sector is relatively low. Furthermore, most innovations arise from developments in the market which means that innovation comes from outside the firm so the employees have less impact on the innovation performance of the firm. Therefore, they are not able to affect the innovation performance of a company significantly. Moreover, during the interviews, it became clear that management does not believe that the employees of most departments are able to affect the innovation performance of the company. Only a few employees of some specific departments (e.g., R&D) are supposed to do this. Therefore, the IWB of employees in general cannot influence the innovation performance of the company.

11. Managerial implications

This study offers some useful insights for companies and especially for HR managers. The study shows the effect of using strategic HR practices on the IWB of employees and on the innovation performance of SMEs. Respectively, “job design” and “team development” turned out to be particularly effective for increasing the IWB of employees and the innovation performance of SMEs. This means that HR managers can effectively use these practices to obtain both employees with a higher IWB and a more innovative company. Furthermore, this study shows the positive effect of the HBDI® on the IWB of employees. This means that managers can use the HBDI®, which makes employees more aware of their own thinking styles, to stimulate their innovative work behavior. More specifically, by underlining the innovative part of the HBDI® (the yellow quadrant), employees will become more aware of their innovative capabilities which will stimulate their IWB. Furthermore, the insight may lead to developing one or more of the other three quadrants. Finally, it turned out that the relationship between HBDI® and IWB has a stronger impact on employees with a managerial function. This means that managers should give special attention to the employees without a managerial function

in their HR strategy to achieve the desired level of innovative work behavior. This can be done for instance by making these employees more aware of the strategy and goals of the company and showing them which tools (e.g., the HBDI®) can help achieve these goals.

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INTECH

Investing in Human Capital as a Key Factor for the Development of Enterprises

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Additional information is available at the end of the chapter

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Abstract

Small and medium-sized enterprises (SMEs) are considered to be a driving force of the economy in the world. Among the most valuable features of SMEs is their flexibility, decision-making accessibility, implementation, innovation and high adaptability to the market environment. SMEs provide for acceleration and economic growth of the country and its regions. Investment in human capital in SMEs, (meaning investment into intangible assets of the company), it is one of the ways to support this sector. In the same manner as SMEs are considered to be a driving force of the economy, human resources can be seen as its driving force, the source of success, competitiveness and added value of businesses. Human capital is one of the most valuable components of any business and that is why investment in human resources becomes a necessary step ensuring that a business prospers in a changing market environment. Current trends also point to the growing importance of investment in human capital. The future will certainly belong to those companies which pay most attention to effective management of human resources, which, in terms of time factor is an important prerequisite for growth and competitiveness of a company.

Keywords: investments, human capital, human resources, return on investment, enterprise

1. Creating market value of small and medium enterprises through human resources

Currently, small- and medium-sized enterprises (SMEs) in developed economies are irreplaceable. They are considered a driving force of the economy because they largely contribute to the increase in innovation activities and to the flexible introduction of new products and also are adaptable. They also create a substantial volume of job opportunities. In Slovakia, SMEs represent a part of the business sector, which according to the Slovak business agency [1] produces nearly 60% of added value and provides over 70% of jobs. For a stable and prosperous market economy, it is essential that there is a medium state of SMEs in the society. It is precisely for this reason that it is necessary to pay more attention to SMEs, encourage them and also create favourable business conditions.

SME category has its own significance and role in corporate management. The role of SME entrepreneurs differs both quantitatively and qualitatively from the tasks of managers in large enterprises. In many cases, large enterprises greatly rely on SMEs in the provision of their support services and products which enables the large enterprises to concentrate on their core activities. Therefore, SMEs are highly valued for their creativity, flexibility, rapid response to changes in the environment and also in easy decision-making implementation of innovation, as well as for their focus on specific markets [2–4]. On the other hand, compared to large enterprises, SMEs have limited resources, which make them less technologically equipped. They are less able to prepare and manage business plans; they are more dependent on personal relationships between management and employees and between management and customers. SMEs usually do not have significant personal contacts within the financial sector and the government and thus are less able to negotiate special tax and state benefits [5]. However, as long as the aforementioned negatives are identified and eliminated in time, SMEs can effectively manage their business activities and significantly contribute to creating an added value and jobs in any economy.

The existence of the enterprise, its prosperity and dynamic progress is primarily affected by the quality of human resources. Prosperous enterprises realise that the most profitable capital of the enterprise is its employees [6]. Nowadays, the statement that people are the most valuable resource of any company proves to be more true than before. No more it is enough to ensure quality technical equipment and technology. Without the people who create added value in the company as bearers of human capital, no technical achievements can be properly utilised [7]. Moreover, a significant part of the value of the company, in addition to its financial capital consisting of financial assets, is created by the company's intellectual capital. Intellectual capital is defined as stocks and flows of competencies, knowledge and skills available to businesses, which contribute to the process of generating market value of the company [8]. Intellectual capital is essentially a set of intangible sources that together with the material resources form the market value of the company. In other words, intellectual capital comprises competencies, knowledge and skills of company's employees [9]. All these competencies are disseminated and transmitted further, parallelly with contacts to people outside the company (creating thus a social capital of the company) for the purpose of creating a so-called

business knowledge-organisational capital [8]. It is clear that the company should pay more attention to the human factor, and, consequently, human factor should not be seen only as an additional expense but as a prospective income, which will pay back in the future [10]. It is also important that business owners become aware of the fact that the success of their enterprises as a whole depends mostly on their employees. They should not overlook this fact; on the contrary, they should seek ways of the most effective use of their human factor.

The significance of human factor was analysed by Gary Becker. Becker divided human capital into a general one (usable in a variety of jobs) and to a specific capital (which can be best used in a specific company). Becker's division stimulates further discourse of motivation and the need for investment into vocational education in order to increase the company's human capital [11]. Human capital is affected by three fundamental features shown in **Figure 1** [12].

Figure 1 shows that the skills and qualities of the individual are determined by initial factors and they can be further developed by education and the environment. Education and the environment interact and by the impact of one's environment in which the individual grows up, as well as by the impact of continuing education (both formal and informal) and by shaping one's character, the individual acquires and develops his or her competencies and skills [12].

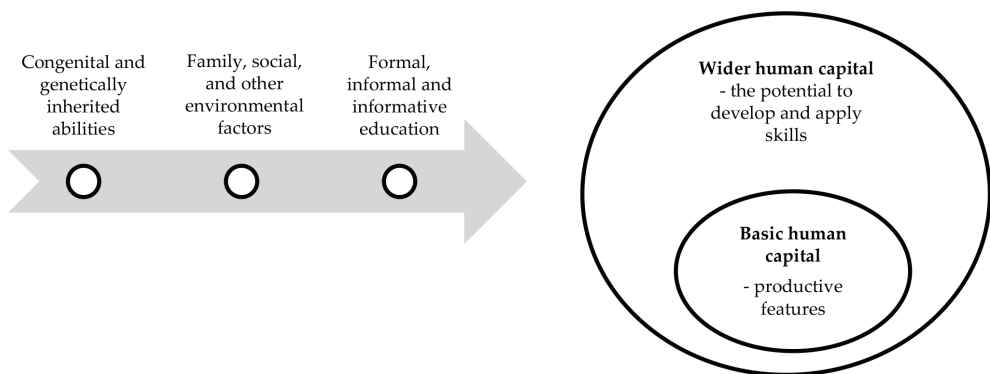


Figure 1. Factors affecting human capital (Source: [12]).

2. Investment into human resources

Enterprises become increasingly aware that proper investment into human resources can have a significant impact on their performance, which of course also affects their competitiveness. The corporate culture exactly offers the greatest source of competitive advantage of enterprises [13]. Continual adaptation to changing market conditions attracts businesses to invest their energy and finance to staff by improving their competencies. Businesses improve their human resources and consequently increase their psychological and professional assets by investing into human potential of individuals by improving their skills and competencies [14].

There exist various ways of investment into human resources. Businesses can invest in general human capital, which is an investment into specific or general training that enables acquisition of general knowledge usable in various companies. This results in higher future expected return of investment. The second option of investment into human resources is to invest in specific human capital. Specifically, it is investing in the improvement of specific competencies and skills for a particular job. This form of investment is less risky in terms of staff turnover as the use of specific knowledge is less likely to be used in other companies [15].

There are also other forms through which the company can provide investment in human resources, for example, by improving working conditions by using more efficient and innovative protective aids and tools [16]. The second way is to improve the health conditions of employees through quality social programme. The third form of investment in human resources could be improvement and expansion of business skills, competencies and abilities achieved by high-quality corporate education. All the above-mentioned forms of investment into human resources aim towards the overall development of individuals and also his/her acquisition of new skills, competencies and abilities, as well as a change in behaviour and attitudes of individuals towards the company and its objectives [7].

When investing into human capital, the enterprise should pay attention to the criteria used for investments into fixed capital, taking into account also the specifics and factors that affect the overall investment process. When considering the philosophy of strategic planning into human resources, it is necessary to take into account two criteria: first, feasibility of investment which answers fundamental questions about the availability of necessary resources, efficiency, time factor, the size of capital invested and the like. The second criterion is the eligibility of the investment. Then, the investor confirms the correctness of the decision to implement the investment. The evaluation process will take into account the appropriate approaches and methods, including the time factor and also the risk of investment into company's human resources [17]. Another issue to be taken into consideration in company decisions to invest in human resources is the fact that such decision is limited and depends mainly on the estimated volume and availability of capital expenditures and also on the expected amount of income from investment management, cost of capital and optimally quantified assessment of the investment period [18].

2.1. Investment into education of company's human resources

In economic theory, investments in education of the employees are the most common assessment of the investment in connection with the analysis of investment in human capital. The development of required skills of the employees is mostly provided by two key elements: personality training and education. Personality training can be understood as the process of creating the personality of an individual. Education is a form of development and shaping of the personality of an individual. These two elements represent important components of the activities of personnel management. Personnel management, by influencing behaviour and skills of employees, seeks to effectively achieve the objectives within the frame of the company's strategies. In this process, creation of suitable conditions for the implementation of individual education of employees, organised informal learning and quality corporate learning

system play the most important role [7]. Further, business system of education in the broader sense focuses on the formation of working skills and social characteristics essential for creating healthy personal relationships of the employees [8]. This is a repeating cycle based on the objectives of the corporate strategy and also based on the principles of corporate training policy. This cycle further relies on organisational and other business conditions of education. It consists of four phases of the long-term process of effective training and development, as presented in **Figure 2**.

In order to effectively evaluate investments into human resources, it is necessary to carefully plan company's educational and development activities. A common problem, however, is usually insufficient budget for the required scope of education, training and other activities. The lack of subventions is also the main reason why trainings are carried out irregularly. There are two ways of investment into human resources: companies may choose internal (intra-unit) and external (outside the enterprise) form of education. Each of these options has their advantages and disadvantages. The internal form of education, which includes coaching, assisting, working on projects, internal briefing in the performance of work and so on,

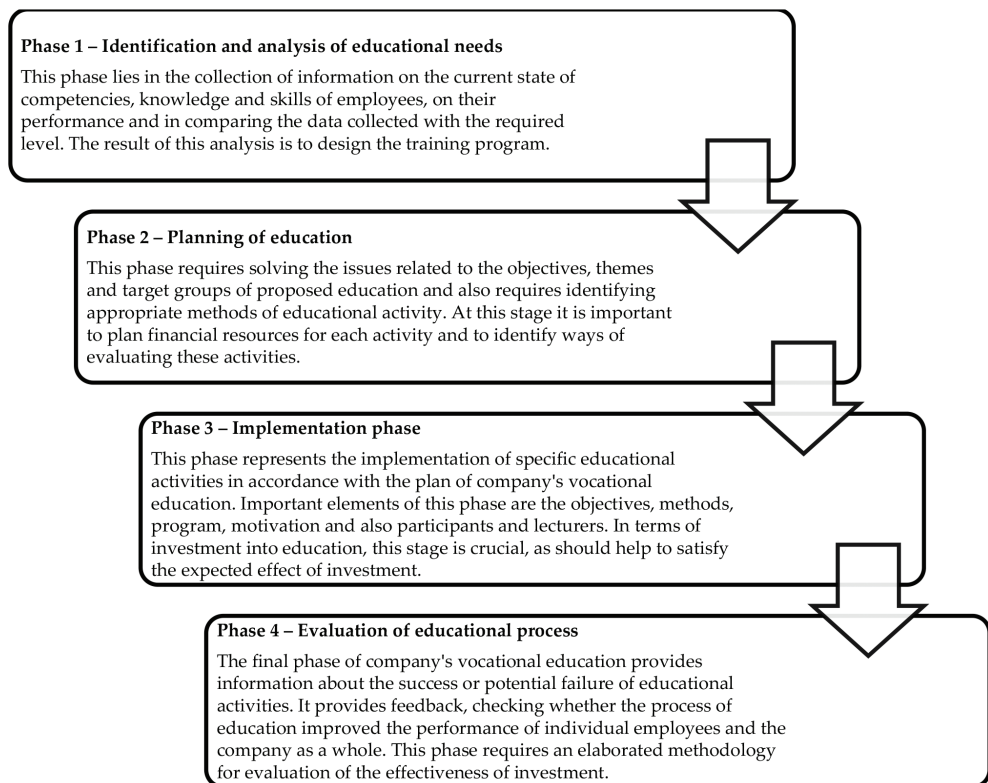


Figure 2. Four phases of the effective training and development in the company (Source: [7]).

is by the majority of businesses considered to be a more effective form. On the other hand, the main obstacle to application of this form is usually a lack of the required volume of financial resources and a lack of suitable trainers. External form of education, carried out outside a company, is also considered to be faster and easier. The problem may occur if the supply institution misunderstands requirements, which immediately reflects in the amount and structure of the expected total return by investing in human capital of the company [18].

2.2. Investment into benefits in the field of human resources

Except for investing in corporate education system, it is also important to invest into business benefits for human resources to ensure that capable employees that create a competitive advantage in business are recruited and retain in business. We assume that investing into an effective system of distribution of corporate employee benefits is a key solution to recruit and keep employees but also a way to further develop teams of high-quality employees [19].

Business benefits presented in **Figure 3** should be arranged so that they increase employees' motivation and interest. It is therefore necessary to regularly evaluate business benefits and check how effective, fair and appropriate they are in order to contribute to the assessment of employees' success and consequently to the system of rewarding.

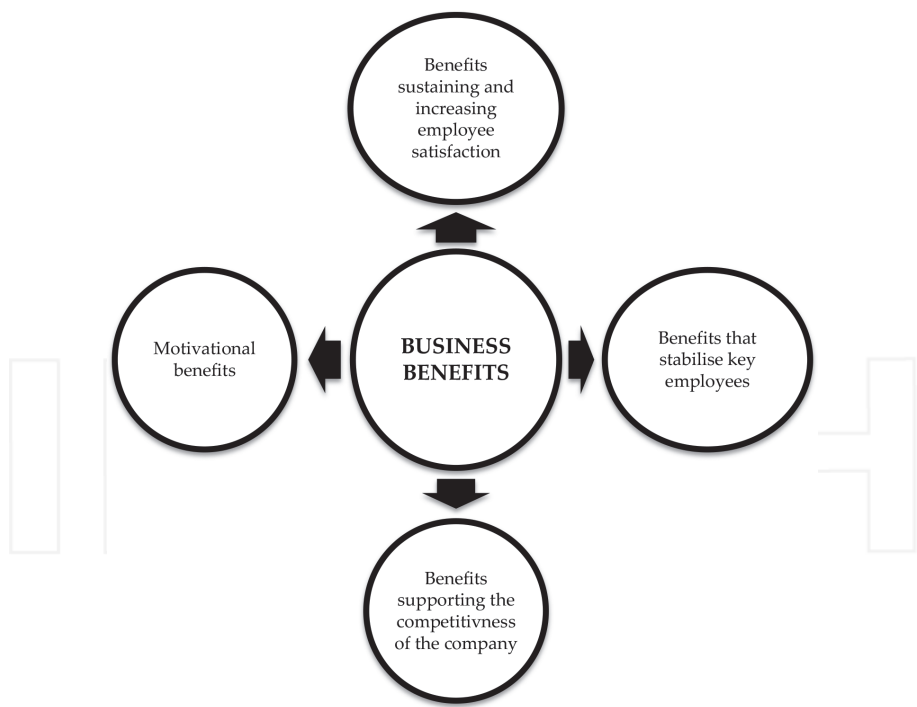


Figure 3. Business benefits (Source: [20]).

3. Defining and measuring the investment in human resources

To assess the efficiency of investment in human resources, it is important to provide a detailed cost-benefit analysis of the investments. In order to achieve a successful investment, it is necessary not only to correctly define the economic parameters of each project but also to take into account certain specific features and their impact on expected returns in due time and in the company's environment. In determining the expenditure related to investment in human capital, the efficiency evaluation should include all the cost associated with the identification and analysis of training needs, costs of developing and learning activities, renting costs, accommodation, information and communication technologies, the cost of teaching aids and materials, the cost of external trainers and lecturers, direct personnel costs for trainers and staff (such as travel and subsistence expenses, insurance and various other benefits provided by the employer) as well as other costs related to various forms and methods of education. These costs, as well as other costs of learning activity, are associated with specific phases of the process of vocational education, and therefore it is possible to divide them as suggested by experts [7] into:

- Types—labour costs, depreciation of fixed assets, material consumption, operating costs and others
- Specific educational activities—such as language training, communication training, etc.
- Stages of the education process—such as identification and analysis, planning, implementation and evaluation of educational activities

To ensure economic efficiency of a selected educational activity, the company should first of all determine the optimum amount of the costs, dependent on the (minimum) number of employees in a given activity. The minimum number of trainees and the minimum volume (value) of revenues for the respective training can be defined by setting the profit threshold through the division of costs into fixed and variable. Investments in human resources may also include the costs of lost or unused opportunities that represent possible earning potential, in which the employees could gain, but which was omitted due to the educational activity. Furthermore, this cost may also include the loss of profit from unaccomplished work due to an educational activity. Generally, these costs are not economically evaluated; however, if the company is interested in evaluating the economic efficiency of educational activities correctly and objectively, they should take these costs into consideration [18].

The total expected revenues from educational activities for the company gained during a pre-determined period of time depend on the success of all employees and their ability to apply gained knowledge as well as on the overall business performance in a given time. The main problems in determining profits of vocational education [21] are as follows:

- Setting the period for assessing the effectiveness of education. As in education there is no universal way to determine the optimal time for evaluation of effects, it is important that a manager presents a specific activity period on the basis of their personal expert estimate.

- Determination of the effect of selected training activity on the so-called cash flow expected return. This profit is influenced by a number of factors, and that is often why it may cause a problem in proper assessment whether the examined effect is the after-effect of the educational activity or whether it results from other changes within the company.

Investment in human capital is profitable (effectively utilised), provided that the total expected return (cash flow) is higher than the costs invested, respectively. In other words, it is profitable if the rate of return of funds spent (r) is higher than that of investment, so-called interest rate (i). The company then reaches revenues from investment; if pays $r > i$, while investment in human capital is profitable until the rate of return of funds spent (r) is equal to interest rate (i). As a result of the downward trend of the additional revenues from the additional training and development of employees, the internal rate of return of investment (r) is limited. However, to assess the effectiveness of learning activity exclusively on the basis of its costs is not reliable. Generally, such a decision can be more expensive than reduction of the cost of ineffective education. Therefore, it is preferable to choose the opposite approach in assessing the effectiveness which lies in tracking benefits (contributions) of training, which can represent positive change indicators, as presented in **Figure 4** [7].

For several decades, experts have been seeking, testing and verifying methodology that efficiently objectively defines the value of human capital. One of the reasons for this research is also the fact that human capital constitutes a key element of the market value of the business

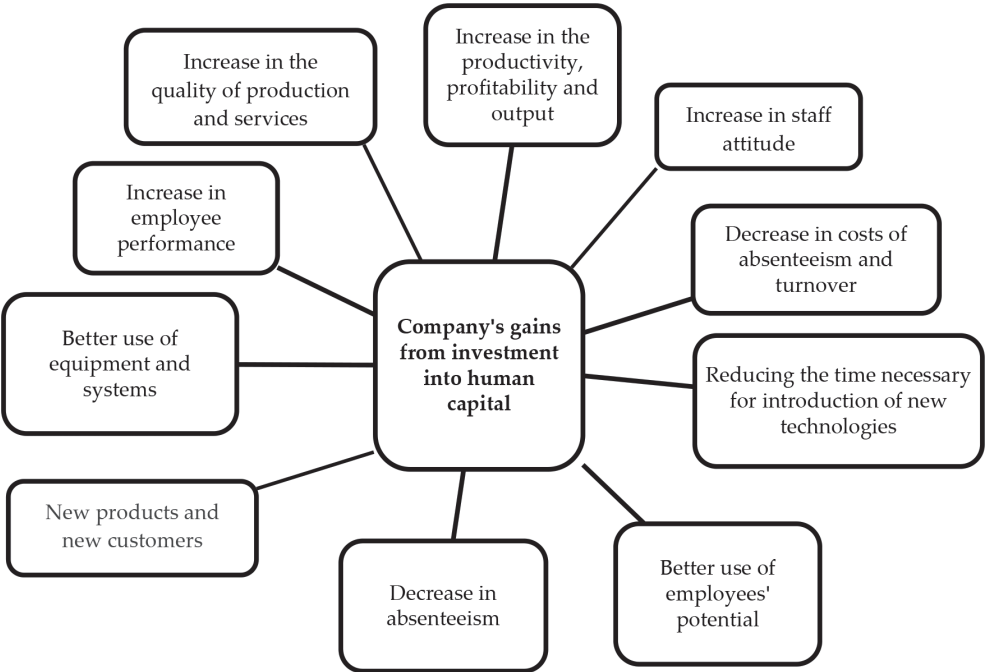


Figure 4. Company's gains from investment into human capital (Source: [7]).

and should therefore be included in the accounts. All these information are necessary for the acquisition, stabilisation, development and optimisation of human capital. Careful measurement of the value of human capital will lead to the implementation of appropriate management strategies of human resources as well as to the evaluation of the effectiveness of personnel work [22]. The basic objective in measurement of the value of human capital is its quantification, especially important for financial and management decisions of the company. Needless to say, the measurement and valuation of human capital are the basis for planning human resources in a company and for checking the efficiency of investment in this area [23].

The issue of investment in human resources has been analysed by several authors; however, so far there has not been compiled any unified and comprehensive methodology that would clearly stipulate the methods of measurement of the value of human capital. The main problem in setting the methodology is the measurement of human capital as an intangible asset. The reason is, in the field of labour and human resources, there are many factors (e.g. employees' characteristic features) that are hard to quantify or are very difficult to measure. When evaluating the efficiency of investment into the training of human resources, it is necessary to determine the possible factors that influence the effectiveness of these investments. Among these factors, the quality of the implementation of individual stages of education, teaching methods and applied approaches in the process of evaluating educational activities represents the major issues. Further, this group of factors includes subjects of education and their attitude to various activities, interest in and support for the management of the enterprise via application of acquired knowledge and skills of employees, linking educational programme and business objectives as well as corporate culture. When integrating all these factors, the company should also take into account the following two very important issues [7]:

- The time to achieve full return on investment. Setting of such a period significantly affects the nature and objective of the training programme. The point is that the company (after the return on investment) may benefit from additional training of staff until the end of employees' working life.
- Nonmaterial, qualitative benefits. The company shall understand that not all benefits are measurable in financial terms. These nonmaterial benefits reflect improvements in areas such as communication, motivation, attitude and teamwork, which are essential for company's success. In order to properly measure these benefits, interviews with managers and employees, the analysis of effects and also other methods may provide useful information about the benefits of education.

Therefore, conducting a detailed assessment and monitoring of achievements are especially important in terms of determining the overall economic efficiency of investment in human resources. Moreover, evaluation of selected indicators of human resources should not be the last step in implementation of investments in human resources, but one of the first. Such evaluation should be included into the needs analysis, definition of objectives and subsequent analyses necessary for the training and development of employees. It is essential to first decide whether an investment in human capital should be carried out or not. Thus, when formulating objectives of education, the efficiency of investment should be estimated at least in general terms. Failing to present the objectives could lead to unprofitable investment [24].

In spite of the many recommended indicators, criteria and methods of assessing the effectiveness of investment in human resources available at the market of consulting and advisory companies, no such indicators should be applied without thorough knowledge of the specific company and its specifics. Each recommended methodology should be tailored to meet the specific criteria of assessment [18]. Bonta and Fitz-enz proposed indicators, which enable effective evaluation of human capital in the company. Their methodological approach distinguishes the main areas of the value of human capital, which are human capital efficiency, its value, the investment into human capital as well as the loss of human capital. For each of the areas, there are variables that can be measured and quantified [25]. They are presented in **Figure 5**.

Indicator sales per employee is the aggregate result of work of the department of human resources, which also affects the development of human capital in the company. Human capital return on investment (HCROI) is an indicator of return on investment in human capital, including salary and compensation of employees for work, which represents another indicator or return on investment. Effectiveness of this procedure is based on the assumption that the value of employees to the enterprise is determined by wages (paid to employees as an equivalent compensation for their work). In addition to the salaries, investment in human capital also includes the costs of training and development activities. On the other hand, the loss of human capital is usually associated with reducing the value of company's intellectual capital, and it should therefore be as low as possible. When considering indicators of investment effectiveness in human capital, there are five most commonly used indicators of personnel when the overall company is taken into consideration [26]:

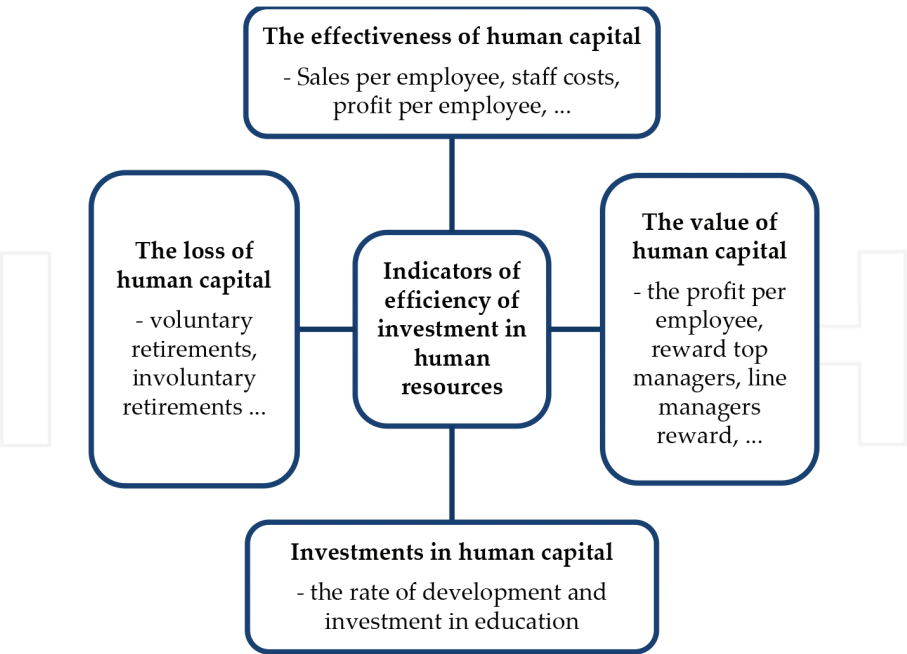


Figure 5. Indicators of efficiency of investment in human resources (Source: [25]).

1. Human economic value added (HEVA)—represents the share of one employee on creating economic value added.
2. Human capital value added (HCVA)—it is similar to HEVA; employee share in added value, with the added value of creating revenue net of costs (excluding the cost of employee benefits and labour costs).
3. Human capital cost factor (HCCF)—reflects the total cost of human capital.
4. Human capital return on investment (HCROI)—indicator reflects the amount of gross profit EUR per one euro of direct costs of human capital.
5. Human capital market value (HCMV)—the market value of human capital gives personnel managers information on the amount of EUR net market value per one employee.

Based on the research carried out on more than 10,000 companies, the most famous consultants PricewaterhouseCoopers and Saratoga recommend key indicators to measure the effectiveness of human capital. They are included in **Table 1**.

According to Dubcová and Foltínová [27], these indicators measuring human capital are financially dependent on the overall business results, and their selection and use depend primarily

No.	Indicator	Characteristics
1.	Cost factor	Compares the time and effort of human capital to the operating cost of enterprise output
2.	Return factor	It refers to the time and effort associated with human capital as well as the productivity of employees. It represents a measure of revenue generated by each individual employee. It is a basic measure of the effectiveness of human capital and is the result of all the dynamic elements of human capital management, which affects the overall behaviour of employees
3.	Profit factor	It shows the time and effort spent on human capital acquisition of operating profit. Compares the profit from operations and total number of employees
4.	Earnings before interest, taxes, depreciations and amortisation charges (EBITDA)	It refers to the time and effort spent on human capital acquisition income before tax, taking into account depreciation, interest and amortisation
5.	Human capital return on investment (HCROI)	It compares the portion of adjusted indicator of profit to the cost of human capital, in addition to tuition, which directly reflects the amount of profit made from each 1 EUR invested in labour costs
6.	Human capital value added (HCVA)	It shows a modified operating profitability indicators, which provides for adjustment of all operating expenses from operating income, taking into account the total number of employees
7.	Human economic value added (HEVA)	It shows the wealth generated by the average number of employees in the company. It presents the extent to which the economic value added (EVA) produced by the average number of employees. It expresses the wealth generated by the average number of employees in the company. It presents the extent of economic value added (EVA) produced by the average number of employees

Source: [27].

Table 1. Indicators for measuring the effectiveness of human capital.

on business strategy as well as on strategies in the filled of planning and management of company’s human resources.

4. Objectives and methodology of research

At present, many changes and constantly increasing demands on human resources occur as a result of new technologies. These dynamic changes perpetually encourage businesses to be more and more interested in the efficiency of investment in their employees. It is therefore important to focus company’s investments in human resources so as to effectively get back the invested capital and to meet the objectives of the company and its visions for the future. The objective of this work is to determine the effectiveness of investments in human resources, using statistical and econometric methods. The analysis focuses on measurable economic indicators such as labour conditions, turnover, productivity, human capital value added (HCVA), human capital return on investment (HCROI) and other measurable indicators. Evolution of the indicators was examined between 2013 and 2015. Nonmeasurable indicators of the contribution of investment in human resources were obtained by questionnaires. The research was done in a woodworking enterprise engaged in the Slovak Republic, which employs less than 250 employees. The aim was to identify similarities and differences in motivation factor for employees that significantly affect the satisfaction, motivation and performance of the employees, as well as the overall performance and potential development of the company as a whole. We contacted all the employees working in the selected company. A total of 176 questionnaires were distributed. One hundred and forty-eight questionnaires were correctly filled out—which represents a return to the level of 84.09%. Detailed identification of respondents in terms of age, education level, job category and seniority is presented in **Table 2**.

From the analysis of the respondents, it can be seen that the age structure of the survey sample is diverse. That is a prerequisite of flexibility of human resources in the enterprise. Younger workers can bring new ideas, whereas older employees provide balance and knowledge based on years of experience. Completed education that prevailed among employees was secondary education. When concerning seniority, a group of employees who worked for 10 years

Age		Finished education		Seniority—years of practice		Employment category	
Under 30	35	Primary school	12	Less than 1 year	9	Top management	9
31–40	28	Secondary school (no school leaving exam)	56	1–3 years	29	Middle management	15
41–50	45	Secondary school (school leaving exam)	67	4–6 years	20	Worker	124
51 and more	40	University	13	7–9 years	22		
				10 years	68		

Source: [own data processing].

Table 2. Composition of the research sample.

or more prevailed. This fact is a sign that the company is able to keep valuable employees and meet their needs. Among all respondents, the greatest number was represented by workers and middle management. However, we were also able to obtain preferences of top management individual work motivation and preferences.

5. Results of research and discussion

The results of the research in selected company can be summarised in the following conclusions:

1. In the area of management strategy of human resources, the company has developed an effective education system for all levels of management from top management through middle management to the workers, with a priority focus on the customer. Company's objectives in education and development are defined to support the effectiveness of management processes, effectiveness of internal communication and quality of selling goods and services to end customers. Training of employees is based on the concept of education and development of employees. For each year, funding for education, time table, methods, individual training modules and the exact number of employees to be educated are provided. Employees are educated through external and internal forms. In terms of distance education, we mean intensive training of top employees. This education is provided by external educational institutions. Internal training takes place within the company and is intended for middle management and workers.
2. In the context of measurable indicators of efficiency of investment in human resources, we analysed the first indicator—wage conditions and business benefits for employees because rewarding of employees is part of the process of preserving and maintaining an effective workforce. Company's forms of compensation varied, depending on the employee's working position. Workers were paid on the basis of piece wage, middle management's wages depended on contract wages and top management gained proportionate wage. The employees' wages, based on compliance with the qualification requirements, were classified within one of the 12 categories of wage tariff system. According to the relevant tariff class, employees gain tariff salary determined by the applicable tariff. There is the guarantee that employees are entitled to tariff-based payment, i.e. to the fixed part of the contractual salary and wage advantages irrespective of the overall results of the company. The average monthly wage in 2015 was € 515.88, which is far below the average monthly wage in the Slovak Republic.
3. Except for wages, employees were entitled to a wide range of financial and nonfinancial benefits in terms of business benefits. This includes special bonuses; personal assessment of employees' failure to report absence from work; additional payments for overtime, for work on public holidays and for work on Saturday and Sunday; the reward for living and working anniversaries; contribution to board; contribution to transport to and from work; contributions to supplementary pension insurance; time off with pay in excess of the labour code; contributions to health care and other recovery workers;

contributions to the social and cultural events and company's notebook, cell phone or car for employees whose job requires training and staff development. Further, the employer supported university study by providing study time off and contributions to employees who studied part time at universities, by which the employer shows interest in increasing their employee's skills. This advantage was connected with compulsory employment after finishing the school for a selected period of time. Further benefits provided to an employee included social assistance in unpredictable situations in employee's life.

4. Although the average monthly wage compared to the average monthly wage in Slovakia is lower, which reduces the attractiveness of the selected enterprise for job seekers, employees are provided with a variety of benefits that motivate them to perform. The monitored company lacks feedback from its employees, which would help to determine whether the benefits act as an incentive to increase employees' performance.
5. The value of the intellectual capital of the company is closely linked to the increasing or decreasing trends in the number of employees who come into the company and thus increase the value of the intellectual capital. Average monthly income is one indicator of the effectiveness of the investment to employees. Effectiveness indicator is based on the idea that the value of individual employees is determined by wages, i.e. business investment in employees, which is paid to them as the equivalent of work.

The average monthly salary, presented in **Table 3**, was during the monitored period developing in a variable rate. In 2011, the average monthly wage was € 501.70, but the economic crisis translated themselves into a decline to the level of € 485.20 in 2013. The gradual recovery in the economy has increased the company's turnover, which resulted in an increase in the average monthly wage at the level of € 515.88 in 2015. Even though the average monthly salary was less than the average monthly wage in the Slovak Republic, its slight increase might be taken as a promising positive development for the future.

Indicator/year	2013	2014	2015
Number of employees	170	169	176
Average monthly wage (in EUR)	485.20	508.94	515.88
Average monthly wage in Slovakia (in EUR)	824.00	858.00	883.00

Source: [own data processing [28]].

Table 3. Number of employees and their average wage (development).

6. Employee turnover was the third measurable indicator of efficiency of investment in human resources. In **Table 4**, we examined the turnover of employees within the enterprise, which may not be viewed only as a negative phenomenon. Sometimes, some low turnover rate may be even necessary, as it enables the company to maintain its potential for innovation and growth.

Staff turnover rate in the period 2013–2015 decreased gradually. That indicates a positive development in staff turnover. For companies, it is important to identify the reasons for losing their workers and, therefore, it is of key importance to pay more attention to employees who are considering changing their jobs and to understand their unfulfilled needs and expectations.

On the other hand, reasons for the leaving of employees are often results of the decision of their employer. In the monitored period 2013–2015, it was necessary to terminate the contracts of 20 employees. Another most common reason for leaving the company was inadequate salaries, as reported by workers. We recommend the company to identify the reasons for dissatisfaction of existing staff as well as the reasons for leaving of former employees. That will enable the company to properly identify the reasons for departure and to implement changes in the system of rewarding and motivation of employees that will eventually prevent further loss of human capital.

Indicator/year	2013	2014	2015
Total number of employees	170	169	176
Number of dismissed employees	29	21	19
Development of employee turnover (%)	16.93	12.54	10.77
Reasons for dismissal			
Employee's decision	5	8	7
Medical reasons	3	2	1
Other reasons	21	11	11

Source: [own data processing].

Table 4. Development of employee turnover.

7. Labour productivity indicator is an important signal of economic efficiency of company's performance. The results of the monthly labour productivity from sales and value added (during the monitored period 2013–2015) are shown in **Table 5**. Monthly indicator of labour productivity from revenues in 2015 had been falling slightly (decrease of € 42.06 compared to 2014) due to the increase in the number of registered employees by seven employees (as a result of hiring new employees). For the same reason, there was an increase in added value only by € 0.31 in 2015, compared to 2014.

The growth of labour productivity is important for the performance of the company because it leads to savings in expenditure of labour and labour costs. We recommend the company to focus on examining the relationship between labour productivity and the system of rewarding in the company, with special emphasis on the needs and particularities of human capital, because it is human capital in the company that is able to create value.

Indicator/year	2013	2014	2015
Gains (in EUR)	10,674,582	10,901,848	11,264,557
Added value (in EUR)	1,774,401	1,838,133	1,914,902
Total number of employees	170	169	176
Monthly labour productivity based on revenues (in EUR)	5232.64	5375.66	5333.60
Monthly labour productivity based on added value (in EUR)	869.80	906.37	906.68

Source: [own data processing].

Table 5. Development of the indicator of labour productivity.

8. Human capital value added (HCVA) is another important indicator of economic efficiency of human resources in the company, which reflects the participation of employees in added value (when the added value is created by revenue net of costs excluding labour costs—labour costs and employee benefits). It is presented in **Table 6**.

Human capital value added (HCVA) belongs among the indicators of the overall efficiency of utilisation of human resources. Thus, based on the research results, we may conclude that the analysed company uses its human resources effectively. Nevertheless, we recommend the company to continue in using its human resources effectively which will increase the company's performance. It is generally understood that via the abilities, skills and knowledge of its employees, the company can strengthen its competitiveness in the market. Quality technology available does not secure maximum performance because it is the employees who create added value in the company as bearers of human capital, and without employees, no technical achievements could be properly utilised.

Indicator/year	2013	2014	2015
Operating income (in EUR)	11,164,318	11,412,981	11,832,978
Operating expenses (in EUR)	11,099,868	11,353,813	11,773,160
Work expenses (in EUR)	1,447,716	1,521,791	1,604,130
Number of employees	170	169	176
HCVA (in EUR)	8895.09	9354.79	9454.25

Source: [own data processing].

Table 6. Development of the human capital value added (HCVA).

9. In 2015, the company invested a total of € 120,000 in the education and the development of human resources in the form of individual training modules. Financial resources in the amount of € 80,000 were spent on intensive training of top managers, and € 40,000 was invested into intracompany education. This sum included trainings for middle managers and individual

workers. The overall costs per training module were divided by the total number of participants in various target groups. Participation of at least 80% of the employees was a precondition to providing the training programme. Resources for internal training were divided into five training modules. These five modules are presented in **Table 7**.

After identifying the range of training modules and the number of participating employees, average investment in training and staff development were analysed. The average investment per training module was € 8000, and the average investment per participant was € 266.67. On the basis of research done, we can state that the company has an elaborate system of quality education. Moreover, the company seeks to continuously improve this system and spends quite a considerable sum of money on education of their employees.

No.	Training models	No. of people	Scope of education (hours)	Module content
1.	Leadership	30	24	Leadership styles, the advantages and disadvantages of different styles
2.	Marketing	30	7	Theory and practice of marketing
3.	Communication with customer	30	7	Communication skills, coping with stress, conflict
4.	Teamwork	30	16	Developmental stages of team building, knowing the differences of individuals and teamwork
5.	Conflict solving	30	24	Coping with stress, conflict with internal and external customers

Source: [own data processing].

Table 7. Training modules of intracompany education.

10. Human capital return on investment (HCROI) is a key indicator to measure the profitability, i.e. return on investment in human capital company, and is now considered to be the most used method to measure the effect (return on funds invested in human resources of the company). The results considering this indicator are presented in **Table 8**.

During the monitored period, the development indicator HCROI was slightly decreasing due to higher labour costs (labour costs and employee benefits), which has caused an increase in the total number of employees. Nevertheless, we can view the results of this indicator positively because the company's investment in human resources each year generated revenues. That means that the investments were profitable and returned. In 2013, the company earned € 1.045 for every euro invested in labour costs. In 2014 the amount was € 1.039, and in 2015 the amount reached € 1.037 for each euro invested in human resources. We can conclude that during the monitored period, funds invested in human resources of the company were effectively recovered.

The company is further advised to regularly monitor the development achievements of HCROI, because the indicator is a key method of measuring company's human capital.

This is mainly because such monitoring answers questions such as how much profit the enterprise will have much consumption cost, how many people are employed, how much to invest in labour costs (wages and benefits) and especially how it can improve the individual variables in order to increase their competitiveness in the market. HCROI allows to increase the performance of the company, as the company expects that the investments in their employees shall be returned in the form of a specific return, even though long-term nature of payback of investments into human capital should also be taken into consideration.

Indicator/year	2013	2014	2015
Operating income (in EUR)	11,164,318	11,412,981	11,832,978
Operating expenses (in EUR)	11,099,868	11,353,813	11,773,160
Work expenses (in EUR)	1,447,716	1,521,791	1,604,130
HCROI (in EUR)	1.045	1.039	1.037

Source: [own data processing].

Table 8. Development of the indicator human capital return on investment (HCROI).

11. It is important to note that not all of the benefits of investing in human resources are measurable in financial terms. There are also nonfinancial, i.e. qualitative, benefits that characterise improvements in communication, motivation, employee satisfaction, their morale and teamwork, which are also very important to the performance and success of the enterprise, even if their contribution is difficult to quantify. In addition to financial indicators of the efficiency of utilisation of human resources, the analysed company should take into account also noneconomic indicators such as the level of employee satisfaction with company benefits, with the process learning, and their level of motivation. These aspects can encourage people to perform better and are usually determiners intensifying the interest of potential job seekers.
12. Within quantification nonmeasurable indicators of efficiency of investment in human resources in 2015, we conducted questionnaire research on a sample of employees of the company. **Table 9** shows the list of those labour and motivation factors identified by employees as the most significant, thus increasing their working efficiency most effectively. Based on the preferences of the respondents, we have compiled a rank of 10 motivation factors that were the most preferred by top and middle management and by workers. Comparison of these two groups was conducted to determine whether, based on the similarity of the responses among various employees, an identical composition of motivation factors could be identified. This finding will enable the company to consider the amount of investment in various areas related to increasing the effectiveness of human resources.

Employees working in top and middle management considered base salary to be the most important motivating factor. They give priority financial security. Job security and super-

visor's approach occupied the second and third place, which indicates that in addition to financial security, these employees also need a sense of security, stability and background. Supervisor's approach plays an important role in the evaluation of employees. Work-related motivation factors connected with workload, financial evaluation and social factors influencing the situation and conditions in the workplace occupied lower positions in questionnaires. Although the employees working in top and middle management considered social relationships to be important, they considered them secondary to existential and financial factors. The reason could be that, in the working positions of top and middle management, employees do not tend to build close relations and put more emphasis on themselves and their own careers.

On the other hand, workers attributed the greatest level of importance of interpersonal relations, good teamwork, atmosphere and communication in the workplace. The reason could be that employees work in teams, know each other and are used to each other. Workers thus tend more to coherence and values other than just the financial factors and career development. For them, friendly working relationships are the most important. Financial rewarding and job security were secondary to working relations, perhaps because of the unstable economic situation in the Slovak economy. The superior's approach, recognition and fair appraisal system based on actual merit were also highly rated among workers.

13. Surprisingly, training and development was not rated among the most important motivators in none of the observed groups. Employees are probably interested in expanding their knowledge and expertise, and further education is considered a priority. They prefer other mentioned factors to motivate them. On the other hand, within the two

Top and middle management			Workers		
No.	Motivation factor	Mean	No.	Motivation factor	Mean
1.	Base salary	4.65	1.	Good teamwork	4.81
2.	Job security	4.50	2.	Atmosphere in the workplace	4.77
3.	Supervisor's approach	4.50	3.	Communication in the workplace	4.69
4.	Good teamwork	4.34	4.	Base salary	4.68
5.	Working hours	4.30	5.	Job security	4.65
6.	Fair appraisal system	4.29	6.	Fringe benefits	4.60
7.	Fringe benefits	4.27	7.	Supervisor's approach	4.60
8.	Atmosphere in the workplace	4.26	8.	Working hours	4.56
9.	Communication in the workplace	4.16	9.	Fair appraisal system	4.56
10.	Recognition	4.15	10.	Recognition	4.55

Source: [own data processing].

Table 9. Comparison of the most effective motivation factors.

groups that were compared, there were the same 10 motivation factors that more or less affected the satisfaction, motivation and performance of the human resources of the company. Based on the results acquired, we recommend the company, as a part of their overall strategy of investments into human resources, to focus on these motivation factors that enable higher and more effective contribution from investments in human capital.

14. Quality system of corporate benefits, declining employee turnover and the positive developments in the measurable indicators of efficiency of investment in human capital are the strengths of the investment process. All these proved that the analysed company invests in their human resources effectively. Weaknesses of investment in human resources in the analysed company lied in lower average wages of employees compared to the average wage in Slovakia, which can significantly influence the discontent and limited performance of employees. Investments in intracompany education and development appear to be at a relatively high level, but it is necessary to review the division of analysed groups to top management and other trainings (volume of sources per employee and the effectiveness of their usage). On the other hand, the enterprise has a long and elaborate system of education that is constantly trying to improve it. If the analysed company would focus on business issues that are most important to employees, such as the basic salary and the level of interpersonal relationships, they would provide employees with better working conditions and care. The company has also an opportunity to improve performance of its human resources, which will ultimately provide benefits to the company in the form of greater efficiency and competitiveness. Risks are associated with a lack of awareness of business benefits system and the possibilities for their further education and development, as well as insufficient level of their satisfaction and motivation to work better, which may adversely affect the overall performance of the company and become a serious disadvantage for the company's competitiveness in the market.

6. Conclusion

In today's dynamic times of intensifying globalisation, when many countries are hit by the financial crisis, a company should monitor new trends in their business environment [29–31]. Managers make daily permanent decisions to develop an effective strategy that will help them to succeed in a highly competitive environment [32, 33]. It is more and more true that in order to succeed, companies should provide and keep quality human resources [34]. It is generally understood that times when tangible assets were the most important assets of a business are long gone. Therefore, many businesses now focus on the knowledge and skills of their employees and the company as a whole, and these often become a source of their competitive advantage. Companies now invest in human resources and significant financial resources and seek appropriate opportunities for streamlining the development of their employees' potential. Human capital plays a crucial role in increasing the productivity and output of an organisation [35]. It is involved in the creation of the market value of the company and also represents

the most valuable source of company [36, 37]. This analysis of selected company proved the effectiveness of investment in human resources through the use of measurable and immeasurable indicators of efficiency of investment in human resources. The results confirmed that the wage system in the analysed company is set up so that the amount of wages is based on the turnover of the enterprise. The business has thus few possibilities to change this fact; however, it can focus on improving the system of corporate benefits, which can ensure retention and loyalty of employees in the company. For that reason, we recommend the company to obtain from their employees feedback determining whether the business benefits are set up to act as an incentive and arouse employees' interest. In order to prevent unwelcomed turnover, a company should try to analyse and identify the reasons for employees' dissatisfaction and for leaving of former employees. If a company is aware of reasons for dissatisfaction, it can evaluate and then implement necessary changes in system of rewarding and motivation of employees, which may prevent further loss of human capital. Labour productivity growth, both in sales and value added, is a key for the performance of the company because it leads to savings in expenditure of labour and labour costs. Based on the research conducted, we recommend to the analysed company to focus on examining the relationship between labour productivity and rewarding schemes and to pay special attention to the needs and specifics of human capital, because it is human capital in the company that is able to create value. Human capital value added (HCVA) had an upward tendency, which means that human resources create added value effectively. It is important for the company to pay special attention to this indicator because its rank indicates the overall efficiency of utilisation of human resources (value added by labour), and therefore we can conclude on the basis of these results that the company uses its human resources effectively. The company is further advised to regularly monitor the development achievements of HCROI, because this indicator is a key method of measuring human capital in the company. The enterprise expects that investments in its employees shall be returned, although long-term nature of the return on investment in human capital must be taken into account. What we consider to be a satisfactory outcome of this research is that when evaluating motivation in both the compared groups, respondents responded to the same 10 most important motivation factors, which more or less affect the satisfaction, motivation and performance of the human resources of the company. Based on the gained knowledge, we recommend the company to focus on (within their strategy of investing in human resources) the examined motivation factors that enable higher and more effective contribution from investments in human capital company. Finally, in order to efficiently use human resources in the analysed company, increase of employees' awareness about the system of corporate benefits and the possibilities for their further education and development would help to achieve the best results. All these items can significantly increase employees' satisfaction, their motivation and especially their work performance, which consequently positively translate into greater efficiency, prosperity and competitiveness of the company itself.

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Human Resources Management in Nonprofit Organizations: A Case Study of Istanbul Foundation for Culture and Arts

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Additional information is available at the end of the chapter

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Abstract

The aim of this study is to investigate the efficiency and importance of human resources management in nonprofit organizations. The understanding was included to the literature as personnel management at the beginning of the twentieth century and it turned into an approach as human resources management in the 1980s. It could be observed that many organizations, which deem the human as the most critical stakeholder, adopt a traditional way of personnel management in operating human resources. The employees play a key role in the success of an organization. For this reason, subjects such as recruitment, training, development, career management, performance appraisal, occupational health, and safety are the fundamental functions of human resources management. The study examines to what extent these roles are evaluated through a case study. The subject matter of the study is the most powerful culture and art foundation in Turkey. Compared to many other nonprofit organizations, the foundation actively performs a variety of services within a year worldwide. The fact that the total number of employees might rise up to 800, including the field personnel, indicates the need of a good functioning human resources management. The human resources practices of the foundation are examined and evaluated within that scope.

Keywords: human resources management, nonprofit organizations, culture and arts foundations, IKSÜ

1. Introduction

Human resources management (HRM) emerged as a concept in the nineteenth century. However, the way it is used today, in other words, its modernization started only after the 1980s.

The human factor has been ignored by the classical approach to organizations. The theoreticians of that approach aim to reach the best organizational structure. Therefore, they concentrate on maximizing the levels of activity and productivity. As a consequence of Hawthorne experiments conducted by Elton Mayo and his fellows between 1924 and 1932, the neoclassical period of organizations began. Through the data gained from the experiments, the role, needs, and behavior of people at an organization have been notified. During that period, when human relations started to be the focus of interest, the foundations of organizational behavior discipline were laid, yet human beings were still not considered as a resource. Studies continued to be performed under the name of personnel management. The need to take actions according to the requirements of the information era caused HRM to emerge in the 1980s.

The similarities and differences between personnel management and HRM often appear within the literature and one can summarize them into four main heads as follows:

- Personnel management considers the employees as a cost while to HRM they are the most valuable element.
- The target group of personnel management is the employees of the firm. HRM does not limit the group but it includes the potential candidates.
- Personnel management prioritizes the compliance with the rules and regulations by the employees. HRM, on the other hand, tries to build a common culture by determining general collaborative and participative principles on personnel relations.
- Personnel management is attentive, responsive, and short-termed, whereas HRM is directive and long-termed.

It could be suggested that HRM is a more complex concept than personnel management that ignores the outcomes of organizational behavior by paying attention only to the recruitment and payment of the employees who are the core of an organization. In contrast to personnel management, HRM helps the employees adopt organizational culture and raise organizational commitment by keeping the organizational behavior outcomes under control.

2. The role of human resources management in the organizations

HRM is interested in how to manage personnel in an organization more effectively so as to reach its goals. It works on actions that are taken, could be taken, or should be taken to provide the employees with high levels of motivation for more productivity. Association for Talent Development (ATD) defines nine main roles of HRM: training and development, organization and development, organization/job design, human resource planning, selection of personnel and insurance, research and information systems personnel, reward/benefits or aid, advice on personal problems of employees, and union/labor relations [1].

When the abovementioned definition of ATD is extended, one gets the following list [2]:

- Job analysis
- Human resources planning
- Strengthen the organizational culture
- Interpersonal relations
- Goal setting
- Recruitment and selection
- Orientation
- Performance appraisal
- Motivation
- Training and development
- Career management
- Wage management
- Occupational health and safety
- Industrial relations

HRM takes its place in organizational schemes in various ways. In large-scale organizations, HRM stands as a separate department, while in small ones, it is deemed as a group of functions fulfilled by various departmental managers. Since it is very difficult for a group of functions to carry out the abovementioned roles, it would not be wrong to suggest that such organizations maintain a modernized understanding of personnel management. Modernized personnel management could be defined as a management method that includes staff evaluation and education—although not as detailed as HRM does—into its mission in addition to carrying out the functions of traditional personnel management.

The human resources manager and the concerned staff are obliged to carry out aforesaid rules in accordance with the objectives of the organization. Task analysis is of first priority. Determining the tasks that are suitable with the organizational structure, arranging assignments, and responsibilities depend on the operations of human resources. What is more, human resources should plan its own managerial structure and each operation should be included in the plan.

Organizational culture is dynamic and it can change in time. It is significant that organizational culture is embraced by the employees and that they identify themselves with that culture. Once they do, conformity can be maintained within the organization, which can be observed by the external environment. Human resources management plays a crucial role in the establishment and enhancement of the organizational culture. Human resources, which ensure close relation with the employees, strengthen the organizational culture through orientation, training programs, etc. Human resources can also reinforce the relationship among the employees. Business meals, organizational activities, etc., contribute to the communication. In addition, designating common goals also empowers communication.

Candidates should be assessed according not only to their professional sufficiency but also to their ability to adopt behavior models that would improve efforts needed for organizational aims. Test applications that we mostly encounter during requirement process at institutionalized firms minimize making wrong choices. These tests are prepared in order to evaluate the psychological status, characteristic traits, and related efficiencies of the candidates. Another method used by large-scale organizations is group interviews.

Taking the right steps while choosing the candidates has a positive influence on the orientation process. Orientation programs are arranged to introduce the employees, physical environment, and activities of the organization as well as making the duties and responsibilities known to the newcomers.

Performance appraisal is conducted regularly by several organizations whether they have a human resources department or not. Performance appraisal, which is closely associated with organizational behavior, is carried out to see on what scale the employees take responsibility, their competence, appropriateness for the job description, and to see if they have positive tendencies. Some organizations conduct the assessment twice a year while some do it only once a year. Performance appraisal is closely related with motivation. If the test results turn out to be good, the organizations might reward the employees to promote them. Rewards could be given as wage increase or as presents.

Another practice that reinforces motivation is training and development programs. Training programs could be coordinated so that the employees can adopt and improve appropriate behavior or their motivation and organizational commitment can be established. Training and development programs can either be specific to individuals and department or to the whole organization.

Career management is a subject around which human resources department should deal with each employee as human resources can determine career opportunities, help them improve their knowledge and skills, and make them acquire necessary skills for a position once it is available.

Wage management can be a part of the human management department while it can also take place in the administrative department. It depends on how the institution is organized. Compensation and premium payments are among the subjects of wage management.

Occupational health and safety is one of the legal responsibilities of human resources and as a department it has to inform the employees on that.

Unions constitute the basis of industrial relations. They protect the social and legal rights of the employees and engage in dialog with employers on these subjects.

3. Human resources management in nonprofit organizations (NPO)

Nonprofit organizations (NPO) usually function within the fields of art, culture, aid, education, politics, religion, grants, and environment. They usually serve the needs which cannot

be fulfilled by the state completely and when there is a social gap. Their priority is to provide the service that cannot be given by the state and the private sector [3].

There are three different dimensions to the importance of HRM in NPO. The first being the personnel services is out of the context of taking the employees for physical capital [4]. The employees of for-profit organizations are usually considered as physical capital, while NPO sees them as the most important values of the organization. The second dimension is the fact that the employees of NPOs are affected by intrinsic values and that they are motivated by these values. The missions of organizations, the democratic nature of organizational culture, and the importance given to individuals can be counted as the intrinsic values [5]. The dimension is that employees are the most critical stakeholders regarding the strategic plans of NPOs [4]. As it can be inferred from these three dimensions, human factor underlies the sustainability of NPOs. For this reason, human resources stand as the primary element in such organizations.

Ridder and McCandless separate HRM that is applied in NPOs into four and they name them as administrative, motivational, strategic, and values-driven [6]. The research that investigates into these four types presents the focal points of HRM practices in NPOs. Administrative HRM focuses both on strategic orientation and human resource base at a low level. The reason why it is called administrative is that the standpoints of NPOs toward future are either weak or nonexistent. They often do not tend to invest in their employees or they do not possess the opportunity to do so. On the other hand, motivational HRM focuses on strategic orientation at a low level while it concentrates on human resource base at a high level. The employees working at NPOs are motivated in a different way than those at for-profit organizations. The latter are motivated through financial rewards while the former prefer to be rewarded with individual ones that can contribute to their personal development. Strategic HRM focuses on human resource base at a low level and they approach to strategic orientation with a higher level. The strategic goals of NPOs are revealed through their missions and values. Strategic HRM is based on improving those goals, which might, however, have a negative influence on the employees. Value-driven HRM focuses on both strategic orientation and on human resource base at an equally high level. Value-driven HRM invests in the advancing of the skills of the employees and it uses the power of its mission to impress and motivate the employees.

It is a common and a usually verified thought that NPOs do not have a professional approach to HRM. Nonetheless, some NPOs possess the understanding of management that a large-scale profit organization would have. Although they are not at the financial level of competing with for-profit organizations, their viewpoint toward management is quite professional and institutional. When culture and art foundations are studied in terms of NPOs, their activity fields can easily be notified. The usual NPOs generally have one type of activity. On the other hand, culture and art foundations carry out several projects throughout a year and these projects include activities such as film festivals, music festivals, award ceremonies, biennials, theater festivals, and so on. In addition to art projects, culture and art foundations do researches and make publications to raise awareness within the society. Hence, it could be suggested that culture and art foundations should be evaluated separately from NPOs. Accordingly, this chapter chooses a culture and art foundation as its case study.

4. A case study: Istanbul Foundation for Culture and Arts

The case study, which intends to identify on what scale the HRM functions, was carried out at Istanbul Foundation for Culture and Arts (IKSV). In addition to being the strongest culture and art foundation of Turkey, IKSV contributes to the economy of Turkey at a great deal by means of international projects. As one of the prominent foundations in the world, IKSV is explored according to human resources procedures, principles, and rules of this procedure through the investigation of regulations, forms, and an in-depth interview conducted with the human resources director and human resources specialist. The interview was semistructured and exploratory. A core of semistructured questions was used to explore specific topics in detail. Interviewees were free to express their own ideas. The interview lasted around one and a half hours and was taped, transcribed for qualitative analysis, and written up as a case study.

4.1. Foundation profile

IKSV was founded in 1973 with the goal of offering the Turkish public opportunities to experience the finest examples of cultural and artistic production from around the world and learn about new initiatives and movements. Further objectives included introducing the world to Turkey's cultural and artistic assets and transforming Istanbul into a major international center for culture and arts. The general objectives of the foundation are: to make Istanbul one of the world's foremost capitals of culture and the arts; to create continuous interaction between national and universal values and traditional and contemporary values via culture and the arts; and to contribute actively to the development of cultural policies. In addition to organizing festivals, biennials, and events in Turkey and abroad, IKSV is involved in conserving traditional arts and cultural heritage, encouraging and facilitating artistic production in diverse disciplines, and contributing to the development of cultural policies [7]. IKSV offers a variety of activities such as regular music, film, theater and jazz festivals, the Istanbul Biennial and the Istanbul Design Biennial, singing contests, grants, and translation awards, as well as taking part in culture and art activities abroad. According to the activity report 2015, 835,000 people participated in IKSV activities [8]. Projects of IKSV are not limited to the abovementioned activities. IKSV carries out cultural politics studies and each year it publishes a report on different subjects in addition to arranging workshops, conferences, and symposiums in cooperation with other organizations.

4.2. Human resources policies

IKSV carries on the aforesaid activities with its full-time staff comprised of 80 employees. This number is increased together with seasonal recruitment up to 35 people according to the annual activity calendar. Field personnel are also employed during the activities, which mean the total number increases up to 800. It is the department of Human Resources and Administration that establishes the personnel cadre and takes on the roles of HRM. Apart from the department director responsible for HRM, there are two other people working at the department. Human resources management at IKSV had been executed by functional groups until it became a department in 2009 as a necessity due to the extension of the foundation and

to the increase in the needs of employees and in the importance given to career management [9]. IKSv's human resources policy is developed in line with the essential goals of the foundation. The foundation declares that it chooses its employees from people who are open to the world and to improvements. Parallel to its values, IKSv sees providing a participatory and transparent working environment as an indispensable part of its human resources policy and thus gives its employees career and development opportunities [10].

4.3. The role of human resource management in IKSv

The strengths and weaknesses of the foundation are examined in terms of HRM and its 14 functions:

- **Job analysis:** Job analysis is the systematic gathering and evaluation of trustable information on the features of the job [11]. Instead of placing the employee in accordance with the job, HRM is interested in positioning the right employee to the right job. Job analysis is the whole of operations aimed at determining: each positional work, duty, and responsibilities; methods and techniques used in practices, tools and equipment, knowledge, skills, and abilities required by the job, the products, services, and working conditions. While job analysis stands for an abstract process that gathers the information on jobs, job description is the concrete outcome of this information. Human resources departments turn the job analysis into job description after completing it. IKSv makes the job analysis of each position and puts the analysis into writing as outputs. The job description forms are uploaded on the Internet during the recruitment process. The job description forms are presented to the employee once they are recruited. Job descriptions may vary according to the extension of duties and annual goals. Each change is declared to the employees in writing.
- **Human resources planning:** Planning constitutes the foundation of administrative functions of organizations. Planning is the assignment of resources necessitated after the determination of the vision and the mission that is followed by figuring out the functional goals and related strategies following. Likewise, human resources planning is a process in which the employees, being appropriately qualified and sufficient in number, are: benefited at available timing and in accordance with their abilities; trained and developed in compliance with the needs of the organization; and evaluated, awarded, and given the conditions to carry out productive work. If a failure occurs in the human resources planning, the turnover scale in work force might increase or there might be an overbalance in the number of employees. IKSv pays high attention to planning. It retains the cadre of 80 people and does not extend this number unless it is necessary. The turnover scale in NPOs of today varies from 15 to 30%. For example, European Cultural Foundation (ECF), which operates cultural projects since 1954, declared its turnover scale as 15.8% [12]. When IKSv is concerned, it is around 5%, which shows how IKSv is successful in human resources planning.
- **Strengthen the organizational culture:** Organizational culture is an assembly of thoughts that a group discovers, establishes, or improves to solve the problems that it faces during the adaptation to the external environment and union with the internal environment [13]. Each group has its own values, norms, beliefs, and goals. The fact that the employees are attached to the organizational norms and that they have common values which constitute the

organizational culture. The managers undertake the most significant role in the employees' readiness to embrace organizational culture. Arranging orientation programs for newcomers and socialization events for the staff are one of HRM operations and it is the human resources director who makes the employees adjust themselves to the organization. The human resources department at IKSv was established in 2009. However, there has not been a quantitative survey conducted to evaluate the level at which the employees adjust themselves to the organizational culture since 2009. The qualitative evaluations revealed that each employee is attached to the institutional values. This result could be interpreted as a deficiency in terms of HRM. During the interview, however, the human resources director indicated that they had realized it and that they are planning to carry out a survey which would evaluate the characteristics of IKSv personnel at the second half of 2017 [9]. The survey is aimed at finding out the level at which employees are adapted to the organizational culture and to what degree they embrace it in quantitative terms.

- **Interpersonal relations:** Interpersonal relation is an important outcome organizational communication. Organizational communication is established in order to achieve organizational goals and to accomplish objectives. There are two ways to generate international relations. The first one is the formal communication that is defined through the hierarchical structure within the organization. The second one is not formal and it occurs among the employees free from their positions [14]. The most important tool of organizational culture is to regulate relations and make the organizational goals meet the individual goal on common grounds. HRM builds up the formal communication through job analysis in order to improve interpersonal relations. The communication that is not formal can also be controlled by HRM. Events that are arranged within the organization, educational programs, which are open to all employees and similar HRM activities are supposed to contribute to the development of interpersonal relations. To illustrate, IKSv carries out educational programs with the participation of whole staff in order to advance interpersonal relations.
- **Goal setting:** Goal setting theory was introduced by Edwin Locke in 1968 and it approaches toward the reason of behavior as the individual's conscious aims and intentions. Aims have three features: clarity, difficulty, and commitment degree. Some research show that goals liberate individuals and lead them to success while some reveal that difficult goals cause stress and prevent the individual from concentrating on things other than the goal. Instead of such contradictions, goal setting theory is supported by many researches [15]. IKSv designates job targets to its employees in accordance with the strategic plan. It tests to what degree these targets are achieved through performance analysis. Clear goals are better than unclear and general ones. Thanks to clear goals, the employees can be evaluated objectively.
- **Recruitment and selection:** It can be observed that organizations follow different procedures during recruitment and selection processes. Therefore, it is difficult to define an ideal and one type of recruitment process. Each organization manages the process in accordance with its set of regulations. As indicated in its human resources policies, IKSv defines its general expectations from the candidates as follows: "In line with the importance given to the dissemination of arts and culture on the local and international level, the Foundation expects its employees to be interested in issues of arts and culture, have a good command

of foreign languages (primarily English) and good communication skills" [10]. The foundation first tries to supply the vacant positions with internal resources, and if it fails external ones are consulted. When successful applicants are invited for an interview, they take the personality inventory test. The first interview is conducted by the human resources director and the features that are examined are: personality traits and competences, professional sufficiency, sectorial knowledge, organizational compatibility, physical well-being required by the position, and foreign language levels. Candidates who receive positive feedback have the second interview with the departmental executives. They are examined for a second time in terms of personality and professional traits. Candidates who are deemed to be successful at the end of both interviews are recruited. The fact that the foundation applies personality inventory tests during the process is important as it shows how the aspect of organizational behavior is taken into consideration.

- **Orientation:** The orientation programs to which the newcomers participate are crucial in terms of organizational communication and adaptation process. IKSVM leads the orientation programs in two different sections: the ones designed for the field personnel and others for the permanent personnel. The former lasts for 2 days, during which job descriptions are reviewed and the participants are introduced with the general structure of the foundation and the managers whom they are going to work with. What is more, the field personnel are trained about how the work operates by the human resources department. On the other hand, the permanent personnel members are introduced with the organization and details about their own departments during the orientation process. They start working officially after meeting their colleagues and they spend 2 hours working with each department head at IKSVM within the first week.
- **Performance appraisal:** Performance appraisal is one of the important elements of a successfully organized HRM system. Performance appraisals of today are based on competence. The traditional evaluation tests used to be short-termed. They predicated on results and rewarding system. Competence-based performance appraisal, however, is related to the future of the organization. It is long-termed and oriented toward development. It is an incontrovertible fact that the organizational success comes forth provided that each employee, from senior executives to the workers at lowest rank, performs above a certain level. IKSVM has developed a combined performance appraisal system using both traditional and modern approaches. That system evaluates two basic categories: job objectives and competences. Therefore, they can identify the strengths and weaknesses of the employees. The performance evaluation forms consist of three main parts: job profile, job objectives, and competences. The job profile part should find out whether the employee takes the responsibilities required by the job. The part on job objective is divided into two: the objective determined in accordance with the strategic planning and the individual's objective within his own routine. That second part designates to what level the objectives are fulfilled. The third and the last part is also divided as general competences and managerial competences. Each article of the test is scored between 1 and 7. First, the employees evaluate themselves and later they are evaluated by their managers. The fact that the evaluation is not handled solely by a top executive prevents subjectivity from getting involved into the process. IKSVM thinks that objectivity in performance appraisal plays an important role in organizational success.

- **Motivation:** Motivation is defined as employees' behaving according to their desires and wishes in order to achieve their goals [16]. It plays a significant role in leading the behavior in a specific situation to fulfill needs and reach goals. Motivation needs to be considered as a continuous process rather than a mission to be completed. The motivation resources of employees working at NPOs are different from those at for-profit organizations. Although financial rewarding motivates the individuals, the employees at NPOs are not in need of such rewarding as their senses of social responsibility are predominating. IKSV generates motivation by means of career development, educational opportunities, promotions, participation to culture and art affairs, and seminars abroad in addition to financial rewards.
- **Training and development:** Organizations need to make constant effort to improve themselves so that they can benefit from their employees effectively. That becomes possible when educational programs to advance the abilities of the staff are arranged and when they are evaluated and provided with counseling in terms of their performances when needed. It is possible to consider training as individual, organizational, and managerial advancement. Individual trainings aim to increase the possibility of reaching goals and it is the process during which the behavior, knowledge, skills, and motivations of employees are changed and improved. Organizational trainings constitute the whole of managerial tools whose purpose is to contribute to the activities, effectiveness, and productivity of the organization. If management is development, then managerial training is the course in which managers acquire experience, skills, and achievement to stay as successful leaders of the organization [15]. IKSV arranges its training programs by approaching it from three different angles. In addition, IKSV offers trainings that are open to everyone and it aims to give voice to different views by inviting experts from different disciplines as speakers (journalists, economists, etc.). Individual trainings are organized more often according to the results of performance appraisal. Likewise, organizational trainings are related to the outcomes of performance analysis and they are operated with the full participation of the staff. If there is any weakness in the managerial and organizational outcomes that are detected among most of the employees, trainings are initiated about the subject. To illustrate, in case there occurs a problem about time management, trainings are formed according to that. The foundation does not direct the trainings to employees with weak performance only but it counts everyone in to reinforce their improvement. The managerial development trainings for senior executives are in form of coaching practices. IKSV runs training programs for the personnel from the field as well. The trainings provided should not be seen as limited to job descriptions or occupational safety. The foundation gives importance to the fact that trainings contribute to field personnel's career and future occupations. For instance, in 2016, they were offered a training program in which they learned how to treat people who are visually impaired.
- **Career management:** Career management is a form of planning for career development practices, for helping employees analyze their competences and interests. Starting a career is one of the important needs of the employees and it can be used as a tool in the realization of organizational objectives and goals. In organizations where career management is not used effectively employees do not see a future for themselves and they tend to leave the organizations, which also has an influence on organizational efficiency, productivity, and performance [2]. A lot of organizations today run their career management plans by using

different methods. IKSv actively operates its career management practices. Training is also a part of career management but apart from that, IKSv offers mentoring, coaching, and job rotation within the scope of career management. Mentoring practices are operated as a project with the support of European Mentoring and Coaching Council (EMCC) Turkey and cross mentoring is applied to five culture and art organizations located in Istanbul. The project, as a new experience both for the mentee and the mentor, contributes to career development. The other career management practice is coaching, which is still being planned by the foundation and will be carried out with the support of professionals from different sectors. It is thought that coaching will bring be beneficial for establishing different disciplines and standpoints. Job rotation is, however, frequently applied within the foundation. IKSv is going to consult job rotation method during the activities run within the year. Personnel mobility comes up depending on the intensity of the activities. For example, a staff member working in Istanbul Design Biennale team might take place Istanbul Film Festival if there is no workload for the former or when if it is still being planned. Another example is the mobility among administration and activity departments. Someone in charge of recruitment and training operations at human resources department might be given the responsibility to coordinate artists' assistants throughout a month at Istanbul Biennale.

- **Wage management:** Wage management is a process that involves establishing a payment system which is rightful and accepted by the employees, which motivates the employees and attracts efficient ones and which strengthens their organizational commitment while keeping the expenses at an optimum level. Wage management at organizations includes seniority subsidy, efficiency-based payment, performance-based payment, profit share model, premium and bonus model, etc. Since IKSv is a nonprofit organization, its financial sources are limited, and therefore, it does not have an operating wage management.
- **Occupational health and safety:** Occupational health and safety are two different concepts but they constitute a whole which aims to protect the health and lives of the employees by avoiding professional dangers like occupational illnesses and accidents. Occupational health stands for rules needed to maintain a healthy environment while occupational safety means abolishing every threat against the employee's well-being and physical integrity with the help of required technical rules [17]. IKSv regularly carries out that operation of HRM. It was observed that all precautions are taken and that units and practices for occupational health and safety exist. Both the permanent personnel and the field personnel are trained about security by experts. They learn how to behave and what to do in cases of emergency like natural disasters, terror attacks, accidents, and other possible risks by experts of occupational health and safety.
- **Industrial relations:** As the foundation does not take place in a union, a related observation could not be made on that article.

5. Conclusion

HRM supports basic elements helping organizations reaching their goals. The main resource of organizations is human beings and organizations cannot exist without them. They are

needed by each unit at the organizational schemes of organizations and HRM meets the need for human factor. To what extent HRM fulfills its duties and responsibilities affects the success of units and accordingly of the organization directly. HRM needs to observe the organizational behavior outcomes closely. Internal environment factors are as important as external ones in providing organizations with sustainability. Once human resources planning is established through a correct analysis of organizational behavior outcomes, the internal environment is kept at balance and that contributes to organizations' sustainability. While for-profit organizations consider employees as the physical capital, they are the most important parts of an organization and the most critical stakeholders to NPOs. It is a contradictory situation to observe that organizations giving high importance to human factor are weak in terms of HRM. The NPOs that are effectively practicing the aforementioned 14 articles of HRM prioritize the outcomes of organizational behavior. However, studies that are completed so far are based on qualitative observations. The quantitative studies of HRM practices are limited to the tests that candidates take during the recruitment process. Even though performance appraisals are considered to be quantitative, they are often shaped subjectively mainly with the evaluations of executives at a lot of organizations. It has been observed that the aspect of behavior is prioritized at the foundation whose HRM roles are examined. The plan to evaluate the outcomes of organizational culture, organizational commitment, leadership, and motivation outcomes quantitatively has been completed and it is going to be implemented. What is more, career management is effectively executed at the foundation which gives importance to both organizational and individual values. When employees are supported by trainings, mentorship, and coaching programs, a quantitative increase in motivation, emotional attachment, and adaptation to the organizational culture are observed.

When the organization is examined according to the HRM types indicated by Ridder and McCandless [6], its way of operating corresponds to value-driven HRM and motivational HRM. They both exhibit low focus on the strategic orientation and a high emphasis on the human resource base. In addition, administrative HRM, just like strategic HRM, exhibits high focus on the strategic orientation IKSV, and they both exhibit a low focus on human resource base.

The evaluations made about the foundation could not be tested empirically. The fact that human resources practices cannot be related to quantifiable values such as growth, productivity, and efficiency and that there are not explanatory models in that context are deficiencies within the fields of organizational culture and HRM. Regardless of those limitations, it was observed that IKSV carries out the basic HRM roles professionally when it is investigated as an NPO and in terms of variety in culture and art activities and NPO. It was detected that the missing parts were being substituted within the scope of human resources planning. The HRM practices of the foundation are exemplary for other NPOs.

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Labor Relations: Contemporary Issues in Human Resource Management

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Abstract

In this chapter, we examine the labor relations through the role of trade unions, collective bargaining, wages and benefits across the European Union. We conclude that labor relations have a direct influence on the labor market, designing the lines for taking decisions in organizations, but also, by governments. Our argumentation explains the relationship between employers and employees through legal rights (established by the law), negotiation process, collective bargaining, 'actors' in this process, wage and benefits, social and security protection.

Keywords: negotiation, collective bargaining, trade unions, wages and benefits, social protection, European countries

1. Introduction

Today's workers want more than a salary, and they want additional benefits to enrich their lives, to increase their importance at workplace and to be valuable for the organization. The labor relations are more than a static interpretation of contract between an employee and an employer. Means a sum of connections between skills, abilities, values and opportunities at work. Employee role in organization has grown in importance and variety over the time. For them, the labor relations become a way to live, to self-development and to obtain recognition. The employers realize that to keep motivated and committed people in organization need more than a salary. It is about benefits in financial terms, but, also, talking about safety at work, security, rights and duties. Benefits are necessary to assure the job satisfaction.

Labor relations are the term used to define the process between employers and employees, management and unions in order to make decisions in organizations. The decisions taken

refer to wages, working conditions, hours of work, and safety at work, security and grievances. Why is an important topic for Human Resource Management?

It is known that wage and other economic benefits for employees represent not only their current income, but also the potential for economic growth and the ability to live comfortably during the active life and after the retirement. Wage is considered as an important economic variable for competitiveness. The world economic crises have shown that the role of wages in sustaining demand in a context of stagnant growth and very low inflation is very important and needs a particular attention from the part of management boards, government and employees, through their representatives.

Wages and benefits received by employees for their work represent the compensation or 'the price paid by employers for their workers services'. This requires a specific analysis due to the fact that the work is realized under a contract and requires an active commitment of the workers [1]. From this perspective, the wage issues require a specific analytical framework because the work cannot be separated by the human beings, and according to the several studies, the level of payment and economic benefits of employees are positively related to employee satisfaction at work.

Wage and salary are considered as most important and difficult collective bargaining issue. In the employment relationships, the collective bargaining process has several implications at individual levels, for the employers, as a determinant of production and labor costs, among employers on the competition market, between employers and employees as a distribution of added value, for employees, as a key factor for their income and sustainability on a dynamic labor market, among employees, expressing the solidarity through the 'wage floors' applying to different groups of workers at a given bargaining level.

The parties could negotiate the total package of wage and benefits in individual terms or in collective terms, but reflecting the aim of labor contract: The employees must be paid for their work, and the employers must receive qualitative work.

Also, the negotiations reflect the interest of all the parties involved: managers, employees through their representatives and government.

In this chapter, we examine the labor relations through the role of trade unions, collective bargaining, wages and benefits across the European Union. We conclude that labor relations have a direct influence on the labor market, designing the lines for taking decisions in organizations, but also, by governments. Our argumentation explains the relationship between employers and employees through legal rights (established by the law), negotiation process, collective bargaining, 'actors' in this process, wage and benefits, social and security protection.

For the policy-makers to find a balance between assuring the rights and promoting competitiveness in their organization, also to make their employers more productive is a key priority, drawing on a range of policy measures. Important aspects cover wage settings, collective bargaining, employees' representativeness, safety and security needs, working hours and contracts. All these influence the policies and the labor market flexibility. The employees find satisfaction in being able to perform tasks adequately and are more willing to perform a better job, increasing the involvement at workplace and become more implies [2–5].

2. Data and methodology

The necessary data to conduct our research were collected from various statistics, official reports, databases of the worker-participation.eu and ICTWSS: *Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts*. The analyzed countries are EU-28, grouped in five analytical clusters, defined by European Commission as industrial regimes [5], namely: (a) North Europe: Denmark, Finland, Norway and Sweden; (b) Central-West Europe: Austria, Belgium, Germany, Luxembourg, the Netherlands and Slovenia; (c) South Europe: France, Greece, Italy, Portugal and Spain; (d) West Europe: Cyprus, Ireland, Malta and the United Kingdom; (e) Central-Eastern Europe: Bulgaria; Czech Republic; Estonia; Latvia; Lithuania; Hungary; Poland; Romania and Slovakia.

The main indicators taken into account are collective bargaining coverage, trade union density, collective bargaining coordination index and collective bargaining centralization. The chosen period was 2013–2014 for the analyzed countries, except for Portugal where no data were available for collective bargaining centralization. Also, for Cyprus, we used the data available only for the south part of the county.

Table 1 presents the descriptive statistics for included variables, the number of analyzed countries, the minimum and maximum values for the chosen indicators, the mean and standard deviation.

For the sample of 28 EU countries, we studied the bivariate correlations between the variables, using Pearson correlation coefficient and the associated p values. A value lower than 0.05 dictates the significance of the used variables, while the correlation coefficient values are a number from –1 to 1, which determines whether the sets of data are related. The closer to 1 the more confident we are of a positive linear correlation and closer to –1 the more confident we are of a negative linear correlation. The person correlation values closer to zero indicate the lack of any relationship between the variables.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	std. deviation
Collective bargaining coverage	28	12.50	98.00	59.3036	26.85535
Trade union density	28	8.00	74.00	30.8214	19.33344
Collective bargaining centralization	27	1.00	4.60	2.0552	1.00857
Collective bargaining coordination index	28	1.00	5.00	2.5357	1.29048
Valid N (listwise)	27				

Source: Authors' calculation.

Table 1. Descriptive statistics.

For collective bargaining coverage and trade union density, we calculated the mean for the chosen period based on the data provided by worker-participation.eu, while, for collective bargaining coordination index, we used the estimated index values based on a five-point scale [6]. Collective Bargaining Centralization is an indicator calculated by Visser as: $\text{Level} = (\text{Frequency or scope of additional enterprise bargaining (FAEB} = 0.3) + \text{Articulation of enterprise bargaining (AEB} = 0.3)) / 4 (= \text{max value}) + (\text{AEB} + \text{Derogation (DER} = 0.3) - 1) / 5 (= \text{max value})$, and the index scores are between 0 and 3, in which '0' represents the lower value and '3' the higher value [6].

3. Wage systems and institutions: unions and management wage concerns

The wage systems and institutions that served the issue are deepening linked by the market, legislation and industrial relations. The market is the factor, which reflects the macro- and microequilibrium between the labor force and state, the differences in labor and cost productivity. The legislation has the relementation role for work and the conditions to made it and put into provisions the relationships between employers, employees and government. Setting the minimum wage is a requirement for a special category of workers, and an objective for the policy of governments.

The total economic package should be negotiated between employers and employees by their representants to estimate accurately the total cost of the contract of work, in term of salary and benefits. The collective bargaining has different dimensions and indicates, in a general way, how the conditions and requirements of the work interact with legal and market regulation. Even if the collective bargaining is independently and autonomous than the legislation, the results of the negotiations should be in accordance with the legal provisions.

The collective bargaining process is the actual negotiations carried out by the parties to reach an agreement. Artful use of this process can improve the relationship between an employer and employees and has as result a contract for both parties [7, 8].

The bargaining process implies the representative of employees, the management representatives. Successful negotiations depend on the knowledge and skills of the negotiators, which should prepare their side's interests in the bargaining issues. They should make realist proposals and within the framework of negotiations. The bargaining items could be: mandatory, as rates of pay, wages, hours of employment, overtime pay, holidays, pensions, insurance benefits, employee security, job performance, management-union relationship, subcontracting or relocating union members' work, medical exams and permissive, as indemnity bounds, preferential hiring, pension benefits off retired employees, use of union label, employer child care, plant closings.

Concerning these issues, many changes have been noticed in industrial relations over the last decade due to long-term development trends caused by an ever-changing socio-economic environment. The trends shifts occur especially since the beginning of the recent economic and financial crisis and their impact varied across European Union Member states.

In the table, we group the EU member states in five analytical clusters, defined by the European Commission as industrial relations regimes or arrangements: (a) North Europe: Denmark, Finland, Norway and Sweden; (b) Central-West Europe: Austria, Belgium, Germany, Luxembourg, the Netherlands and Slovenia; (c) South Europe: France, Greece, Italy, Portugal and Spain; (d) West Europe: Cyprus, Ireland, Malta and the United Kingdom; (e) Central-Eastern Europe: Bulgaria; Czech Republic; Estonia; Latvia; Lithuania; Hungary; Poland; Romania and Slovakia. These countries are grouped in relation to some collective features related to union density, bargaining coverage rates, employee representativeness and role of the state and social partners in the industrial relations [5].

Trade Union trends have not been stable across the EU member states, and many differences are noticed both in the change of employers' density and the level of unionization. In the literature are underlined different types of trade unions, starting from those highly concentrated and reinforced, (just one confederation in Ireland) to those intensive fragmented (12 confederations in Italy) [9]. However, if the trade unions are grouped under a large confederation (see, for instance, German Confederation of Trade Unions), the absolute number can deceive us in establishing the actual level of system fragmentation. Within the Nordic countries, the higher proportion of employees in Unions is registered in Finland (74%), followed by Sweden (70%), Denmark (67%) and Norway (52%). In the Central-West Europe, trade unions tend to group up in one (Austria: ÖGB), two (Luxemburg: OGB-L and LCCB; the Netherlands: FNV and CNV) or several union confederations (Slovenia: seven confederations with ZSSS dominant). Since the fall of manufacturing employment, Eastern German unification, ideological competitiveness and socio-economic factors, this region predominant trend of employers unions' density has gradually fallen in the recent years. In Southern Europe, the trade unions are formed and grouped together in accordance with political beliefs and religious views. The lowest regional and EU-28 level are registered in France (8%), country that actually benefits by strong union support in elections for employee representatives and poses the capability to mobilize a large number of workers. The other southern European countries proportions are situated between 19 and 35% of unionized employees from total workers, with the higher percentage recorded by Italy where the number of trade unions is the largest of any countries in the EU. In the western countries, like the United Kingdom and Ireland, trade unions grouped in one or two confederation coexist with individual independent unions that are enforced with considerable power and influence. With around half of all employees belonging to unions, Cyprus¹ and Malta occupy the first two positions from the Western European Countries. Those are characterized by the existence of two large unions' confederations in each country (PEO and SEK for Cyprus and GWV and UHM for Malta), with a large spectrum of workers, although in Malta teachers, bank employees and nurses are grouped in independent unions. The Central-Eastern Europe union density has fallen since the transition to a new economic and political system in the 1990s. Nowadays, the Central-Eastern system is characterized by the existence of one up to six union confederations and, in some cases (Slovakia for instance), by individual unions marked with significant autonomy and impact.

The relative change in employees and trade unions trends is a consequence of the recent economic and financial crises impact. These recent developments can be explained through

¹The data is available only for the south part of the island, officially recognized by the state government.

factors like low level of employment of young people, part-time hiring, together with the higher number of fixed-term contracts which dropped the number of unionized employees since 2008 in many European countries. Recent developments appear to have slowed, at least for the moment, the downfall of the trade union density.

In European industrial relations or arrangements, collective bargaining represents a fundamental element through which employers and their organizations, on one side, and trade unions, on the other, can typically determine wages and working conditions, and relations between involved parties. Collective bargaining coverage represents 'an indicator of the extent to which the terms of workers' employment are influenced by collective negotiation. It is calculated as the number of employees covered by the collective agreement divided by the total number of wage and salary-earners' [10]. The contrast between the European Member states is particularly strong with regard to collective bargaining coverage. In North, Central-West and South Europe, the coverage rate is above 60%, with the exception of Luxemburg. Between West Europe and Central-Eastern Europe, only Malta has a coverage rate above 60%. The lower collective bargaining coverage is registered in Poland (10–15%) and the United Kingdom (29%). In the literature, coverage rates are correlated with the employers' density rates, and in several countries like Germany and the Netherlands, the two concepts are connected and associated one with other. As Carley [11] noted 'in these countries, employers who are member of employers' organization are generally bound by collective agreements. In other cases, coverage rates go beyond employers' density rates due to statutory extension procedures that are supported and legislated by governments. This is the case in France, where statutory extension compensates for low trade union membership levels [11].

Table 2 also shows that the level at which collective bargaining takes place also differs across EU member states. For instance, while for North, Central-West and South Europe groups, the sector is the main place where negotiations between the involved parts occur, in the West (with the exception of Cyprus) and Central-East Europe, different standards are applied and the bargaining processes between employees and trade unions are at company level. Although this is the overall trend in the analyzed groups, some of the EU countries have a mixed level approach (Luxemburg, the Netherlands, Slovakia), and collective bargaining takes place at both industry and company level or other different styles are adopted (in Belgium, negotiations take place at the national level, while in France and Spain, we have three levels procedure: national, industry and company/organization).

In the majority of the European member states, the employee representation at the workplace is through unions, except the Central-West area where the workplace structures are represented by works councils (with the exception of Slovenia dominated by union structure, and Belgium and France with both unions and works council).

North Europe, Central-West and South Europe have employee representation at board level, with the exception of Belgium (not featured at board level, apart from a handful of publicly owned organizations) and Italy (no right for employee representation at board level although a proposal have been included in the *Jobs Acts 2002* legislation). In the West Europe, just Ireland accepts employee representation but only in the state-owned sector. In the Central-Eastern

Regime dimension	North Europe	Central-West Europe	South Europe	West Europe	Central-Eastern Europe
Trade union density	65.75	30.66	21.20	40.75	16.33
Collective bargaining coverage	82.25	79	81	46.5	29.61 (*)
Main level of collective bargaining	Sector	Sector (Belgium: national; Luxemburg and the Netherlands: companies)	Sector (France: sector and companies; Spain (new law gives precedence to company agreements)	Company (except Cyprus)	Company (Romania and Slovakia: sector and company)
Leading employee representation	Union based (Norway: "works council" exist in some companies but their role is to improve competitiveness)	Works council based (*except Slovenia—union dominates and Belgium: both unions and works councils)	Union based (France: union and works council; Greece and Portugal: works council exists just in theory; Spain: works councils—although they are dominated by unions)	Union based (Ireland and the UK does not exclude other structures)	Union based (**) (Poland and Slovakia: union and works councils)
Employee representation at board level	Yes: (state-owned and private companies)	Yes (state-owned and private companies (except Belgium)	Yes (state-owned companies (except Italy)	No (except Ireland: state-owned companies)	Irregular (***)
Role of social partners in policy making	Institutionalized	Institutionalized	Irregular; politicized	Rare/specific event-driven	Irregular; politicized; social partners weak
Role of the state in industrial relations	Limited	Limited; strong legalism	State active; clientelistic relations	State strong; rare interventions	State dominant; strong legalism
Countries	Denmark, Finland, Norway, Sweden	Belgium, Germany, (Ireland), Luxembourg, the Netherlands, Austria, Slovenia, (Finland)	Greece, Spain, France, Italy, (Hungary), Portugal	Ireland, Malta, Cyprus, the UK	Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovakia

(*) In calculating collective bargaining coverage for Poland, we took the average mean, based on the date provided by <http://www.worker-participation.eu/National-Industrial-Relations/Countries/Sweden/Trade-Unions>. Available from Refs. [12, 13].

(**) Overall other representatives are not excluded.

(***) No category: Bulgaria, Estonia, Latvia, Lithuania and Romania and yes: state-owned companies for the rest.

Source: Authors' calculation.

Table 2. Industrial regimes across Europe.

Group, the extent of employee representation at board level is divided between the countries: While in Czech Republic, Hungary, Poland and Slovakia employee representation do exist, in Bulgaria, Estonia, Latvia, Lithuania and Romania, there is no participation at board level, although in some situations employee representatives can have a consultative role in shareholders' meetings.

Moreover, the role played by social partners in public policy-making is different across the five analyzed groups. In the North and Central-West Europe corporatist clusters, the implication of employers' organization and unions in designing policy proposals is extensive, and their connection with political actors is highly institutionalized. In Western countries, although social policy-makers are constantly engaged in social and economic debates, not always their beliefs are reflected in policy outcomes. Distinct practices occur in the other groups involved in the analyses. For instance, in South Europe, the role of social partners in policy-making depends mostly on the individual governments' willingness of inclusion. Despite the fact that the engaged policy-makers are formally involved in the decision-making policy, the government has the freedom to oppose their participation. In the Central and Eastern Europe, an effective social partnership can be undermined by organization politicization which 'combined with the overall weakness of organized interest representation, social partners' politicization seriously limits their influence in the policy-making sphere' [14].

The role of the state and its involvement in collective bargaining differs significantly across EU countries. In North, Central-West and West Europe, state interventions are limited and in the latter region quite rare. In Southern European countries, although there exist strong pressures toward less state regulation regarding collective bargaining and working conditions, the state assumes an almost exclusive role in governing change, particularly in the recent economic context. Regulatory amendments framework, alongside clientelistic relations with social partners, has mainly limited the governing capacity of trade unions and employer organizations over industrial relations. In Central-Eastern Europe, the collective bargaining is dominated by the government; meanwhile, the existing legislation remains the only instrument in settling work relations disputes.

In **Table 3**, the correlations between different institutions of wage bargaining are described. Pearson correlation coefficients demonstrate the positive relationships among all the variables and strong association between: collective bargaining coverage with coordination (0.746) and centralization (0.774), among trade union density with collective bargaining coordination (0.595), and the both way and powerful relationship between coordination index and centralization. Strong actors are interrelated with centralized and coordinated institutions and high rates for bargaining coverage; meanwhile, fragile and weak players are connected with low levels of coordination and de-centralization.

Except Collective Bargaining Coverage and Trade Unions Density mentioned already in the analyses, two more indicators appear in **Table 3**: Collective Bargaining Coordination Index (CBCI) and Collective Bargaining Centralization.

Collective bargaining coordination represents the combination between the level of bargaining and the range of sectors/organization that are bound by the collective agreement that

Institutional correlations		Collective bargaining coverage	Trade union density	Collective bargaining coordination index (CBCI)	Collective bargaining centralization
Collective bargaining coverage	Pearson correlation	1	.450**	.746**	.774**
	Sig. (1-tailed)		.008	.000	.000
	N	28	28	28	27
Trade union density	Pearson correlation	.450**	1	.595**	.402*
	Sig. (1-tailed)	.008		.000	.019
	N	28	28	28	27
Collective bargaining coordination index (CBCI)	Pearson correlation	.746**	.595**	1	.879**
	Sig. (1-tailed)	.000	.000		.000
	N	28	28	28	27
Collective bargaining centralization	Pearson correlation	.774**	.402*	.879**	1
	Sig. (1-tailed)	.000	.019	.000	
	N	27	27	27	27

*Correlation is significant at the 0.05 level (one-tailed).
 **Correlation is significant at the 0.01 level (one-tailed).
 Source: Authors' calculation.

Table 3. Institutional features/linkages of wage bargaining.

succeeds negotiations. *Collective bargaining coordination index* (CBCI) was first developed by Kenworthy [15] and put in application with some small adjustments by authors like Visser which estimates the indexed values based on a five-point scale [6]:

- If maximum or minimum wage rates/increases based on: enforceable agreements between the peak association(s) of unions and employers affecting the whole economy or entire private sector with or without government involvement, and/or government imposition of wage schedule/freeze, with peace obligation, then a score of '5' is set.
- A '4' score is set if wage norms or guidelines (recommendations) are based on centralized bargaining by peak associations with or without government involvement, informal centralization of industry-level bargaining by a powerful and monopolistic union confederation and extensive, regularized pattern setting coupled with high degree of union concentration centralized bargaining by peak association(s), with or without government involvement, and/or government imposition of wage schedule/freeze, with peace obligation.

- '3' score is set if negotiation guidelines are based on limited government involvement on central bargaining by major associations, informal centralization of bargaining at industry level and on government arbitration or intervention.
- If we have a mixed sector and firm level bargaining with weak enforceability of industry agreements than a '2' score is considered.
- '1' for none of the above: fragmented wage bargaining, confined largely to individual firms or plants.

From **Figure 1**, we can observe that 7.1% of the analyzed countries (Finland, Belgium) score a '5' value, meaning that economy-wide bargaining is based either on enforceable agreements or on government establishment of a wage schedule, freeze or ceiling. The larger percent (32.1%) is registered by those countries (Luxemburg, France, Greece, Malta, Cyprus, Bulgaria, Czech Republic, Portugal and Romania), which have a mixed sector and firm level bargaining characterized by weak enforceability of industry agreements. In some cases (14.3%—Slovenia, Italy, Spain and Slovakia), the industry bargaining is characterized by an irregular pattern setting and narrow implication of central organization and limited freedoms for firms bargaining. A 21.4% of the analyzed countries register a '4' value score, while 25% of them register fragmented wage bargaining, confined largely to individual firms or plants (Ireland, the UK, Estonia, Latvia, Lithuania, Hungary and Poland).

Another used indicator, *Collective Bargaining Centralization* or the actual level of wage bargaining is calculated by Visser [6] as: $\text{Level} = (\text{Frequency or scope of additional enterprise bargaining (FAEB} = \overline{0,3}) + \text{Articulation of enterprise bargaining (AEB} = \overline{0,3}) / 4 (\text{= max value}) + (\text{AEB} + \text{Derogation (DER} = \overline{0,3}) - 1) / 5 (\text{= max value})$ in which:

- Frequency or scope of additional enterprise bargaining (FAEB) scores is between 0 and 3, in which '0' represents the value for no additional enterprise, '1' for rarity and, respectively, the frequency of additional enterprise bargaining in large firms and '3' for its regularity.
- Articulation of enterprise bargaining (AEB) equals with values from $\overline{0,3}$, where '0' score means that this concept does not apply; '1' score is applied for disarticulated enterprise bargaining or if exits is reinforced by non-union bodies; '2' denotes that articulated bargaining is established under union control; and '3' score is applied for disarticulated bargaining abolish or limited by sectoral agreements or existing law.
- Derogation is also valued from $\overline{0,3}$ where, '0' value stands for inversed favorability; '1' for the linkage between agreements not subject to existing law; '2' agreements are law enforced but under some conditions derogation is possible; '3' favorability is anchored in law and strictly applied, no derogation [6].

In the North Europe, the higher is the collective bargaining coverage, the higher are the rates for coordination and centralization. From Central-West Europe, Belgium has the higher value not only for coverage and density but also for collective bargaining coordination and centralization. The lowest values regarding collective bargaining coordination index (CBCI) and collective bargaining centralization are registered in most Central-Eastern European countries (**Figures 1 and 2**).

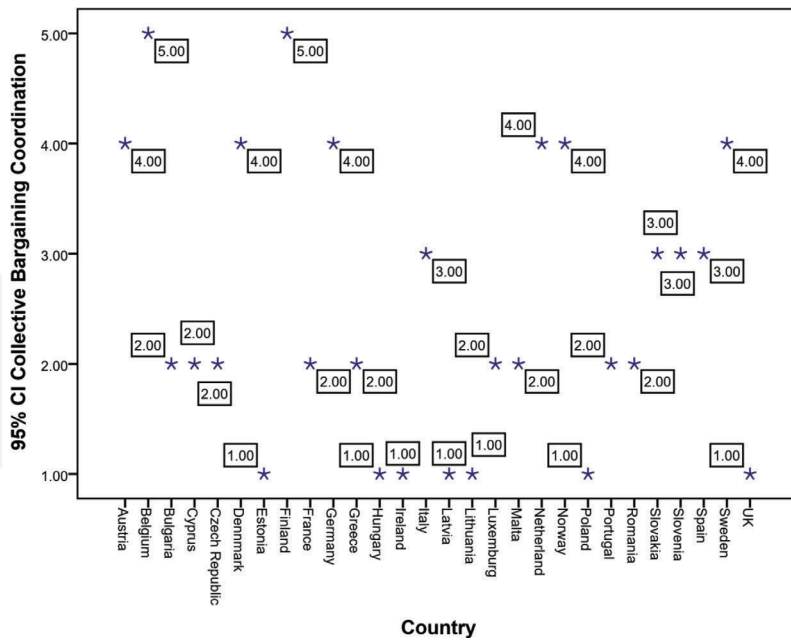


Figure 1. Collective bargaining coordination index (CBCI), EU-28. Source: Authors' calculation.

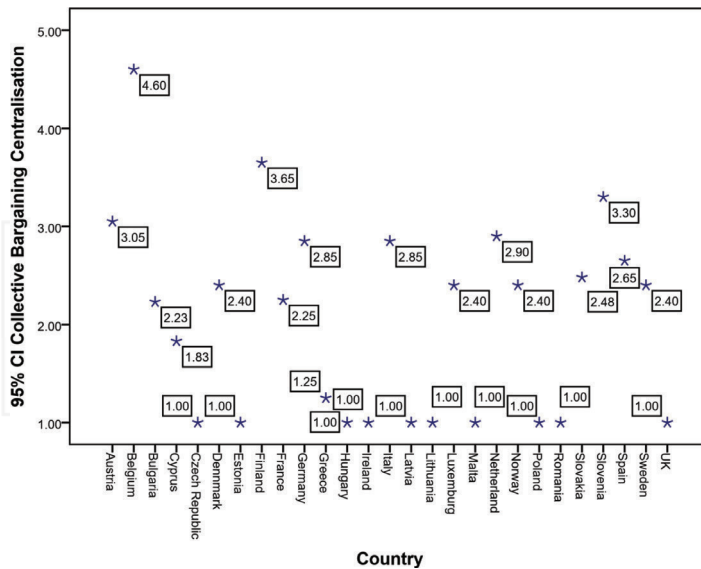


Figure 2. Collective bargaining centralization, EU-28. Source: Authors' calculation. *** No data are available for Portugal on Collective Bargaining Centralization.

Regardless the importance of coverage and trade union density, the above described indicators, collective bargaining coordination index (CBCI) and collective bargaining centralization represent important assets in association of wage setting with economic and labor market performance measures. For instance, in the literature has been identified that as the extend of union coverage increases from less than one quarter to more than 70%, unemployment more than doubles, but bargaining coordination growth tend to compensate this effect [16].

The benefits systems are very important for the employees and employers, also. For the employee, the benefits represent that the income needs for necessities of life and is part of the economic package that can receive. For the employers, is a manner to motivate the people, to attract and to sustain their personal development in organizations, to retain the personal and to increase the productivity and competitively on the market.

Another important topic for the labor relations is job security. Today, the security at work became such important as wages and economic incomes and implies rights to work, to be promoted, to perform at work, to be fire or lay-off.

According to industrial relations research, payment level is positively related to employee satisfaction [17–20], employees considering as a primary indicator of the organization goodwill. The unions' objectives concerning the level of wages are direct related to negotiation. The unions' goals in wage bargaining are to achieve a maximum level of wages and benefits for its members and to maintain the jobs as long as possible. Also, the bargaining process follows to assure a structure of wage scales between employees, negotiating for differences in working conditions, skills, seniority, age and job classification.

The establishment of a statutory or collectively agreed minimum wages is an important way of policy intervention in wage setting processes. Most of the European member states have different forms of regulations in determine minimum wages enforcement: statutory minimum wages and minimum wages established through collective agreements. In the first type, the minimum wage levels are fixed either by government legislation or through inter-sectoral agreements at national level. In the second situation, the wages are established by consultation with social partners or tripartite agreements. Although these are the main minimal wages set approaches, different combinations of these forms of regulations are not excluded.

Visser sets a nine-item scale to measure the minimum wage setting according to the following statements [6]: '0' value score is set for non-statutory minimum wage; '1' represents the case scenario in which the minimal wages are set in consultation with social partners (sectoral collective agreements) or tripartite agreements; '2' values are associated with the hypostasis that minimum wages are set by national agreements, along unions and employers; '3' the minimum wage is established based on an extended agreement enforced by law or Ministerial decree; '4' through tripartite negotiations, the minimal wages is decided; '5' the government sets the national minimal wages, after voluntary tripartite consultations; '6' minimum wage is adjust by judges or experts; '7' the minimum wage is fixed by the state but in accordance with a indexed-based minim wage; '8' government established minimum wage without fixed rule.

In **Figure 3**, we can observe that in the European Member states, there are some forms of establishing the minimum wage settings. In 46.1% of the analyzed countries, the minim wage is set by government and is based either on fixed rule (26.9%) or is bound by index-based minimum wage (19.2%). In 19.3% of the cases, the minim wages are set by sectoral collective agreements or tripartite wage boards. Only in 11.5% of the countries, the minimum wage is set by national agreements between unions and employers, and in 7.7% of the cases is established based on an extended agreement enforced by law or Ministerial decree. A very small percentage of 3.8% remains for those European countries in which the government sets the national minimal wages, after voluntary tripartite consultations.

Human Resource Management is concerned with the development of both individuals and the organization in which they operate. Wage issues, economic benefits, job security and seniority, grievances and possibilities to resolve them are themes with a high impact at the level of organizations in terms of retaining good people, motivating and promoting, hiring and lay-off. It is a complex world of relations in which people are involved. In this regard, the decisions take reflects the capability of management to respond to the complex requirements and to solve problems.

The chapter reflects the current issues and investigations in this complex and important field of research.

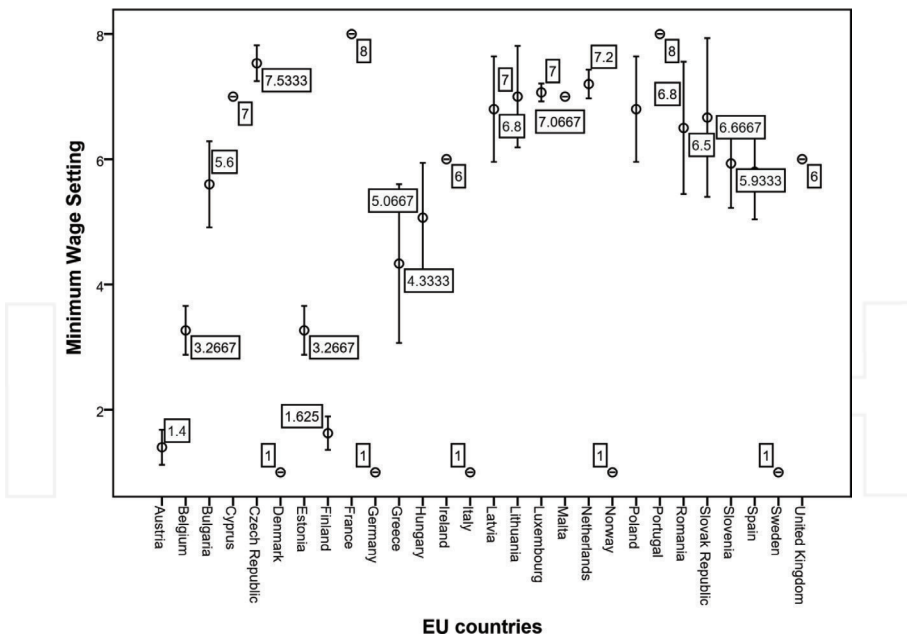


Figure 3. Minimum wage setting in EU 28. Source: Authors' representation. ***No data are available for Romania on minimum wage setting in 2014.

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