Cluster Analysis Used as the Strategic Advantage of Human Resource Management in Small and Medium-sized Enterprises in the Wood-Processing Industry

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This paper presents the possibility of creating motivational programs for employees working in small and medium-sized enterprises (SMEs). The applicability of the proposed option is verified and presented to a medium-sized enterprise operating in the wood-processing industry in Slovakia. Using cluster analysis, three motivational-oriented groups were defined in the category of managers and three similar motivational-oriented groups in the category of workers. Subsequently, the sampling units were tested by the Tukey's honest significant difference (HSD) test. In this way, the significance of the differences in arithmetic mean and the standard deviation of the individual motivational factors of the monitored sets at the significance level $\alpha = 0.05$ were defined. The result of the analysis is a plan to create a group motivational program. The content of this program is a common motivational factor for groups, supplemented by employee-specific factors. Currently, businesses apply unified motivational programs based on two, three, or four main motivators. However, improperly designed and applied motivational programs have a negative impact on employees and do not motivate them to maximize performance. By implementing this method in wood-processing SMEs, the company's performance can be increased, as the needs of most employees would be met.

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INTRODUCTION

In the process of globalization, the management of companies is changing. The pressure placed on business performance and human resource management (HRM) is increasing (Salyova *et al.* 2015; Adamova and Krniska 2016; Nedeliaková *et al.* 201; Vetrakova and Smerek 2016). HRM is becoming part of the strategic management within the organization (Zámečník 2016; Pingping 2017). The strategy of the HRM process is the emphasis on improving the company performance. Business performance can be measured by indicators of labour productivity, profitability, or Economic Value Added (EVA). The quantification of the economic return on investment to motivation can be considered very difficult, especially for reasons of demanding quantification of measurable benefits for the enterprise. It is possible to precisely determine the cost of creating a motivational program. However, quantification of benefits (economic and non-economic), and in particular their

extent and location is not unambiguous. Therefore, at least, it is necessary to quantify the overall benefit (benefit to profit) in terms of a comprehensive assessment of the partial benefits. The return on investment is measured in the evaluation of investments – material and real. It represents the return generated by the corresponding investment over its useful life. We can see the quantification of the partial benefits of profit in the indicators such as benefit resulting from the growth in labour productivity, benefit resulting from growth of receipts and growth in production, benefit resulting from the reduction of costs, benefit resulting from the use of working time and employee savings, benefit deriving from the release of the capital of the invested capital, or the reduction in the amount of the working capital, in other quantifiable benefits.

HRM focuses on employees as well. Human resources, along with other functional areas of management, is involved in achieving synergy – meeting the goals of both employees and the enterprise as a whole. Effective managers are a link between managing the process and leading people. If they are too focused on people, and their key employees leave, everything will stop. The result is the problem of moving from the stop point. When managers are too process-oriented, things run smoothly, but nobody really knows how they work and nobody wants to learn how to work with them. However, if managers find the right balance between processes and people, they will achieve high performance in productivity, but managers will be able to bring people into a commitment to meet plans and goals. With strong competition, there is also increasing use of personal management elements that play a very important role in the conditions of today's enterprises (Faletar *et al.* 2016).

LITERATURE REVIEW

Motivation and follow-up motivational processes play a very important role in modern personnel systems. Based on Sánchez-Sellero *et al.* (2014), motivation is the variable that exerts the greatest influence on job satisfaction. According to Najjar and Fares (2017), work motivation is a significant component for the institution. Motivation, as one of the basic assumptions of the success and efficiency of people's performance in the work process, forms an essential part of HRM. In management, the ability to motivate a worker is a core skill, and the enterprise's profit depends directly on its qualitative application. In today's enterprise practice, motivation is often an underestimated element of personnel management, despite its being highly effective in its proper application.

Small and medium-sized enterprises (SMEs) are defined as private enterprises that are relatively small compared to other enterprises in the corresponding sector, and they are not created within large corporations or business groups (Curren and Blackburn 2001). However, the definition of SMEs varies according to the diversity of country-specific laws and standards. Many national and international organizations describe SMEs purely in terms of number of employees. Although many professionals are governed by this criterion, other important factors should also be considered, such as capital or sales of net assets (Carnegie 2011).

SMEs play an important role in the economy of each country, and this is also in the case of the Slovak Republic (Sedliačiková *et al.* 2016). SMEs offer a number of advantages that large enterprises cannot. Among the most valuable features of SMEs are their flexibility, fast response to changes in the environment, ease of decision making,

implementation of innovation, and high market focus. Many large organizations rely on SMEs within to provide their support services and products, because, in this way, they have an area to concentrate on their core business activities. SMEs are also highly valued for their creativity. Nevertheless, some SMEs are absorbed by bigger, more predatory competitors, who see SMEs as a cost-effective way to obtain new technology. Often, they want only to buy, merge, or market off them to get higher profits and higher market share (Foreman-Peck and Nicholls 2008). In addition, SMEs bring many social benefits. The irreplaceable role of SMEs is the provision of the actual realization and application of the citizens in the productive process. In this way, people are instigated to responsibility because any mistake can lead to failure, even to the end of their career. The existence of SMEs is a stabilizer of society because political uncertainty or radical parties are the source of risk for these subjects. SMEs are more interconnected with the regions in which they operate. Therefore, SMEs provide people with employment and the opportunity to engage in various activities. One of the most valuable economic features of SMEs is their ability to adapt quickly to changing conditions. The increasing trend of globalization is reflected in the economic sector, which involves the emergence and development of international chains and corporations against which SMEs are trying to strengthen monopolistic tendencies. Thanks to their rapid adaptation to the changing environment and customer needs, SMEs are producers of many small innovations. They can operate in marginal market areas that are unattractive for larger enterprises (Veber and Srpová 2005; Sedliačiková *et al.* 2016).

Crucial elements among the critical factors of an enterprise's success in a market environment are the employees (human resources), who ensure its performance by activating all other resources of the organization. Each manager should know how to inspire, enthuse, and motivate his or her employees to high quality performance (Myšková 2001). This is a positive reflection on the performance of employees, if they realize that the enterprises value them, invest in their success, confide in them, empower them, and give them opportunities to participate.

The whole management process should be based on a detailed understanding of the motivational process. Motivation of human resources builds on the employee's internal motives and co-ownership with the enterprise and on linking personal, group, and corporate goals (Clark 2003). It is a reflection of their work and conditions in the context of individual standards, value orientation, aspirations, and expectations related to the activities performed (Nedeliaková *et al.* 2015). The rule that a satisfied employee is automatically efficient does not always apply because, for example, he/she can be content just because he/she is inefficient (Stacho *et al.* 2013). The enterprise motivational program is a comprehensive set of measures in the field of HRM. As a result of other management activities, it aims to actively influence work behaviour and work performance and to establish and consolidate positive attitudes toward organizations of all employees of the enterprise. In this respect, the aim is to strengthen the identification of the employee's interests with the interests of the enterprise (loyalty to the enterprise) and to shape the employee's interest in his/her development of personal abilities and skills and in the active use of these in the work process. For the motivational process to be successful, all external stimuli of this kind need to be linked to the structure of internal needs and the motivation of the employee. If a motivational program is effective in the expected direction, it must be based on a personal strategy.

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EXPERIMENTAL

Research Background

By the use of mathematical-statistical methods, the aim of the study is to propose similarly motivational-oriented groups of employees working in wood-processing industry with the intention of increasing the company's performance. Identification of different motivational groups of the enterprise's employees enables corporate motivational processes to be tailored to a particular type of employee. Based on this identification, differentiated motivational programs can be created, specifically targeting individual employee groups with a similar motivational profile. This proposed approach is presented based on the example of a medium-sized Slovak enterprise operating in the wood-processing industry. This paper also presents the usability of the method in practice.

The research took place in 2017. The wood-processing industry of Slovakia was selected, as it still has a relatively small share in the Slovak economy, but based on data of the Slovak Association of Wood Processors, there are more than 7,000 wood-processing companies, with revenues of about 700,000,000 EUR (SAWP 2017). A total of 15 managers and 69 workers from one selected enterprise, operating in the wood-processing industry of Slovakia, were involved in the survey. A questionnaire was used to determine the level of motivation in the enterprise and to analyze the preference of motivational factors at the current time based on 30 closed questions (Hitka 2009). The questionnaire was divided into two parts. The first part examined the socio-demographic and qualification characteristics of employees. In this section, data was gathered about age, gender, seniority, completed education, and job position of respondents. The second part of the questionnaire was focused on the evaluation of motivational factors in terms of preference and level of satisfaction. Information was gained about characteristics of the work environment, working conditions, appraisal systems, and remuneration in the enterprise, personal work, social care and employee benefits, as well as employee satisfaction or dissatisfaction; the value orientation of employees; and their relationship to work, to colleagues, and to the business as a whole.

Methods

Motivational factors were arranged in alphabetical order to avoid influencing the respondents. Employees could assign one of five levels of importance of the Likert scale for each question. Questionnaires were evaluated by Statistics 12.0 software (Dell, Oklahoma City, OK, USA). Data were evaluated using descriptive statistics. Similarly motivated groups of employees were identified using cluster analysis (Mason and Lind 1990), and Ward's method using Euclidean distance. Cluster analysis (CLUA), is one of the possibilities of using the information contained in a multidimensional observation. The principle is based on sorting a plurality of objects into several relatively homogeneous aggregates. Applying CLUA methods leads to favourable results, especially where the set study actually breaks down into classes and where the objects tend to be grouped into natural clusters. By using appropriate algorithms, the structure of the studied set of objects could be revealed and the individual objects could be classified. Consequently, it was necessary to find a suitable interpretation for the described decomposition. In this way, a radical reduction in the dimension of the task was achieved so that the amount of variables considered was represented by a single variable expressing a defined class or type. The goal was to achieve a state where the objects within the clusters will be as similar as

possible, and objects from different clusters will be as close as possible. In the next section of paper are shaped clusters and their characteristics. Due to the selective nature of the data collected, the differences in the arithmetic mean of the importance of motivational factors for each employee at the level of significance $\alpha = 5\%$ was tested by Tukey's HSD test. Tukey's HSD test is a single-step multiple comparison procedure. It is adapted for different numbers of observations in each group. It assumes the independence between the levels of factors, the variance of consistency, and the normality. It can be used on raw data or in conjunction with an ANOVA (Post-hoc analysis) to find averages that are significantly different from each other.

RESULTS AND DISCUSSION

The results of the selected enterprise operating in the wood-processing industry in Slovakia are presented in Figs. 1 and 2. These tree diagrams represent the similarity of respondents' responses. Respondents with roughly similar replies formed a cluster. In the enterprise, there are three basic groups of similarly motivated respondents in the category of workers and three groups in the category of managers. Using descriptive statistics, the average values of motivational factors were defined for all workers in the selected enterprise (Table 1).

Table 1. Top 10 Motivational Factors from the Perspective of Workers

Ranking	Motivational factor	Mean
1.	Base salary	4.74
2.	Fair financial appraisal system	4.67
3.	Job security	4.51
4.	Free time	4.49
5.	Fair assessment of job performance	4.45
6.	Fringe benefits	4.43
7.	Social care	4.41
8.	Workplace safety	4.36
9.	Personal growth	4.26
10.	Physical effort at work	4.20

The highest need was noticed in the motivational factor of base salary. Similar outcomes were confirmed by Faletar *et al.* (2016), who discovered that employees were more afraid of their salaries during a crisis. This is due to the overall low financial rating of Slovak employees and especially employees in the wood-processing industry. The fair financial appraisal system was a factor with the second highest priority. This result means that the salary reflected a fair approach to financial evaluation (that it should be based on actual performance). Consequently, three main groups of similarly motivational-oriented workers were defined by CLUA (Fig. 1). In individual groups, it was possible to follow common motivational factors. In each of them, the *base salary* was an important motivational component. In two groups, the base salary was as an important factor; in the third group, the base salary was the first in rank (Table 2).

Tree Diagram for 69 Cases
Ward`s method
Euclidean distances
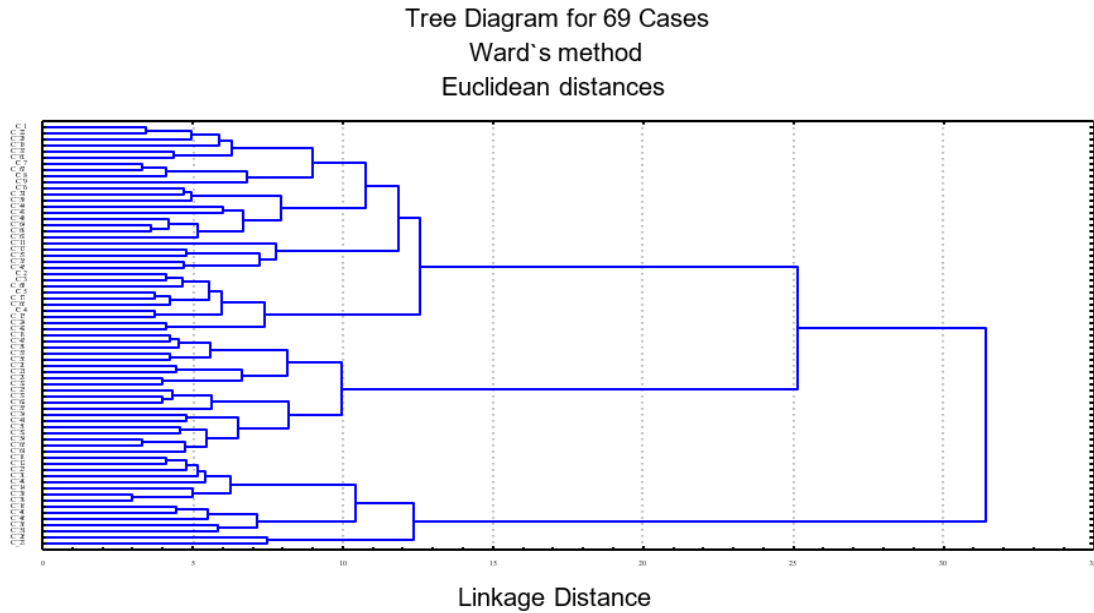
Fig. 1. Hierarchical cluster analysis of motivational profiles of 69 workers

Table 2. Ranking the Importance of Motivational Factors for Similarly Motivational-oriented Groups of Workers

1st group	Mean	2nd group	Mean	3rd group	Mean
Fair financial appraisal system	4.57	**Job security**	4.63	**Base salary**	**4.54**
Base salary	4.45	**Base salary**	4.60	Time for personal life and free time	4.50
Time for personal life and free time	4.42	**Fair financial appraisal system**	4.57	**Fair financial appraisal system**	4.49
13th and 14th salary	4.40	Information about performance results	4.56	Fair assessment of work performance	4.47
Social security for the employee	4.38	13th and 14th salary	4.49	Social care	4.46
Information about performance results	4.37	Atmosphere in the workplace	4.45	**Job security**	4.41
Fair assessment of work performance	4.36	Workload and type of work	4.44	Social security for the employee	4.38
Job security	4.33	Physical effort at work	4.39	Atmosphere in the workplace	4.32
Social care	4.30	Supervisor's approach	4.29	13th and 14th salary	4.30

Note: The important motivational factors, same for all groups, are highlighted in bold.

The first group consisted of 34 workers (49.3%). Members of this group were the ones who mostly preferred fair financial appraisal system, base salary, time for personal life and free time, 13th and 14th salary, social security for the employee, information about performance results, fair assessment of work performance, job security, and social care. This group included employees: 1, 22, 28, 18, 33, 60, 7, 63, 8, 9, 6, 31, 58, 44, 47, 48, 64, 69, 67, 11, 13, 57, 35, 45, 2, 3, 68, 5, 17, 66, 4, 15, 24, and 42.

The second group consisted of 20 workers (29%), including members: 19, 43, 59, 53, 56, 20, 21, 29, 32, 25, 37, 62, 55, 34, 41, 50, 52, 54, 65, and 61. The members of second group recognised job security, base salary, fair financial appraisal system, information about performance results, 13th and 14th salary, atmosphere in the workplace, workload and type of work, physical effort at work, and supervisor's approach as important motivational factors.

The third group included 15 workers (21.7%), consisting of workers: 10, 12, 23, 30, 49, 14, 38, 39, 16, 40, 46, 36, 51, 26, and 27. In this group, motivational factors such as base salary, time for personal life and free time, fair financial appraisal system, fair assessment of work performance, social care, job security, social security for the employee, atmosphere in the workplace, and 13th and 14th salary had the most motivating force.

The consistency of average values of the importance was tested for three identical factors between individual pairs of groups using the Tukey's HSD. In the case of the motivational factor – the base salary, there were significant differences at the significance level of 5% among all groups. A similar result was observed in a second consistent motivational factor – the fair financial appraisal system. There was a significant difference between the second and third group of workers. The differences between the first and second groups and between the first and third groups were not statistically significant. In the case of the motivational factor – job security, there was a significant difference between all groups of workers (Table 3).

Table 3. Tukey's HSD Test Results within Motivational Factors for Workers

	Base salary		
	1st group (M=4.45)	2nd group (M=4.60)	3rd group (M=4.54)
1st group		**0.000**	**0.013**
2nd group	**0.000**		**0.010**
3rd group	**0.013**	**0.010**	
	Fair financial appraisal system		
	1st group (M=4.57)	2nd group (M=4.57)	3rd group (M=4.49)
1st group		0.081	0.067
2nd group	0.081		**0.000**
3rd group	0.067	**0.000**	
	Job security		
	1st group (M=4.33)	2nd group (M=4.63)	3rd group (M=4.41)
1st group		**0.000**	**0.000**
2nd group	**0.000**		**0.000**
3rd group	**0.000**	**0.000**	

Note: Significantly important values are highlighted in bold.

Using descriptive statistics, the average values of motivational factors were defined for all managers in the enterprise (Table 4). In the case of managers, the most important motivational factors were fair financial appraisal system, job security, job performance, base salary, and self-actualization.

Consequently, three groups of similarly motivated managers were defined using CLUA (Fig. 2). In created groups, the same motivational factors could be followed. In each of them, job security was a major driving force. The motivational factor was ranked first

in the first and third group. In the second group, job security was marked as second (Table 5).

Table 4. Top 10 Motivational Factors from the Perspective of Managers

Ranking	Motivational factor	Mean
1.	Fair financial appraisal system	4.93
2.	Job security	4.87
3.	Job performance	4.73
4.	Base salary	4.73
5.	Self-actualization	4.47
6.	Time for personal life and free time	4.47
7.	Information about performance results	4.40
8.	Fair assessment of work performance	4.40
9.	Supervisor's approach	4.33
10.	Work environment	4.33

The first group consisted of four managers who were mostly motivated by job security, supervisor's approach, fair financial appraisal system, fair assessment of work performance, information about performance results, profit sharing, base salary, workload and type of work, leadership style, and work environment. Members of this group include employees 1, 2, 3, and 6.

The second group consisted of eight managers: 4, 8, 12, 13, 7, 11, 10, and 14. For these employees, the important motivating factors were fair financial appraisal system, job security, fair assessment of work performance, technical equipment of the workplace, base salary, leadership style, time for personal life and free time, fair appraisal system, social security for the employee, and work recognition.

The third group consisted of three managers: 5, 9, and 15. Members of this group were the most highly motivated by factors such as job security, fair financial appraisal system, fair assessment of work performance, base salary, information about performance results, supervisor's approach, time for personal life and free time, information about enterprise results, profit sharing, and fair appraisal system.
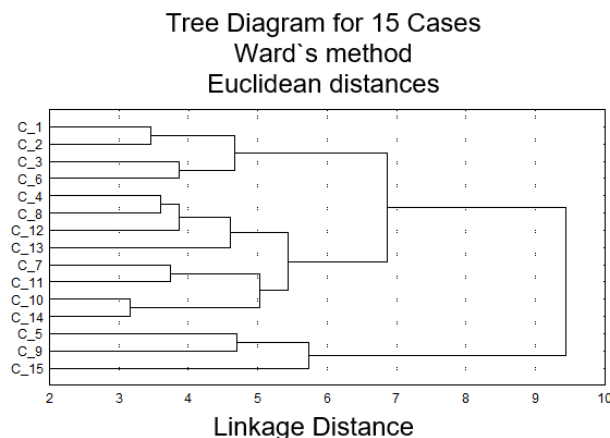
Fig. 2. Hierarchical cluster analysis of motivational profiles of 15 enterprise managers

Table 5. Ranking the Importance of Motivational Factors for Similarly Motivational-oriented Groups of Managers

1st group	Mean	2nd group	Mean	3rd group	Mean
Job security	4.65	**Fair financial appraisal system**	4.38	**Job security**	4.25
Supervisor's approach	4.54	**Job security**	4.29	**Fair financial appraisal system**	4.20
Fair financial appraisal system	4.51	**Fair assessment of work performance**	4.20	**Fair assessment of work performance**	4.10
Fair assessment of work performance	4.49	Technical equipment of the workplace	4.20	**Base salary**	4.05
Information about performance results	4.48	**Base salary**	4.14	Information about performance results	4.03
Profit sharing	4.46	Leadership style	4.14	Supervisor's approach	4.00
Base salary	4.45	Time for personal life and free time	4.14	Time for personal life and free time	4.00
Workload and type of work	4.44	Fair appraisal system	4.11	Information about enterprise results	3.98
Leadership style	4.43	Social security for the employee	4.11	Profit sharing	3.96
Work environment	4.41	Work recognition	4.08	Fair appraisal system	3.92

Note: The important motivational factors, same for all groups, are highlighted in bold.

The consistency of average values of importance was tested for three matching factors between individual pairs of managers using Tukey's HSD test (Table 6).

Table 6. Tukey's HSD Test Results within Motivational Factors for Managers

	Job security		
	1st group (M=4.65)	2nd group (M=4.29)	3rd group (M=4.25)
1st group		0.871	0.142
2nd group	0.871		0.662
3rd group	0.142	0.662	
	Base salary		
	1st group (M=4.45)	2nd group (M=4.14)	3rd group (M=4.05)
1st group		**0.000**	**0.000**
2nd group	**0.000**		**0.000**
3rd group	**0.000**	**0.000**	
	Fair financial appraisal system		
	1st group (M=4.51)	2nd group (M=4.38)	3rd group (M=4.20)
1st group		0.081	**0.000**
2nd group	0.081		**0.000**
3rd group	**0.000**	**0.000**	
	Fair assessment of work performance		
	1st group (M=4.49)	2nd group (M=4.20)	3rd group (M=4.10)
1st group		**0.011**	**0.000**
2nd group	**0.011**		**0.000**
3rd group	**0.000**	**0.000**	

Note: Significantly important values are highlighted in bold.

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Within the motivational factor of job security, there was not a significant difference between groups of managers. Therefore, for this factor, there were no differences between the groups. In the case of the motivational factor of base salary, significant differences were noted at the significance level of 5% among all groups. A similar result was observed in the motivational factor of fair financial appraisal system. There was a significant difference between the first and third group of managers and between the second and third group of managers. The differences between the first and second groups were not statistically significant. In the case of the motivational factor of fair assessment of work performance, there was a significant difference between all groups of managers.

We have devoted ourselves to the most important motivational factors for all three groups of workers that were tested by the Tukey's HSD test, subsequently. In the case of the motivational factor – base salary, significant differences exist in the significance level of 5%, among all groups. Even in the case of a second identical financial motivational factor – fair appraisal system, we observe a similar result. A significant difference can be seen between the second and third group of workers. The differences between the first and second group and between the first and third group are not statistically significant. A significant difference is observed between all groups of workers within the financial motivational factor – job security. Other important factors motivating workers are summarized in Table 2. For example, the second group differs from other groups by following motivational factors: workload and type of work, physical effort at work, supervisor's approach.

In the motivational factor – job security, a significant difference between the groups of managers was not noticed. Significant differences among all groups were verified in the significance level of 5%, in the case of the motivational factor – base salary. Similar results were observed in the motivation factor – fair appraisal system. A significant difference is identified between the first and third group of managers and between the second and third group of managers. The differences between the first and second groups are not statistically significant. In the motivational factor – fair assessment of work performance, significant difference was observed between all groups of managers. Other important factors motivating managers are presented separately or in two groups, in Table 5. For example, the first group differs from other groups by motivational factors as workload and type of work, work environment. The second group of managers differs from other groups by motivational factors as technical equipment of the workplace, social security for the employee, work recognition. This shows differences in motivational needs for similar motivational-oriented groups of managers.

By using of this methodology, employees can be typologized into the groups with similar motivational preferences. The methodology can be provided only in SMEs. In large businesses the process would not be cost-effective. There are no restrictions on the potential use of the proposed approach in other SME sectors as well.

CONCLUSIONS

1. If a person accepts work as an integral part of life and the achievements are important for self-evaluation, then the person has identified with the work. If employees identify with an enterprise and understand the business objectives as their own, then the contradiction between personal and business goals will not exist. If an employee's work

assignment is coupled with an employee's identification with business objectives, the employee's work performance will be long-lasting, cost-effective, creative, responsible, and active. The comparison of the average rating of motivational factors allows a general analysis of the motivational structure and its variation within the individual categories of employees. Consequently, it was possible to develop a unified motivational program. In order to better tailor motivational programs to specific people and increase their efficiency, we have explored the possibility of creating groups of similarly motivational-oriented employees using cluster analysis. This issue is highly relevant in SMEs, because:

- A unified motivational program, created on the basis of averaging a larger number of individual opinions, may be quite remote from the needs of specific individuals and thus can be ineffective for a larger part of the target group of employees, especially with greater variability of individual motivational profiles.

- On the contrary, the development of fully individual motivational programs, often for dozen of employees, is practically unmanageable and unjustified, assuming the existence of groups of employees with a similar motivational profile.

2. The cluster analysis answers the question of whether there are some motivational types in the enterprise (groups of people with similar motivational profiles), how many of these types or differences exist, and what is typical for the particular type. Based on the clusters created, the resemblance of motivating respondents' opinions can be used when placing motivators into motivational programs for similarly motivated groups of employees. The Tukey's HSD test was used to define which motivational factors were fundamentally different for each group. In this way, the effectiveness of the motivational program can be emphasized.

3. Generally, there is no simple instruction to motivate all employees. Managers often assume that employees only want money. They are surprised that other motivational factors can be even more intense, under certain circumstances. Employee motivation can work effectively only if it is based on an appropriate knowledge and understanding of motivational factors and their differentiation in relation to certain types of employees. By using mathematical-statistical methods, the aim of the study is to propose similarly motivational-oriented groups of employees working in wood-processing industry with the intention of increasing the company's performance. The practical effect of our work is the possibility of creating a differentiated motivational program specifically targeting individual groups of employees with similar motivational profiles, based on a competent statistical analysis of motivators. Currently, the majority of enterprises apply unified motivational programs based on two, three, or four main motivators. Incorrectly designed and applied motivational programs usually have a negative impact on employees and do not motivate them to maximize the performance. In our opinion, only an adequately differentiated motivational program (based not entirely on financial evaluation) can be effective. In today's pre-technical times of increasing demands and decline of technology costs, talented, capable, responsible, sacrificing, creative, and motivated employees represent a real competitive advantage for the enterprise (Haviarova *et al.* 2008; Kubašáková *et al.* 2014; Sujova and Cierna 2016; Baranski *et al.* 2017; Gáborík *et al.* 2017).

4. Methods of cluster analysis were used by several authors, for example, in the processing of data from the survey of expectations concerning developments in the

national economy (Myšková 2001), in the processing of data from interpersonal behaviour research and value orientations, and in many other research results (Osecká 2001; Grenčíková and Španková 2016; Kucharčíková *et al.* 2016). This statistical procedure is recommended by Mura and Gašparíková (2010) and Smolková *et al.* (2016) as suitable for specifying customer segments based on certain common customer characteristics (demographic information, information about the financial situation, purchasing methods, types of bank accounts, *etc.*).

5. Identifying the detailed characteristics of each type should be a logical and necessary step after generating empirical employee types. Determination of specific motivators (for a particular motivational type) allows the creation of an optimal motivational program differentiated for relatively homogeneous groups of employees (given the preferred motivators). It is appropriate to elaborate in detail the partial outputs of the motivational program for each specific group of employees in order to include the relevant motivators, and to choose the concrete forms and specific conditions for their application (Vetráková 2017). Subsequently, these sub-sections of the program should be incorporated into a coherent motivational program in the form of a conceptual document setting out the implementation process, the timetable, and the responsibility for its implementation (Potkány 2009). The motivational program should be further verified in practice and updated on a continuous basis, depending on developments or changes in employee motivation. We recommend implementing the overall approach leading to the design of a differentiated corporate motivational program: from the initial acquisition of information about potential motivational factors for individual employees to the generation and characterization of groups with a similar motivational profile.

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