

## **CONTROLLING IMPLEMENTATION: WHAT ARE THE BENEFITS AND BARRIES FOR EMPLOYEES OF WOOD PROCESSING ENTERPRISES?**

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### **ABSTRACT**

Controlling is an effective tool used to manage the future of an enterprise actively. Its implementation and enforcement is a long-term, difficult and complex process that is specific and inimitable for each enterprise. All internal stakeholders (owners, managers, employees) need to be prepared for the implementation and use of controlling in an enterprise, respecting the barriers and benefits of this management tool. The aim of the paper was to identify the most important financial and non-financial benefits and barriers affecting the employees of wood-processing enterprises in controlling implementation into business practice. The empirical research into the given issue was conducted in a form of questionnaire in Slovak wood-processing enterprises. In order to evaluate the research results, the descriptive, graphical and mathematic-statistical methods were used. Based on the research results, recommendations were formulated to highlight key financial and non-financial benefits, or barriers affecting employees in implementing controlling into business practice. On one hand, employees do not perceive controlling as a tool with financial benefits, but on the other hand, it represents a tool with improvement of activities with effect on cost reduction. They consider excessive control to be the most important barrier of this tool. The achieved results led to formulating and describing of three key phases of controlling implementation, which could be beneficial to owners and managers to eliminate key barriers of controlling implementation and enforcement, ensuring that controlling is fully operational and accepted by all stakeholders.

**Key words:** controlling, financial and non-financial benefits, barriers, wood-processing enterprises, employees.

### **INTRODUCTION**

Wood-processing industry in the Slovak Republic is relatively independent of importing the natural resources inputs, being built on a domestic resource base of sustainable character, and therefore it is able to permanently show active balance of foreign trade. In relation to the positive situation related to natural resources, their suitable geographic location, and their acceptable energetic demands for processing wood, wood-processing industry represents an important field of industry for the Slovak national economy, while thus enabling further development of small and medium enterprises (HAJDÚCHOVÁ *et al.* 2016). Wood-processing industry is composed of the wood, furniture, and cellulose-paper industries. These are based on processing wood, i.e. domestic ecological resource.

According to VUKO and OJVAN (2013), JELAČIĆ *et al.* (2015) and TODORVIĆ-DUDIĆ *et al.* (2017) managing business successfully in dynamic environment requires effective controlling system. Controlling is the process of defining objectives, planning and management control so that every decision maker can act in accordance with agreed objectives. Controlling function as a separate department contributes business efficiency through ensuring transparency of business result and business processes. Controlling takes place when manager and controller cooperate. The role of controlling, not only financial, is to actively manage the future of the enterprise on the basis of information about its future development, including knowledge of past enterprise development (SEDLIAČIKOVÁ 2011). Controlling as a tool of enterprise control subserve specified responsibilities and function like advisory, control and coordination (ŠATANOVÁ – POTKÁNY 2004).

According to SEDLIAČIKOVÁ (2018), psychological aspects of controlling define relations, feelings, opinions, or an imagination of people about controlling, while thus creating the base and foundations for establishing the real form of this tool. Realizing these factors enables more effective activity of the controller, and understanding the behaviors and feelings of the people involved. Between the controller, managers, and employees who are the recipients of the controller's information and recommendations, there exist six psychological rules (aspects), which must be accepted and applied in the enterprise with regard to the effectiveness of its implementation and enforcement within the enterprise. Among this belong: motivation, feedback, communication, building trust, enforcing, and change (WANICZEK 2002, ESCHENBACH 2004, ŠATANOVÁ *et al.* 2015).

According to KLEMENTOVÁ (2017) for the implementation and use of controlling in an enterprise, it is necessary to prepare all internal stakeholders, respecting the perception of barriers and benefits of this management tool. The perception of psychological factors is important specifically for employees, managers and enterprise owners. Successful implementation of controlling is also conditional on the positive direction of employees, which leads to more efficient performance, growth of economic result and fulfillment of financial plans.

According to SEDLIAČIKOVÁ *et al.* (2015) and JÁNSKÁ *et al.* (2017), the financial benefits of controlling implementation include mainly the growth of profit, enterprises ROI growth, and increased enterprise value. HAVLÍČEK (2015) and RATANOVÁ *et al.* (2011) highlight the non-financial benefits of controlling implementation such as improvement of processes performance with the effect on cost reduction.

The aim of the paper is to determine the key financial and non-financial benefits and barriers that affect employees of wood-processing enterprises related to controlling implementation into practice.

## METHODOLOGY

The research was focused on analyzing the financial and non-financial benefits and barriers that affect employees in implementing controlling into an enterprise. Data collection was carried out through a survey of wood-processing (WPI) enterprises in Slovakia. The contents of the first part of the questionnaire were sorting questions focused on the size of the business, the duration of the activity and the legal form of an enterprise. The second part of the questionnaire focused on general information of controlling, the most important financial and non-financial benefits and barriers to implementing controlling into an enterprise from the employees point of view.

The respondents were contacted electronically and by phone. The size of the research sample was determined using a mathematical relationship to calculate the minimum number

of respondents involved in the survey:

$$n \geq \frac{(z^2 \times p \times q)}{\Delta^2} \quad (1)$$

The minimum number of respondents in the formula is  $n$ ; the coefficient of reliability is  $z$ ; the variables  $p$  and  $q$  show the percentages of the respondents surveyed, who know or do not know the issue, or they prefer one or the other variation. The selection of respondents was purely random and their knowledge of controlling was not known, so it was necessary to divide the respondents set in half so that the product of  $p$  and  $q$  was maximal (50% to 50%). The value  $\Delta$  represents the maximum permissible significant error (KOZEL *et al.* 2006).

The value  $z = 2$  was determined for higher research reliability (95.4%). The maximum error value for a representative sample was set at 5%. By substituting individual values into the formula, the minimum number of respondents for the reliability of research was determined by substituting individual values into the formula (KOZEL *et al.* 2006):

$$n = \frac{2^2 \times 0,5 \times 0,5}{0,05^2} \quad (2)$$

The survey was to consist of at least 400 respondents to research reliability. The questionnaire survey included 471 respondents out of total of 1,620 respondents (29.1%).

The research results were processed by the SPSS software. Via Friedman and Wilcoxon test hypotheses were tested:

*H1 = It was assumed that the controlling implementation into an enterprise has no financial benefit for employees.*

The first hypothesis was formulated based on positive and negative employees' attitudes towards controlling implementation as organizational change. Resistance come from employees who are generally skeptical of initiative change (REBEKA – INDRADEVI 2015). Resistance and fear prevents them to perceive financial benefits of implementing controlling, e.g. the growth of profit, enterprises ROI growth, and increased enterprise value (JÁNSKÁ *et al.* 2017). Successful organizational change requires top management a clear explanation of how the contemplated changes can help employees to do their job's more efficiently and improve their carrier.

*H2 = It was assumed that the improvement of activities with effect on cost reduction is the most significant non-financial benefit of implementing controlling into an enterprise.*

The second hypothesis was formulated based on the claim that the most frequent non-financial benefit of controlling implementation is improvement of activities with effect on cost reduction (SHATALOVA *et al.* 2013).

*H3 = It was assumed that excessive control is the most significant barrier of implementing controlling into an enterprise.*

The third hypothesis was formulated based on research results, which showed that more than 50% of employees expressed concerns with implementing controlling due to excessive control from the top management, fear of not fulfilling the norms and worsening relationships in the workplace (SEDLIAČIKOVÁ *et al.* 2017).

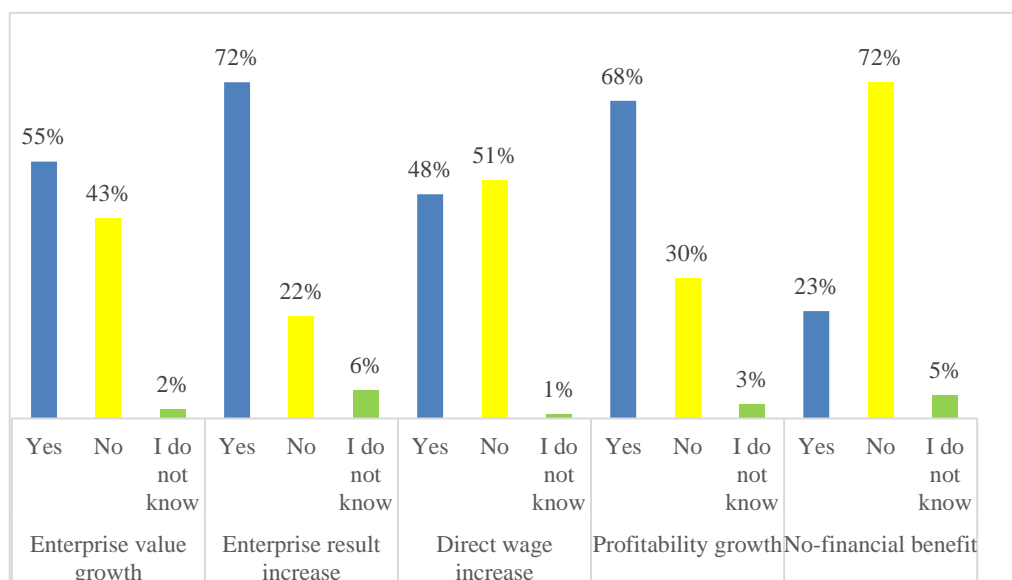
## RESULTS AND DISCUSSION

The first part of the questionnaire focused on the characteristics of an enterprise. As to the size of enterprise, 61% micro and 34% small enterprises participated in the research. Medium enterprises represented 3%, and large enterprises 1% of the sample. As to the

market duration, 36% of respondents operated on the market for over 15 years, 25% enterprises operated less than fifteen years and 25% enterprise less than five years. Enterprises operating in the market for less than one year represented 18%. Limited liability enterprises, joint-stock enterprises and self-employed were most represented to the legal form of enterprise.

The second part of the questionnaire survey focused on general questions related to controlling, financial and non-financial benefits and barriers of implementing controlling into an enterprise. Approximately 49% of the respondents said they were active in enterprises where controlling is not implemented. A positive signal is that 31% of employees said they were operating in enterprises which planning to implement this complex management system and 14% of employees work in enterprises with controlling. In the future, we can expect a positive increase in the number of enterprises that are beginning to realize the importance of controlling.

In the case of the financial benefits of implementing controlling, respondents had a choice of five activities, where they expressed their opinion on each of them through a 3-grade rating scale. Figure 1 shows that for 72% of employees, the implementing controlling into an enterprise has no financial benefit. The graphic evaluation is connected with the evaluation of H1 statistical hypothesis.



**Fig. 1 Financial benefits of controlling.**

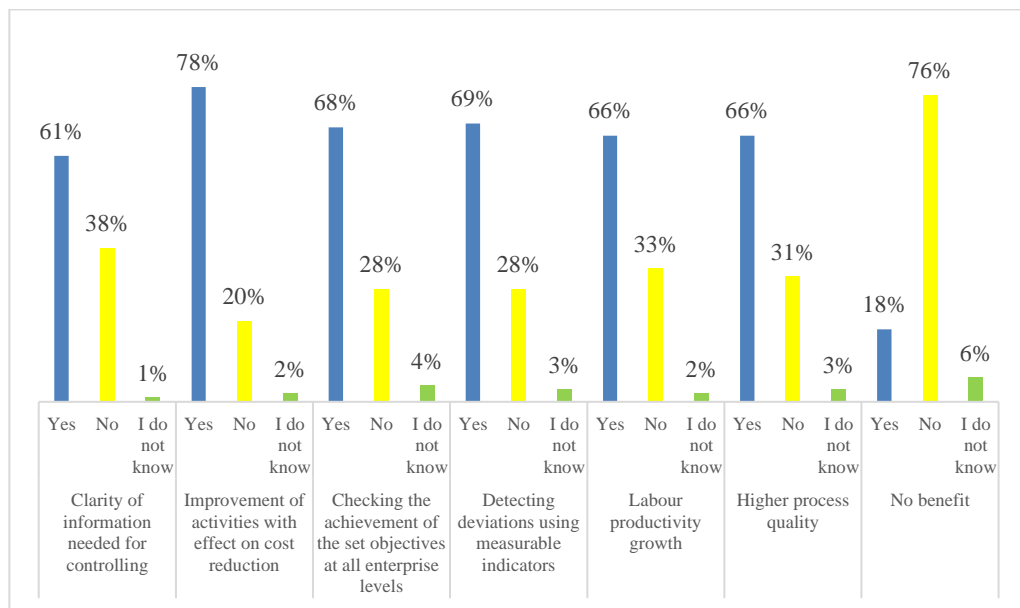
According to the results presented in Table 1, it can be stated that these options are not equally significant ( $p\text{-level} = 0.000$ ). Using the Wilcoxon test, the order of significance of each option was determined. Since the  $p\text{-level}$  ( $0.000$ ) is lower than the chosen level of significance  $\alpha$ , it can be stated that according to employees the implementing controlling into an enterprise has no financial benefit. Based on these results, *the H1 hypothesis was confirmed.*

In the case of determining the most significant non-financial benefits, respondents had a choice of seven options, where they could express their opinion on each of them using a 3-grade rating scale. Figure 2 shows that 78% employees consider the improvement of activities with effect on cost reduction as the most significant non-financial benefit of implementing controlling into an enterprise. Other non-financial benefits, such as detecting deviations, checking the achievement of set goals, or increasing labour productivity, are roughly at the

same level. The graphical evaluation of the significance of non-financial benefits is closely related to the evaluation of H2 statistical hypothesis.

**Tab. 1 Friedman and Wilcoxon test of H1 hypothesis.**

Friedman test		Wilcoxon test				
N	165	Financial benefits <sup>1</sup>	FB1–FB2	FB3–FB1	FB4–FB3	FB5–FB4
Chi-Square	112.569	Z	-1.444 <sup>b</sup>	-2.538 <sup>b</sup>	-1.373 <sup>b</sup>	-4.555 <sup>b</sup>
Df	4	Asymp. Sig. (2-tailed)	.149	.011	.170	.000
Asymp. Sig.	.000	a. Wilcoxon Signed Ranks Test b. Based on negative ranks. c. Based on 10000 sampled tables with starting seed 743671174.				



**Fig. 2 Non-financial benefits of controlling.**

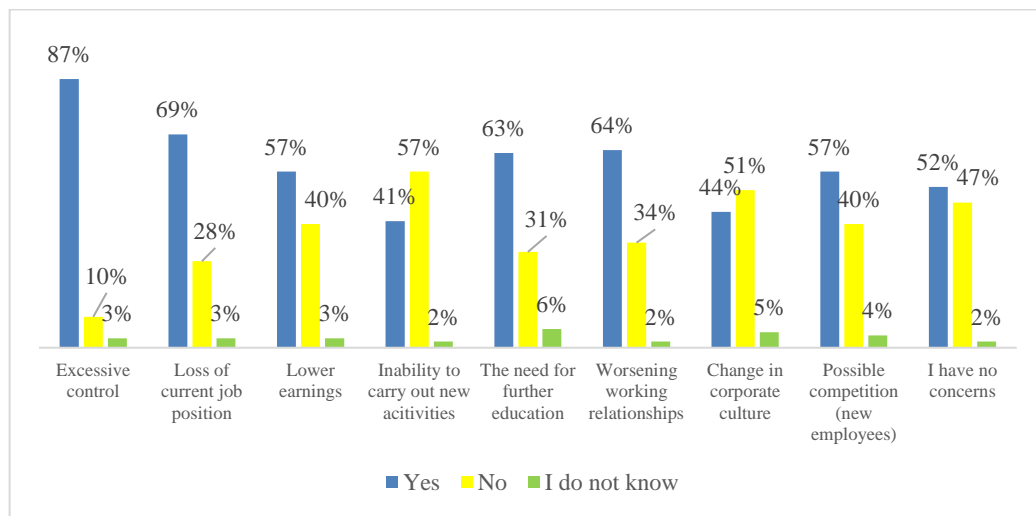
The results of Friedman test (Table 2) point out that these options are not equally important ( $p$ -level = 0.000). Subsequent use of the Wilcoxon test determined the order of significance of each option. Since the  $p$ -level (0.032) is lower than the chosen level of significance  $\alpha$ , it can be stated that according to employees the improvement of activities with effect on cost reduction is the most significant non-financial benefit of implementing controlling into an enterprise. Based on these results, *the H2 hypothesis was confirmed.*

The addressed employees consider excessive control as the most important barrier of implementing controlling into an enterprise. They fear that by implementing a complex management system, they will lose their position, change working relationships, and need further education. Employees consider the inability to carry out new activities as the least significant barrier. Despite fears of further education, they are not afraid of their eventual failure. The graphical evaluation (Figure 3) of the most significant barriers of implementing controlling into an enterprise is related to the evaluation of the H3 statistical hypothesis.

<sup>1</sup>FB1-enterprise value growth, FB2-enterprise result increase, FB3-direct wage increase, FB4-profitability growth, FB5-no financial benefit.

**Tab. 2 Friedman and Wilcoxon test of H2 hypothesis.**

Friedman test		Wilcoxon test					
N	169	Non-financial benefits <sup>2</sup>	NF1–NF2	NF3–NF1	NF4–NF3	NF5–NF4	NF6–NF5
Chi-Square	174.255	Z	-2.142b	-.218b	-1.043b	.000d	-1.444b
Df	6	Asymp. Sig. (2-tailed)	.032	.827	.297	1.000	.149
Asymp. Sig.	.000	a. Wilcoxon Signed Ranks Test b. Based on negative ranks. c. Based on 10000 sampled tables with starting seed 92208573. d. The sum of negative ranks equals the sum of positive ranks.					



**Fig. 3 The most significant barrier of controlling.**

The use of Friedman test revealed that all options are not equally important (p-level = 0.000). Wilcoxon test showed that p-level (0.000) is lower than the chosen level of significance  $\alpha$ , which means that employees consider excessive control to be the most significant barrier of implementing controlling into an enterprise. *The H3 statistical hypothesis was confirmed.*

After summarizing and then evaluating the questionnaire survey, it can be stated that 49% employees work in wood-processing enterprises in which controlling is not implemented. The trend of implementing controlling into an enterprise is not so popular in the Slovak Republic as in the countries of Western Europe. The positive signal is that more and more enterprises are planning to implement this complex management system to gain greater control over their activity. Increasing interest of implementing controlling or controlling instruments confirmed the further research. According to MIŠÚN (2017) changes are implemented and move from the largest enterprises to medium and later to smaller ones. The aim of the research was to found out if new controlling tools, methods and procedures were introduced in the respondent enterprise. From sample 120 respondents (36.25%) answered positively and 210 negatively (63.44%).

<sup>2</sup>NF1-clarity of information needed for controlling, NF2-improvement of activities with effect on cost reduction, NF3-checking the achievement of the set objectives at all enterprise level, NF4-detecting deviations using measurable indicators, NF5-labour productivity growth, NF6-higher process quality.

**Tab. 3 Wilcoxon and Friedman test of H3 hypothesis.**

Friedman test		Wilcoxon test				
N	148	Barriers <sup>3</sup>	B1–B2	B3–B1	B4–B3	B5–B4
Chi-Square	101.447	Z	-4.648 <sup>b</sup>	-.906 <sup>b</sup>	-.216 <sup>d</sup>	-1.444 <sup>b</sup>
Df	8	Asymp. Sig. (2-tailed)	.000	.365	.829	.149
Asymp. Sig.	.000		B6–B5	B7–B6	B8–B7	B9–B8
		Z	-4.648 <sup>b</sup>	-.906 <sup>b</sup>	-.216 <sup>d</sup>	-1.444 <sup>b</sup>
		Asymp. Sig. (2-tailed)	.000	.365	.829	.149
a. Wilcoxon Signed Ranks Test b. Based on negative ranks. c. Based on 10000 sampled tables with starting seed 562334227. d. Based on positive ranks.						

With the implementing controlling, many changes are coming to an enterprise, which can also cause some concern about this system. For this reason, the aim of the questionnaire survey was to find out what financial and non-financial benefits and barriers are seen by employees in controlling. The results of the questionnaire survey showed that employees do not see any financial benefit in controlling implementation; on the contrary, controlling for them constitutes the improvement of activities with effect on cost reduction. The findings are consistent with the results of the survey according to SEDLIAČIKOVÁ *et al.* (2018). It should be noted that while 72% of employees do not see any financial benefit in implementing controlling (confirmed by the H1 hypothesis), the same percentage perceives an increase in enterprise result as a significant financial benefit, which will ultimately be reflected in the compensation system. According to WRUCK (2001) behavioral changes on the parts of individuals are required for organizational change, and compensation systems affect behavior. Thus, it is critical to consider the role that compensation systems play in the process of organizational change and why establishing a strong, positive relation between rewards and performance is critical to bringing about value-creating organizational change.

Employees consider excessive control to be the most significant barrier of controlling implementation. According to ČAMBALÍKOVÁ and MIŠÚN (2017) command-and-control techniques are no longer enough in competitive in competitive environments where creativity and employee initiative are critical to business success. Their research has shown that the respondents with negative attitude while they are being controlled mentioned the lack of trust, lack of information, poor cooperation and great time consumption. Respondents who have a neutral attitude while they are being controlled understand the need of control and they take it as a natural part of processes. A proper control can have a positive effect and improve the state of things and they can also get some feedback to learn by their own mistakes. Respondents with a positive attitude to the control declared that it can help them to achieve the goals and plans, to increase the sense of responsibility and motivation and it can be beneficial to their professional growth. VERBURG *et al.* (2018) add controls may enhance employee performance both directly and through enhanced trust. This suggests that the link between control systems and trust is sensitive and related to the way in which behavior is controlled.

The fear of excessive control is to some extent justified and predictable. Employees

<sup>3</sup>B1-excessive control, B2-loss of current job position, B3-lower earnings, B4-inability to carry out new activities, B5-need for further education, B6-worsening working relationships, B7-change in corporate culture, B8-possible competition (new employees), B9-no concerns.

can feel less freedom, which can result in workplace conflicts. Employees are also worried about losing their current job positions due to a lack of skills or knowledge. This concerns can be avoided by properly informing employees about the changes to be made to the enterprises. The results are consistent with findings of authors BENABOU *et al.* (2012) and DEGEEST *et al.* (2017). According the authors, if there is insufficient employee awareness at all levels at the workplace and communication is abstaining, this can lead to worsening the working relationships at workplaces.

The research focusing on the psychological factors affecting employees in the implementation and enforcement phase in an enterprise shows that controlling is not a common management tool. Controlling will be fully functional in the enterprises when the psychological aspect of its implementation is systematically addressed, based on the partnership position of internal stakeholders in an enterprise, on mutual communication and discussion. Very important is the timely awareness of the planned changes by managers and owners, so that workers do not create their own conclusions and attitudes based on partial information that has penetrated the lower hierarchical levels of an enterprise, thus creating a distorted picture of upcoming changes (KLEMENTOVÁ - SEDLIAČIKOVÁ 2017, KLEMENTOVÁ *et al.* 2017).

MINÁROVÁ *et al.* (2015) add that emotional intelligence may help owners and managers solve problems by using logic and emotions, be more flexible in changing conditions, help colleagues at the workplace express their needs, think and respond to problematic employees with consideration, maintain positive and optimistic attitude, and constantly learn how to improve themselves, as well as their relations at the workplace, which is fundamental for success of the enterprise.

With implementing controlling system into the business practice of wood-processing enterprises, it is important to ensure that it consists of at least three phases leading to stakeholders' preparation for change management. In the *pre-implementation phase*, it is necessary to set the main objective of controlling with focus on long-term viability of the enterprise. Following the main objective, management needs to conduct an in-depth analysis of the current situation in order to detect management weaknesses. The main task of the top management is also to choose the most suitable way of implementing the controlling, while implementation within individual departments seems to be the most reliable way in view of the employees' concerns. It is also necessary to have a controller who will manage the entire implementation process, ensure its smooth functioning and inform the top management in a timely manner of any deviations. The next step is to select the adequate control software that is the choice between professional control software and Microsoft Excel-based software support. The implementation of controlling also entails a change in the employee motivation system and the need to inform them of upcoming changes in order to avoid conflicts and misunderstandings. The role of the controller should also be to familiarize employees with the benefits of controlling, which could contribute to a successful process of implementing controlling and creating a positive working atmosphere. During the *control implementation phase*, the controller is responsible for ensuring rational distribution of activities between individual departments or to entrust this task to the heads of individual departments. Within this phase, the competencies of the individual employees are reviewed, the position of which may be different in the innovated organizational structure compared to the original one. After determining and allocation tasks, competences and responsibilities between employees, they are trained with regard to new conditions. The situation may arise where some working positions will require a higher degree of education or change management lead to the creation of new positions with the need for additional training of current employees. As the next step, control software is modified by the supplier to include updated information from the performed analyses, including information provided by the top management and



controller, respectively all internal data from originally used programs is imported into the software. For the smooth implementation of controlling, it is necessary to reassess and innovate the way of communication between individual departments and the top management. The final step of the implementation phase of the controlling is the application of the trial version of the controlling into a particular enterprise area. The top management and the controller observe employees' responses and feelings connected with implementing controlling and detect any deviations that could not be predicted in advance. In this step, cooperation of all stakeholders is essential. The *final phase* is associated with the elimination of errors and deviations in the trial version of the controlling implementation. The role of the controller is to carry out an in-depth control to detect errors and to set out variant solutions to prevent their reoccurrence. The controller is responsible for informing management of the results of in-depth analysis and their impact on the enterprise. Its role is to make suggestions to the management with an emphasis on areas that need to be improved for the smooth running of controlling. The enterprise's management should, after consultation with the controller, inform employees of the results and prepare them for the gradual extension of control activities to multiple areas. The final version of controlling implementation is its introduction into the whole enterprise, in which it has its unique position and creates a complex management system. The whole process of implementing controlling is completed by its active use in an enterprise. The use of controlling in an enterprise should be successful, positive perceived and respected by employees by following all the previous steps.

SEDLIAČIKOVÁ (2018) is also in favor of dividing the process of controlling implementation into several successive phases. She emphasizes the need to communicate ideas and changes with employees during all phases, as employees will ultimately be the ones who will use this management tool.

## CONCLUSION

Controlling as such does not have a very large representation in the territory of the Slovak Republic. Many enterprises perceive this system only as a control system. However, controlling can be understood as a process of management and coordination aimed at supporting the management not only of the enterprise but also of management in the planning and implementation of business activities. Controlling has come to us from Western Europe, where its use is commonplace.

The issue of controlling and the psychological aspects affecting the enterprise employees during its implementation is a very current and quite extensive topic. It is necessary to look at controlling not only in economic terms in the context of its financial and non-financial benefits, but also psychological. By combining these two sciences, it is possible to create conditions in an enterprise that will have a positive impact on all stakeholders.

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