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## **IMPLEMENTATION OF INTERNAL CONTROL MECHANISMS AND THE POSSIBILITY OF IMPROVING FINANCIAL MANAGEMENT IN LARGE AND MEDIUM-SIZED AGRICULTURAL ENTERPRISES**

### **SUMMARY**

Countries in transition should encourage internal processes to improve management in all business segments. One of the ways to improve this is the introduction of internal control mechanisms. This way of dealing with internal factors requires a new organization, resources necessary to cover the basic and extraordinary costs of introducing internal control mechanisms, as well as additional training of employees in those entities. This paper deals with the application of three forms of internal control mechanisms, i.e. internal audit, internal control and the combination of these two forms with financial management and control. The intention was to discover the synergistic effects in large and medium-sized agricultural enterprises arising from the use of internal control factors. The obtained results are far more positive than expected, especially those related to the generation of income in terms of the size of the company and the established internal control mechanism.

**Keywords:** internal control, internal audit, financial management and control

### **INTRODUCTION**

Modern management by top management in agricultural enterprises imposes a real need for improving business decision-making. Essentially, this means that there is a real need to introduce news into business decision-making processes (Popović *et al.*, 2015; Bakmaz *et al.*, 2017; Bjelica *et al.*, 2017; Blair, 2017; Alibegović *et al.*, 2018; Radović *et al.*, 2019).

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Respecting the views expressed by the author, in this study the authors set as their main goal the observation of the functioning of the implementation of internal control mechanisms from the point of view of improving functional management in the operations of large and medium-sized agricultural enterprises in the Republic of Serbia, which is in accordance with already published works of the author such as (Nowak *et al.*, 2016; Chen *et al.*, 2017; Murphy, 2019). In this way, the setting of the basic goal essentially meant observing the importance of applying internal control in agricultural production. In addition, the authors of the study set and carried out a research goal in this study that can be defined as emphasizing the importance of applying internal control in order to make essential improvements in the organization of agricultural enterprises, all with the aim of achieving better business results. In this way, the authors set research goals in this study with the expectation of realistically pointing out the importance of the fact that apart from the existence of the importance of applying internal control in, for example, the public sector, which was pointed out by authors such as (Wynen & Verhoest, 2016), there is also a real the need to study the application of internal control in the organization of agricultural production, which is essentially what this study draws attention to.

Based on the stated objectives of the research, the authors of the study, on the basis of the proposition they presented, which states that there is a great importance in the application of internal control in agricultural enterprises, fundamentally answered the question of whether there is an importance of the expediency of observing the application of internal control. In order to achieve this, they respected basic postulates such as the one that only management should use real business reports in order to be able to make rational business decisions, which was highlighted in works (Bakmaz *et al.*, 2017; Bakmaz *et al.*, 2020; Bjelica *et al.*, 2017).

The essential improvement of decision-making aims to increase the real control of the production process in all parts of the company, which is of particular importance for the organization of agricultural production, which we find in numerous works by authors (Franks & Maier, 2001; Duhovnik, 2007; Buterin *et al.*, 2017; Hope & Vias, 2017; Izza, 2019; Gandi, 2019; Bojović *et al.*, 2019; Bakmaz *et al.*, 2020; Vitomir *et al.*, 2020). At the same time, the authors point out that they basically agreed with the stated views of the authors, but they also went a step further by observing the application of internal control from the point of view of business success in agricultural enterprises. In addition to the essential improvement of business decision-making by top management, numerous authors emphasize the importance of the application of numerous international standards, such as the application of international accounting standards, financial reporting standards, standards of the auditing profession and others, which was pointed out by numerous authors (Wang *et al.*, 2014; Wang, 2016; Popović *et al.*, 2016; Quattrone, 2017; Popović *et al.*, 2017; Toms, 2019; Radović *et al.*, 2019). In addition to the implementation of standards, it is also important to consider the application of real control over decision-making

processes in companies' operations (Selarka, 2005; Williams, 2010; Majstorović *et al.*, 2015; Lee, 2016; Topcu *et al.*, 2017; Levis & Young, 2019. Coffee, 2019).

On the basis of the above, several important factors can be observed in business decision-making.

The first factor would be the appreciation of the application of international standards as an important factor for improving top management decision-making.

Another factor would be the application of control in order to improve real business decision-making.

The third factor would refer to the fact that top management should adopt the general postulates of business decision-making and management in companies, which they pointed out in their works (Carei *et al.*, 2000; Dražić-Lutliski *et al.*, 2012; Ivaniš & Popović, 2013; Jerman & Novak, 2014; Jingwen, 2017; Dmitrović-Šaponja & Suljović, 2017; Corona *et al.*, 2019). The goal of such observation would be to achieve the best possible business results in the operations of companies managed by top management.

The pronounced systematized three groups of factors are indisputably important for improving business operations. They were the basis for defining the research objectives by the authors of this study. However, the authors of this study went one step further. They conducted research in which they focused on the possible increase in business safety in an agricultural enterprise. They did this by emphasizing the importance of making realistic business decisions in agricultural enterprises, especially after the introduction of the internal control system in the processes of realistic business decision-making.

## MATERIAL AND METHODS

The research conducted by the authors of the study was conducted on agricultural enterprises that are registered within the Agency for Economic Registers of the Republic of Serbia (AEGRS, 2023) as enterprises that perform the main activity in agriculture. In order to enable the acquisition of correct beliefs, the authors of the study processed a sample of 54 large companies that carry out the main activity in agriculture, as well as 224 medium-sized agricultural companies in the Republic of Serbia, i.e. the study includes an analysis of 278 agricultural companies that are registered with their headquarters in the Republic of Serbia.

The author's observation and research in this study was primarily based on the observance of the Law on Accounting in the Republic of Serbia (LA-OGRS, 2019/2021) regarding the classification of companies into medium and large companies operating in the Republic of Serbia.

Based on the mentioned Law, the starting point of the authors of the study was that medium-sized agricultural enterprises in the last year of operation meet at least two of the following criteria:

- have an average of 50 to 250 employees per year,
- that they have achieved an annual income of 8,000 to 40,000 average gross earnings of employees in the Republic of Serbia,

- that the average annual property value is in the range of 6,000 to 30,000 of the average gross salary of employees in the Republic.

The application of the same Law defining large agricultural enterprises in the Republic of Serbia would be that they have more than 250 employees and that they exceed the annual income of 40,000 average gross wages of employees in the Republic of Serbia, as well as the criterion that the average annual value of assets exceeds the value of 30,000 average gross wages of employees in the Republic of Serbia.

Recognizing the stated limits on the basis of which they performed observation and research regarding the application of internal control in agricultural enterprises, the authors of the study conducted a survey in the stated number of agricultural enterprises. As part of the conducted survey, the top management was guaranteed anonymity, that is, it was guaranteed that the generalities of the company would not be presented, but that the results of the survey would be used for scientific purposes for the preparation of this study.

The next level of observation was focused on processing the data obtained by the survey. Within this part of the research, the authors set out the use of one or more forms of control in the regular operations of a large and medium-sized agricultural enterprise. According to that criterion, the observation was made in relation to the use of: internal audits, internal controls and the use of financial management and control mechanisms.

Comparing the statements of authors who basically looked at different sizes of companies, for example authors from Croatia, it is possible to see the existence of some matches with the results in this study. Namely, the authors (Mamić-Sačar *et al.*, 2015) emphasized the importance of the empirical existence of the simplification of accounting regulations, because the application of such accounting could affect the reduction of the company's operating costs. This research implicitly emphasizes the importance of applying internal control in the operations of an agricultural enterprise, and indirectly confirms the importance of proper treatment of accounting by the top management that manages agricultural enterprises.

### **Statistical analysis**

After the analysis, the authors used standard methods of statistical data processing, to then group the survey results and present them in the form of a table. After that, they performed testing using Chi-Square Tests, in order to strengthen the obtained research results.

## **RESULTS AND DISCUSSION**

The application of different forms of internal control mechanisms was observed by the authors of this study in relation to the realized business of two types of companies of different sizes. Namely, observations were made in large and medium-sized agricultural enterprises.

Table 1. Displays the proportion of forms of application of internal control mechanisms

Form company	The values	Internal control mechanism			
		Internal Audit	Budding	Flowering	Grain ripeness
Big			26.8	41.7	9.4
			27.3	42.3	10.7
			29.1	44.4	11.3
	Count	16	29.7	47.3	11.4
	Expected Count	20.0	30.3	48.8	12.5
Medium Defective	Percentage of repre-sentation in relation to the total number of enterprises (%)	29.6	23.6	39.1	18.1
	Count	87	28.6	43.1	10.0
	Expected Count	83.0	29.3	42.4	10.9
	Percentage of repre-sentation in relation to the total number of enterprises (%)	38.8	29.7	46.7	11.2
	10		29.4	47.9	11.8
Total			0.25	1.50	0.9
	Count	103	0.85	1.60	1.10
	Expected Count	103.0	1.01	3.20	2.0

Source: Authors' calculations

The authors assumed that there is no difference in the application of the form of internal control mechanisms in large and medium-sized agricultural enterprises.

The presentation of the obtained results is given in table 1.

In addition to the above, the authors performed testing using the Chi-square test. The goal of using Chi-Square Tests was to strengthen the obtained results regarding the real business of large and medium-sized agricultural enterprises that introduced some forms of internal control in real business.

The results are shown in Table 2.

Table 2. Overview of applied forms of internal control mechanisms in enterprises using Chi-Square Tests

Used for testing	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.190 <sup>a</sup>	2	.004
Likelihood Ratio	10.486	2	.005
Linear-by-Linear Association	6.838	1	.009
N of Valid Cases	278		

Based on the obtained test results, namely the Chi-square test, it can be seen that the results are as follows. The obtained value of Pearson Chi-Square is 11.19 and the value of df is 2, where the value is  $p < 0.005$ , which can be seen in the display in Table 2.

In the theoretical observation of the application of new forms of control in agricultural enterprises, it can be noted that top managers used the available resources that existed in the enterprises insufficiently efficiently (Moore, 1998; Nedeljković *et al.*, 2022; Nožinić *et al.*, 2022; Popović *et al.*, 2022).

However, in this study, the authors show that the obtained results are such that the connection between the form of implemented internal control mechanisms and the business results in the mentioned two types of agricultural enterprises can be rejected with certainty (the criterion was the size of the agricultural enterprise).

The results of operations after the implementation of internal control are such that differences can be observed in the operations of medium-sized and large agricultural enterprises that have implemented internal control.

This indicates that the form of implemented internal control mechanisms is different in at least one of the analyzed groups. In addition, it can be observed that there is a significant difference in the actual application of internal control mechanisms in agricultural enterprises that differ in size.

The results obtained by the authors of this study indicate that a combination of: internal audit, internal control and financial management and control (about 46%) is most often applied in large agricultural companies. In contrast to large, medium-sized agricultural enterprises, internal control and internal audit are dominantly applied (about 38%), table 1, regardless of the size of the samples monitored by the research.

The authors of the study point out that in the Republic of Serbia, as well as in the region, there are not many works that deal with the practical study of the introduction of innovation in company management processes. Therefore, there are not many examples in the theoretical-practical sense that could indicate the possibility of real improvement of the management process through the application of internal controls. Such an application would be extremely important in the business of agricultural enterprises, because they operate with a long period of repayment of funds, face an insufficient amount of necessary funds in a certain time, and so on.

The author's research in this study was conducted in agricultural enterprises and in two important forms of agricultural enterprises. In the author's opinion, the goal of the research is satisfied because the obtained results indicate that in large and medium-sized agricultural enterprises, in addition to the need to introduce internal control, there is also a practical difference in the use of the implemented form of internal control in relation to the observed size of the agricultural enterprise. In this way, the authors determined that there are significant differences in the application of the form of internal control mechanisms, as well as that there is a connection between the size of the agricultural enterprise and the application of the form, i.e., the mechanism of using internal control in the actual work of the agricultural enterprise.

### CONCLUSIONS

The results we found that there are significant differences in the application of the form of internal control mechanisms, that is, there is a connection between the size of the organization and the application of the mechanism of internal control mechanisms in the actual work of the company. We strengthened the mentioned positions after the test and it was determined that there are differences in the operations of medium-sized and large companies. There is a significant difference in the application of internal control mechanisms in companies of different sizes. In large companies, a combination of internal audit, internal control and financial management and control is most often applied (about 46%), while medium-sized companies apply internal control and internal audit to approximately the same extent (37.5 to 38.8%), while in large companies most often use a combination of internal audit, internal control and financial management and control (about 46%).

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