

ная запись, прошли долгий путь, и, не меняя своего предназначения, находят отражение и в современном бухгалтерском учете, построенном на моделях средневековой бухгалтерии.

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### ANALYSIS OF THE STATE OF INTERNAL CONTROL SYSTEM IN THE LITHUANIAN EXTRACTIVE INDUSTRIAL ENTERPRISES

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**Introduction.** AS the competition is growing in the modern world, the technologies are rapidly developing and changing together with the market demands, and as the business processes are getting more complex, it is becoming more and more difficult to manage the enterprise and perform its internal control. Therefore the managers of extractive industrial enterprises need such a control management system that would allow managing the enterprise's activity effectively and securing the implementation of the ser goals and tasks. [1, 2] stress that only the effective internal control present in the enterprise helps to secure the productive economic activity, to guarantee that the laws, post-statutory acts and enterprise's regulations are followed, to implant proper protection methods of enterprise's property, to avoid mistakes, and to reveal misusing, etc. However, another untraditional attitude is also often encountered in the scientific literature, for example [3, 4] state that the effective internal control reveals the enterprise's development perspectives, helps to notice the risk hazardous to enterprise's existence – in such a way this control becomes an important risk management tool.

It is noticed that the extractive industry is one of the most important and significant for the national budget of the Republic of Lithuania, thus the internal control research in this area is important and meaningful not only for the enterprises, but also for the State. According to [5, 6, 7], the resources of earth entrails are one of main driving forces of society's economic and social progress, and Lithuania is not an exception.

So the object of this research is Lithuanian extractive industrial enterprises.

The objective of the research is to analyze the state of internal control in the Lithuanian extractive industrial enterprises.

In order to conduct the successful and reliable research, the following tasks are set:

- To identify the internal control and its importance for extractive industrial enterprises;
- To conduct the research on internal control in the Lithuanian extractive industrial enterprises;
- To determine the areas of internal control system, which have to be improved, in the Lithuanian extractive industrial enterprises.

During the work the Lithuanian and foreign scientific works, empirical tests and economic literature were analyzed, and the practice with regard to internal control, concept of its effectiveness and assessment was studied.

#### **Process of scientific research and interpretation of results received**

During the first fifty years of the 20<sup>th</sup> century the amount of mineral resources extracted was the same as during the previous life time of humanity, and in recent several decades the extraction increased by 50 per cent more, and it is still growing (Ministry of Environmental Protection, 2011). The sector of extractive industry demands for big investments for searches of natural resources and creation of new technologies. According to [8, 9], in case of big demand for raw materials in the market, the bigger part of money is attributed to extraction of resources and often this causes damages to internal control system, because due to negligent or bad attitude of the managers, the level of frauds, deceits and corruption gets very high. Such results were confirmed by the research of extractive industry done in 2010 by the audit enterprise "Ernst&Young" [10] with regard to the extractive industry in the United States of America, which also showed that it is quite difficult to attract big investments for execution of internal control so that the organization and execution effectiveness were improved.

According to the done scientific researches, similar problems in the extractive industrial sector are present not only in Lithuania, but also in other countries, which in presence of favorable conditions for development of mistakes and frauds in the sector of extractive industry exactly in the area of resources, allow assessing the management of extraction of natural resources and its effectiveness using the internal control functions in the enterprise. It is also noted that the same number of frauds and mistakes is also encountered in the area of income, i.e. profit and value-added (VAT) taxes. According to [11], if deliberate or unintentional mistakes or frauds in the area of re-

sources management exist, they also cause the inaccuracies in the accounting system of extractive industrial enterprise, which are directly related to income and profit of the enterprise. Thus it is possible to state that the frauds and mistakes in the area of resources have direct impact on inaccuracies in the area of income tax. Therefore, following [12], the securing of effectiveness of present internal control system is especially important.

According to the analysis of assessment of internal control system present in the extractive industrial enterprises, the number of deliberate and unintentional mistakes and frauds is present. Such results are determined by specific character of activity of the Lithuanian extractive industrial enterprises and specific accounting system in the enterprise. All the Lithuanian extractive industrial enterprises (without any exceptions) encounter mistakes, but their assessment may be very different and it may depend on the fact whether these mistakes cause financial losses to the enterprises, as the majority of mistakes may be insignificant, rapidly traceable and can be eliminated. However, such results allow stating that the internal control system in the Lithuanian extractive industrial enterprises is ineffective and this causes existence of mistakes and frauds. The frauds in the enterprises are initiated by the employees, and not by the enterprise's management. Of course, information about frauds committed by the latter by be learnt from the special services. Besides, according to F. R. Jacobs, [13], usually it is difficult to prove the most frequent frauds even on the level of the enterprise, because they are committed not by one employee, but by the entire chain of them.

Usually the mistakes are determined by the particularity of enterprise's accounting, which is caused by difficult accounting policy of the resources and quite difficult tax base that differs from other manufacturing or commercial enterprises. In such a case [14] suggest to consider the accounting of sales-purchases to be the main difference, because purchases of resources are not present in the extractive industrial enterprises, especially as the sales have to be adjusted to the norms determined in the extraction permits of natural resources. Thus the sale process is the main area, where the internal control has to be especially profound because different to the sale process, the frauds and mistakes may be equally controlled by the enterprise's management and employees. Besides, the person executing internal control has to be familiarized with the particularity of activity and technologies of the Lithuania extractive industrial enterprises, and to have big work experience in this area. Looking from the side of purchase process, it has to be mentioned that their mistakes and frauds are usually initiated by the enterprise or its management, and not by the employees, thus the effectiveness of internal control is determined by external factors due to the organizational structure of the enterprise and certain relations of subordination, thus the work experience of the employees or familiarization level with the activity's particularity remain insignificant.

Meanwhile the situation is different when the accountings of debts and liabilities to the enterprise or short-term property transferred to the enterprise's employees,

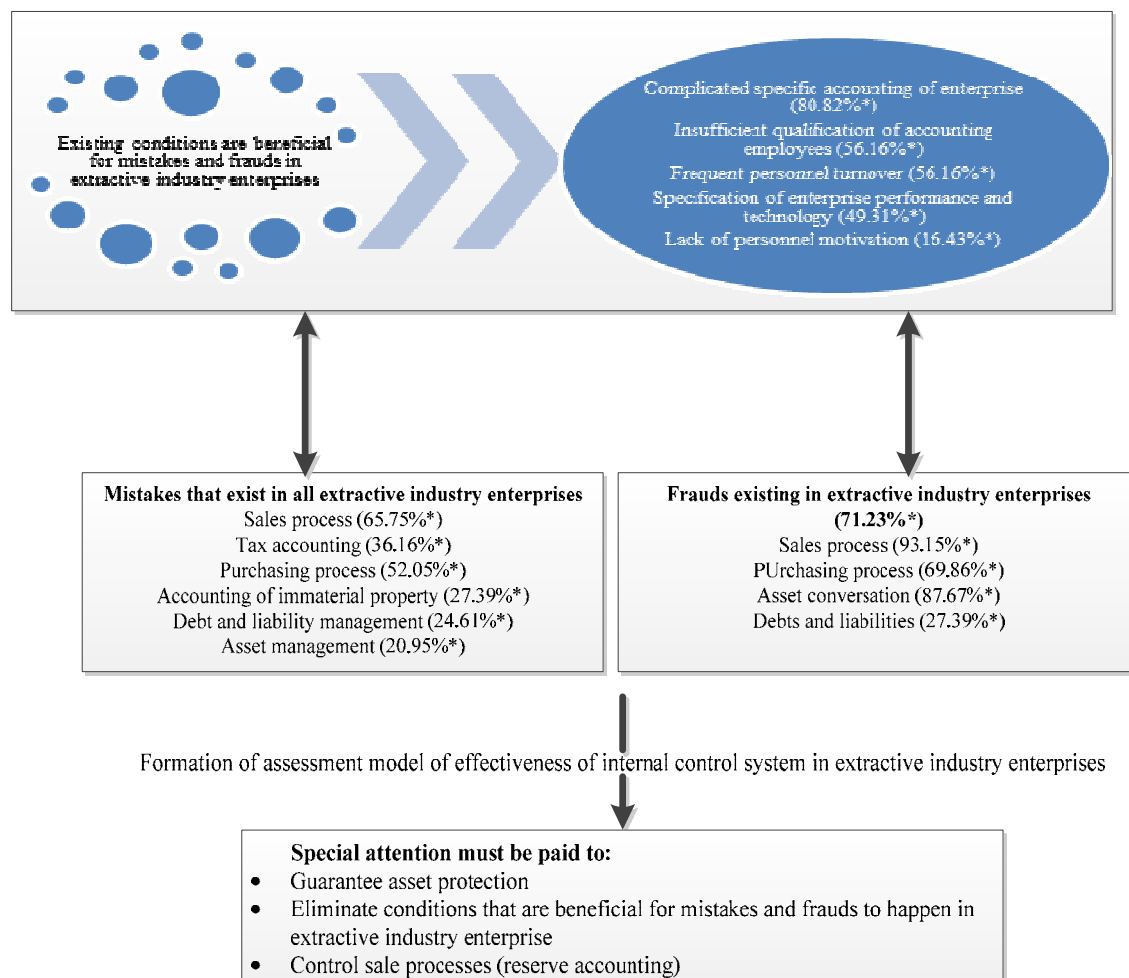
including the resources, are analyzed. In these areas the frauds or mistakes are most frequently initiated by the enterprise's staff, thus the experience of employees of the internal control department and their familiarization with the activity's particularity become very important factors, although the latter factor is not considered significant, because the accounting of debts and liabilities of the extractive industrial enterprises is not determined by any differences or particularities. According to [15], when the analysis of taxes and immaterial property are analyzed, it is also noticed that the mistakes and frauds in these areas are mostly caused by employees, and only very small percent is initiated by the enterprise's management. Contrary to the aspect of tax accounting, when the employee of internal control department wants to find frauds and mistakes in the accounting of immaterial property, such high requirements for experience or specific skills are not set, because here the most important factors are accuracy, carefulness and suitable constant control; whereas in order to identify frauds and mistakes in tax accounting and to predict the preventive means against the development of favorable conditions for frauds and mistakes, the big practical experience of internal control personnel and specific skills are necessary, because only such skills allow assessing the final specific tax accounting of extractive industrial enterprises.

According to the research results of extractive industrial enterprises, they have ineffective internal control system because:

- The deliberate or unintentional mistakes are encountered in all the analyzed enterprises without any exception;
- The majority of analyzed enterprises encounter frauds initiated by the employees;
- The present frauds and mistakes allow making the presumption that at least one or more weaknesses exist, which create conditions for development of frauds and mistakes (see Fig.).

The done research allows stating that the present enterprises of extractive industrial sector have insufficiently effective internal control system because even if deliberate or incidental mistakes or frauds are not predominant in the enterprise, it is still not possible to state that it has effective internal control system. The effective internal control system present in the extractive industrial enterprise may become unsuitable or even ineffective when the circumstances change, thus the assessment of its effectiveness is one of the tools to improve the accounting policy, to protect the company's assets, and to secure the correct accounting and effective activity. Although internal control is the main part of the enterprise's management system, but the modeling of its effectiveness' assessment is not widely discussed or analyzed in global scientific environment. It is not completely clear, how and using what methods the enterprise could secure effectiveness of internal control system. Besides there is no created assessment model of internal control system, in extractive industrial sector, too, which would allow optimizing control and its activity with regard to the particularity of the enterprise's activity and other factors.

## INEFFECTIVE INTERNAL CONTROL SYSTEM IN ENTERPRISES OF EXTRACTIVE INDUSTRY



\* - Results of respondents according to form-filling research.

Fig. Identification of the state of internal control system in enterprises operating in extractive industry sector

Source: compiled by the author.

**Conclusions.** The accounting particularity of the Lithuanian extractive industrial enterprises determines that the mistakes committed by the employees initiated by fraud are almost equal to frauds initiated by company or its management. Thus as the staff of the Lithuanian extractive industrial enterprises may initiate the frauds successfully, the persons executing internal control need big work experience in the enterprises of such kind, also they have to be well familiar and know the accounting particularity of such enterprises in relatively high interpretative level. The effective internal control system present in the extractive industrial enterprise may become unsuitable or even ineffective when the circumstances change, thus the assessment of its effectiveness is one of the tools to improve the accounting policy, to protect the com-

pany's assets, and to secure the correct accounting and effective activity. According to the research results of extractive industrial enterprises, they have ineffective internal control system because the deliberate or unintentional mistakes are encountered in all the analyzed enterprises without any exception; the majority of analyzed enterprises encounter frauds initiated by the employees; the present frauds and mistakes allow making the presumption that at least one or more weaknesses exist, which create conditions for development of frauds and mistakes.

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## COOPERATION OF SCIENCE AND BUSINESS WITHIN THE CONTEXT OF PROMOTION OF INNOVATIONS AND BUSINESS

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**Introduction.** In presence of present economic conditions and tendencies the cooperation of scientific institutions, which are usually equaled to universities, and business, its demand, possibilities and perspectives are becoming the topic that is discussed more and more often. The importance of this research area is manifested not only by rapidly growing number of international business and scientific cooperations, but also by the uprise of various programs of innovation support and promotion of cooperation. It is often stressed in the scientific literature that strong economics, stable financial system, high level of new technologies, and perspective development of innovations are achieved by the States, which pay the most attention to and promote the expansion of cooperation between high science and business. According to J. Kim, S.J. Lee, G. Marschke (2005), the formal and informal cooperation agreements are closely related to the management of knowledge and its implementation in practice, whereas the performed scientific researches allow stating that the cooperation of business institutions with universities and scientific research centers only improve the technological and innovative advantage of the companies, thus the competitiveness between the business subjects is also improved. However, some scientists, for example D.C. Mowery, B.N. Sampat (2005), K. Laursen, A. Salter (2004), T. Bjerregaard (2010), state that universities and scientific research centers are not the best partner for business subjects, because of quite strong cultural differences, which result in minimal reclamation of innovations and technologies in practice. Besides, it should also be noted that the cooperation of scientific institutions and business subjects in the area of innovation creation and implementation is possible exclusively in some business areas, among which only the technological cooperation should be distinguished (W.M. Cohen, D.A. Levinthal, 1989, 1990). However it is not meaningful to state that the demand for business and scientific cooperation exists only in technologies, thus all the possible cooperation channels should be considered in order to promote the long-term economic potential of the country exactly within the context of creation of innovations and their practical applicability.

Thus the object of this research is the cooperation of business and scientific institutions.

The object of research is to identify and elaborate the cooperation of scientific institutions and business subjects within the area of creation and implementation of innovations.

In order to conduct the successful and reliable research, the following tasks are set:

- To identify the cooperation of business and science and its course;
- To predict and assess the cooperation possibilities;
- To analyze the demand for innovations in order to promote business.