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INTERCONNECTION BETWEEN INTERNAL CONTROL AND THE ASSESSMENT OF RISK OF FINANCIAL STABILITY LOSS BY EDUCATIONAL INSTITUTIONS

The paper determines the basic approaches to the process of internal control of educational institutions, the goals and the components of internal control of educational institutions: risk assessment; information environment; control environment; means of control; monitoring of control means. The authors have detected the imbalance in control procedures, as well as in the sequence of setting goals for regulation purposes. Indicators and approaches to assessment of the risk of financial/economic sustainability loss by educational institutions are considered.
Keywords: internal control; educational institution; the risk of financial/economic sustainability loss.

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ВЗАЄМОЗВ'ЯЗОК СИСТЕМИ ВНУТРІШНЬОГО КОНТРОЛЮ ТА ОЦІНЮВАННЯ РИЗИКІВ ВТРАТИ ФІНАНСОВОЇ СТІЙКОСТІ ЗАКЛАДІВ ОСВІТИ

У статті виявлено основні підходи до процесу внутрішнього контролю освітніх установ, цілі та складові внутрішнього контролю в таких установах: оцінювання ризиків; інформаційне середовище; контрольне середовище; засоби контролю; моніторинг засобів контролю. Виділено проблеми незбалансованості процедур контролю і ризиків, а також послідовність визначення цілей при регулюванні. Розглянуто показники та підходи до оцінювання ризику втрати фінансової/економічної стійкості освітніми установами.
Ключові слова: внутрішній контроль; освітній заклад; ризик втрати фінансової/економічної стійкості.
Табл. 2. Літ. 18.

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ВЗАИМОСВЯЗЬ СИСТЕМЫ ВНУТРЕННЕГО КОНТРОЛЯ И ОЦЕНКИ РИСКОВ ПОТЕРИ ФИНАНСОВОЙ УСТОЙЧИВОСТИ ОБРАЗОВАТЕЛЬНЫХ УЧРЕЖДЕНИЙ

В статье выявлены основные подходы к процессу внутреннего контроля образовательных учреждений, цели и составляющие внутреннего контроля образовательных учреждений: оценка рисков; информационная среда; контрольная среда; средства контроля; мониторинг средств контроля. Выделены проблемы несбалансированности процедур контроля и рисков, а также последовательность определения целей при регулировании. Рассмотрены показатели и подходы к оценке риска потери финансовой/экономической устойчивости образовательными учреждениями.
Ключевые слова: внутренний контроль; образовательное учреждение; риск потери финансовой/экономической устойчивости.

Problem statement. Every university is carrying out its activities, using huge volumes of resources and therefore, also carrying the same huge amount of liabilities for the creation, dissemination, use and storage of knowledge. At this, university employees play the key role in maintaining the education standards and deploy ethnical methods in teaching using all available for the university resources. Considering the

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instability of economic situation in the country and the world in general, control has become an important component of the university education process, and the functions of control cover not only safekeeping and rational use of resources but also include the detection of all risks related to university activities.

At present the classification of risks adherent to university activities has been widen significantly, thus requiring deeper and further research.

Recent publications analysis. The issues of internal control has been considered by the following Russian economists: M. Melnyk (2003), T. Sheshukova and M. Gorodilov (2005), E. Voznesenskiy (1973).

Internal control in particular in education institutions has been considered by the following Russian and foreign researchers: R. Biciulaitis (2001), R. Bulyga (2014), T. Dinapoli (2007), A. King (2011), D. Mackevicius (2001), T. Serebryakova (2010), O. Shabrov (1990), D. Shim (2011), M. Simmons (1995), A. Zrelov (2004).

Analysis of the economic condition in general and of financial sustainability of universities can be also found in the works of domestic (Russian) economists: S. Arzhenovskiy (2002), S. Belyakov et al. (2008), N. Kelchevskaya (2002).

Research objectives. The key objective of the research is studying theoretical and methodological approaches to risks estimation, including the risk of losing financial/economic sustainability of the internal control system in education institutions.

Key research findings. Internal control is the key component in a contemporary management system for a university which enables increasing the efficiency of education, research and extra-curricular activities.

First of all, internal control helps predicting the inconsistencies in any structure and reducing the related risks. R. Bulyga (2014: 12) states that "if the system of internal control is working efficiently, there is no need to carry out a detailed external audit, because the internal control system can be trusted in part of detecting mistakes and predicting the norms violation".

Internal control is also a process which in itself is an optimal guarantee for achieving the following objectives: efficiency and productiveness of all operations; trustworthiness of financial reports; compliance with legal norms and regulations. Internal control in university must have a systemic character, and it needs to be carried out at all levels of organizational structure.

The system of internal control is aimed at achieving the highest quality of training/teaching/learning. Therefore, the system of internal control in a university must have the following elements in it:

- development of unified standards on educational processes and other operations of a university;

- development of an original methodology (designed for a particular university) for monitoring all activities in a university;

- systemic monitoring of all educational processes, separate programs and of all activities in all structural units of a university;

- adjustment of university programs according to the results of monitoring;

- coordination of performance of all structural units and all employees for the achievement of the common aim of university development.

At the same time monitoring has to have an original program and methodology, tailored to the needs of a particular university, its education programs, regional

specifics and features of major enterprises nearby which potential are the key future employers.

Coordination of activities, at the level of structural units and at the employees' level means the development of common corporate spirit, common culture and unified university style. At this, there should not be any difference between public and private universities, since the market itself and competitiveness between universities set certain standards in the relation, and they should not be disregarded.

Accordingly, for the realization of its key goal of activities, university, working under tight competition with other education institutions, has to assess its risks from all the related activities. Especially important is the assessment of risks during enlargement, when several universities are merged together and the issues of planning further activities and working out further development strategies are impossible without thorough and timely assessment of risks.

The Committee of Sponsoring Organizations (COSO) has suggested the model for control and assessment of risks known as ERM (enterprise risk model), which joins all elements of internal control into one system of organization's risks management (Guidance on..., coso.org). According to this COSO model, the system of internal control can be divided into the following constituents: risks assessment; information environment; control environment; means of control; monitoring of control means. The key components of the internal control system over university activities are essentially the same five elements, as mentioned above. Organization and functioning of this system depends on the size and specific features of a particular higher education institution. According to the widely spread in the world practice principles of the internal control system construction, the university itself has to provide the interconnection between the elements of such a system. At this, each element can be attributed to all levels of the system's goals: strategic, tactical, operational, reporting goal and the goal of compliance with legal requirements. The COSO approach to university internal control structures has to be oriented, inter alia, on the assessment of risks related to organizational processes and ICT application. Within this particular study let us consider this particular element of COSO − risks assessment.

Risk here reflects the probability of action or event having a negative influence on university performance. Major representations of risk in this context are mistakes, flaws and fraud. To achieve its strategic goals, university management has to maintain the balance between risks and the means of their control.

This is why control procedures have to be developed in a way to decrease the risk to the acceptable level. Reaching this level of acceptance would guarantee the security of all funds, of financial information, compliance with legislation and regulations etc. The most widely spread problems related to the disbalance between procedures and risks are presented in Table 1.

To reach the needed balance between the risks and the means of their control certain volume of internal funds should be spent on prevention, thus guaranteeing the added value, economic expediency and less risks.

Disbalance between risks and control means would eventually mean more opportunities for fraud in a university. Traditionally, there are three major factors in any fraud: motivation, opportunity and personal incentives.

Table 1. **The problems related to the disbalance between control procedures and risks,** *authors' development*

Excessive risks	Excessive means of control
Loss of funds, assets and access to grant opportunities	Too much of red tape
Wrong strategic and operational decisions	Productivity turndown
Non-compliance with legislation and regulations	Overcomplicated control procedures
Overregulation in the sector in general	Too much time being spent on the processes which do not bring value
Public scandals, reputational losses	

Motivation is the situational pressure expressed in the form of need in money, personal satisfaction from owning something and/or increased fear of the inability to have something. It is really hard to influence a person, motivated to perform fraud actions, however, personal incentives may be changed through the programs increasing awareness and education in general.

Opportunity means here the access to a situation in which fraud can take place under certain circumstances. For example, due to bottlenecks in the means of internal control, in operational environment, in the style of management or in corporate culture. Opportunity in this context is the easiest of these three factors to work with and can be quickly minimized. Truly efficient systems of internal control exclude such opportunity situation in general.

Personal incentive stands for the readiness to perform fraud. Character integrity and moral values are usually seriously damaged, so that a person is able to rationalize his/her decision to get involved in fraud. In some cases truly serious reasons can stand behind such personal incentive (several children in the family, the need to pay for medical treatment of a family member etc.).

Risks assessment for education institutions is to be carried out in several stages:

Determining the goals; identification of risks; analysis of a risk level. At this, the central task of internal control is to identify the risks which hinder the achievement of organization's goals and make them reach that level at which the organization is able to manage and control these risks. Regulation of major organization's goals in this context remains an important precondition.

The most complicated element in the process of risks assessment for educational institutions is the process of their identification. One can construct a dependency between the objects of internal control system in education institutions and the risks related to their activity (Table 2).

All types of risks, to some extent, influence upon the general efficiency of university activities and accordingly, upon the financial sustainability of the education institution. Identification and monitoring of this system of risks for education institutions should be introduced and used regularly by the internal control department.

An element which increase the efficiency of the development program (strategy) of the education institution is its risk-oriented approach. The most serious risk for the performance of any organization, both commercial and non-profit, is the risk of financial sustainability loss. For education institutions there are two approaches to

defining financial sustainability. And university has to choose which of these two is more applicable in its case, depending on management goals.

Table 2. **Identification of risks for education institutions basing on the procedures of internal control,** *authors' construction*

#	Objects of the internal control system	Key directions of negative trends, detected during the procedures of internal control	Type of risk
1	Educational process subjects: students by their specialties, academic staff, department units	Incompliance between the contents of the available educational programs and market demands. Insufficient number of students. Inefficient performance of the marketing department, advertisement department or Admissions Office. Inefficient personnel policy (including: low level of personnel qualifications, inaccessibility of academic exchange programs for tutors, inefficient policy on attracting new and part-time staff etc.).	- Enterprises reject cooperation with the university; the university does not have a practical part of its academic programs. - Insufficient level of adaptability and employment rate of the university graduates. - Insufficient financing of education activities. - Poor information support for education processes. - Underdeveloped material & technical basis. - Decreasing financial sustainability of the university.
2	Quality of education	Decreased quality of education. Worsening of image. Absence or low level of corporate culture development.	- Poor preparedness of enrolling students. - Low qualification of university graduates. - Absence of motivation among staff. - Decreasing financial sustainability of the university.
3	Methodological and research work	Underdeveloped workflow files system, with some missing parts in it concerning research and/or methodological work. Inefficient system of communications between academic staff and administration. Inefficient use of funds on academic staff motivation for research and methodological work. Low level or absence of corporate culture at the university.	- Insufficient information support of research processes. - Incompliance between academic and methodological contents of programs on one hand and current market demands to education on the other. - Not sufficient number of hired professionals. - Non-rational spending. - Decreasing financial sustainability of the university.
4	Activities related to social and moral upbringing	Using inefficient methods in social and moral upbringing of students. Low activity and little interest among students in everyday life of the university.	- Poor preparedness of enrolling students. - Low quality of graduates' preparedness. - Enterprises refuse to cooperate with the university. - Decreasing financial sustainability of the university.
5	Activities by structural units	Inefficient use of funds on stimulation of administration staff. Absence or low level of corporate culture at the university.	- Decreasing total efficiency of the university financial sustainability loss.
6	Social security	Low level of salaries, poor (or absent) fringe benefits. Poorly financed (or ignored at all) healthcare system for employees. Legislation violations in part of working with orphans and disabled people.	- Insufficient quantity of hired professionals. - Inefficient use of budget funds. - The risk of population loss. - Decreasing financial sustainability of the university.

The first approach is similar to defining the financial sustainability for commercial enterprises, and this is why it can be applied to non-public education institutions which are operating rather autonomously. The object of financial sustainability assessment in this case is education or any other activity of university. The key goal of economic sustainability analysis is to increase competitiveness. Activities of the university at this are often determined and regulated by external customers. For example, the state, business enterprises or private persons. This is why in this analysis and its conclusions regarding the sustainability assessment the most important aspect would be to detect the competitive edges through studying the demand for particular education services in the society by regions and/or strategic industries. Therefore, subjects in this analysis of economic sustainability are universities and their branches, and also separate study programs in some cases.

Proceeding from the analysis goals, we can specify the tasks of the university economic sustainability analysis:

- determining the market demand for education and other related services provided by the university;
- comparing the general indicators of university activities with competitors;
- defining positive and negative factors influencing university activities;
- finding the ways of neutralizing the negative factors through the system of financial, material and labour resources;
- developing a plan and a program on university economic sustainability promotion.

It is important to understand that university's economic sustainability is directly dependent from the volumes of current liabilities and the ability of the university to be liable for these obligations, and also from the terms of these obligations. The other important point here is the promptness of reaction of the university to market changes and the ability to introduce newer technologies, both in promotion and marketing, and also in teaching processes. In this context university as any other market subject, taking into account the current speed of innovative technologies development, has to be able to adjust itself to changing demand of the environment.

Same is related to the development of distance technologies, for example, and also professional development and training for personnel, improving the material and technical basis of education institutions. As any other enterprise, realizing investments, university has to pay special attention to the immobilization of financial resources. In this situation immobilization is a two-side process. On the one hand, without introducing news assets into the material-technical system it would be impossible to develop new directions of activities. On the other hand, significant investments would seriously undermine the financial sustainability of the enterprise (university in our case). Increasing the competitiveness of the university and improving its financial sustainability are the processes going completely different directions. Therefore, it is very important to find the balance between the necessary volume of financial resources and the required level of economic sustainability. This balance would help establishing and supporting at the needed level the system of internal control at the university by means of analytical tools, used on a regular basis.

The second approach to the university financial sustainability evaluation is based on the following positions:

- Any university is founded for a particular share of population. As a rule, universities have a certain indicator for the upper limit of its population.

- For the university to function certain financial resources would be needed. The volume of these financial resources depends, first of all, on the population, that is its students (as customers, to some extent).

- There is a direct dependence between the university total expenditures and the quantity of people studying in it.

This approach helps determining the studying population of the university, commercial or public, and accordingly − the university demand for financing. Naturally, increased financing approaching the level of the grounded demand leads to better financial sustainability of the university. And on the opposite, decreased financing leads to poorer financial sustainability and worse financial condition in general.

This approach is based on the concept of breakeven point and the related to it calculations regarding the real necessity in financing, including financing from public funds. It also includes calculations on the upper limit of total population in the university and population of the students sponsored by the state.

Therefore, education activities of the university can be assessed and forecasted both on the budget and on the commercial basis, calculating the needed funds for the university's operating costs, for further development and creation of reserves, for social payments etc. This approach has several important tasks to be solved. One of the most important among them is the order of the university permanent costs distribution between its commercial and budget activities.

Any analysis, including the analysis of economic efficiency has to be carried out on the basis of permanent monitoring of university activities. However, for new big projects such analysis can be one-time.

University is a complex hub of education, financial and business processes. Each university has its unique, specific features displayed through a range of the offered education programs and forms of studies. Since each university is unique, unique also should be the methodology of the financial sustainability analysis, at the same time the major directions of this analysis, outlined earlier, would be the same for any university.

Strengthening the financial sustainability of the university would become possible due to the realization of the risk-oriented approach. At this, the key positions of this approach should be included into the functionality of the personnel of the internal control department. The risk-oriented approach within university activities covers the following issues:

- development of the methodology for risks identification taking into the account the currently applied standards at the university; whenever necessary, new standards should be developed additionally or the existing standard should be adjusted;

- creating a comparative database of the analyzed indicators of the universities for benchmarking purposes;

- availability of qualified personnel in the field of risk management in education (or profound training for the available personnel to be later involved in this field of work).

Summarizing all the approached to risks assessment by the internal control system at the universities we can come up with the following **conclusions**:

- Control is considered here in its three key aspects: control as activity or process: control as an element of function in management; control as a component of the process of risks analysis.

- According to the COSO model, the system of internal control for education institutions can be divided into the following constituents: risks assessment; information environment; control environment; means of control; monitoring of control means.

- To achieve the strategic goals in education institution's activity the system of internal control is to be based on the risk-oriented approach.

- For the internal control system to be able to identify the risks it is necessary to orient the process of identification on the objects of the internal control system.

- The key role within the system of education institution risks belongs to the assessment of the risk of losing financial/economic sustainability. This assessment is possible by means of two approaches to it. The most reasonable is the approach based on finding the breakeven point and calculating the demand for financing, including financing from budget funds, and also finding the upper limit of general university population, including the population studying being covered by budget funds.

- Strengthening the financial sustainability would be possible by the following procedures: developing the methodology for risks identification using the in force standards and regulations; accumulating the database for comparison and assessment of economic indicators; increasing the qualifications of risk managers.

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