

## Budgeting-Based Organization of Internal Control

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### ABSTRACT

The article suggests methodical approaches to the budgeting-based organization of internal control, determines the tasks and subtasks of control that consist in the construction of an efficient system for the making, implementation, control, and analysis of managerial decisions. The organization of responsibility centers by means of implementing budgeting is suggested with a view to ensuring the stable work of independent educational institutions under the conditions of their partial independence. The goal of the development and implementation of a budgeting system is to create an instrument for the efficient organization of the activity management of an institution and its structural units by planning, controlling incomes and expenses, and analyzing economic and financial indicators.

### KEYWORDS

Internal control, budgeting, control, analysis of managerial decisions, management functions

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## Introduction

In a market economy, the role of control as a management function becomes significantly more important (Bogdanov et al., 1989; Bodiako, 2011a; Bodiako, 2011b), since a competitive environment favors those, who are the more economical, and can produce goods or provide services at a lower cost (Dementyev, 2009; Glazyev 2010; Zelenov, 2010). This can only be achieved by implementing a streamlined system of internal financial control theory such as M. Melnik (2012), M. Mishin (2003), T. Rogulenko (2012). The participation of Russian enterprises in the international economy also necessitates their implementation of internal financial control (Ponomareva, 2013; Rogulenko & Ponomareva, 2011).

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Control over the economic activity of organizations is a complex system that includes a number of interconnected elements, which constitute an integral unity with the economic activity. All processes of control, both internal and external, are integral parts of the internal and external financial processes, i.e. they are managed as systematic formations (Sokolov, 2000; Bogoviz, 2013a). The analysis of control system problems, presented by various authors, does not provide insight into what the system and the systemic method of research are. The methodologically accurate interpretation of these terms is extremely important both for the management theory, and for the formation of applied models of managing real economic processes in a specific space and time.

A systemic perception of objects and processes of the surrounding world is phenomenological, which is caused by a simplified perception of things (objects, phenomena, situations, etc.), rather than an accurate one (Lopatin, 2008).

### ***Aim of the Study***

The aim is to develop a budgeting system, creating a tool for effective management of the organization and its departments by way of planning, monitoring revenues and expenditures, analysis, economic indicators.

### ***Research questions***

The overarching research question of this study was as follows:

How is the organizational budget on the basis of internal control?

### ***Method***

The methodical basis of the research included the general scientific research principles that assume a comprehensive and systems approach to studying economic regularities and phenomena. Scientific theses, conclusions, and recommendation were based on such scientific techniques and methods as induction, deduction, analysis, synthesis, systems approach, determinant dependence of research objects, comparative evaluation, SWOT analysis, etc.

The methodological approaches to organizing an efficient internal control system are part of the corporate management theory (Eickhof & Kreikenbaum, 1998). The efficiency of control systems is based on the following principles:

- maximum financial independence for the educational activity of an educational institution's individual structures;
- personal responsibility of managers of different levels for making managerial decisions;
- evaluation of each member's contribution to the final result of the educational institution's activity;
- just remuneration of the academic and other personnel, based on the actual results of the educational institution's activity.

The analysis and modelling, based on mathematical and logical schemas, was performed on control, the main problem whereof is the assurance of a single influence on controlled objects, and the formation of reliable feedback.

The studied area of scientific and practical interests lies within the framework of the active systems theories that are incorporated into the theories of management and decision-making.

The scientific studies are based on the theory of active systems, hierarchal games, and systems compromise. The authors study the formation of managerial decisions, in which the initial constituent falls under the control system. In addition, the authors believe that evaluations of managerial decisions after their implementation should be based on the final result. The paper considers production and managerial control over business processes of an integrated business-structure, based on budgeting as an active element that is capable of participating in the correction of planned decisions in business processes, and initiating the correction of decisions in conjugate business processes. This approach to management organization significantly extends the potential for intensifying integration processes within business-structures (Pine & Gilmore, 2005).

The objective of control at organizations is the construction of an efficient system for the making, implementation, control, and analysis of managerial decisions, which is accomplished by a set of constituent subtasks:

- optimization of the institution's organization structure management;
- organization of an efficient accounting system for operations and results;
- implementation of systems for planning, controlling, and analyzing activity;
- motivating personnel to increase the institution's operating efficiency;
- automation of the institution's accounting and management systems.

The methodological basis of the study consisted of scientific theories of static and dynamic balance, basic concepts of development of control and management paradigms, theoretical concepts of control functions and structuring of its functional areas. The place and role of the accounting and control information in managing the flow of funds were studied in terms of the companies' flow of funds concepts, developed in the middle of the 1950s in the USA by economists such as J. Brueckner (2002), N. Eickhof & D. Kreikenbaum (1998), S. Ghoshal & C. Bartlett (2002), R. Kaplan & D. Norton (2001), G. Kasperk (1997), G. Myrdal (1957), N. Oskorbin (1989). The concepts were elaborated in the recent decades by Russian economists: A. Bogoviz (2013b); J. Brueckner (2002); N. Eickhof & D. Kreikenbaum (1998), S. Ghoshal & C. Bartlett (2000), R. Kaplan & D. Norton (2001), G. Kasperk (1997), G. Myrdal (1957), B. Pine & J. Gilmore (2005).

Russian scholar A. Bogdanov (1989) made a substantial contribution to the development of the methodology of systems knowledge and scientific transformation of the surrounding world. In 1911-1925, he published three volumes of his book titled "Tektology: Universal Organization Science" (Bogdanov, 1989). These books elaborate the idea that all existing objects and processes have a certain extent and level of organization. All phenomena are considered continuous processes of organization and disorganization. A. Bogdanov (1989) made an important discovery that the greater the difference between the properties of a unity and the simple sum of its parts' properties, the higher the organization level, i.e. the properties of a system are not identical to the properties of its elements. This theoretical postulate is called emergence. Its existence in the plane of practical processes and phenomena is generally accepted and used when developing concepts for improving control systems in the field of finance, prices, credit, accounting, audit, and economic analysis.

At present, two concepts of control are most popular at the international level. According to one of them, the accounting and control theory is defined as a set of broadly interpreted principles that constitute a general system of etalons for evaluating various economic situations (Bogoviz, 2013b). Another concept claims that “any theory has to have three elements: 1) symbolic presentation of real world phenomena by means of coordination; 2) processing and combination of these symbols in accordance with elaborated rules; 3) reverse transformation of symbolic constructs into real world phenomena”.

Despite the contradiction between the value bases of these concepts, they still facilitate further development of the control theory, since they meet the requirements of the competitive economy. The authors assume that these concepts had a positive impact on the standardization of the accounting and control system.

The implementation of market economy elements in Russia reintroduced the concepts and categories of “value”, “control”, “currency operations”, “circulation of bills”, “transfer pricing”, etc. The necessity and logic of applying a comprehensive approach to reforming the control system was caused both by methodical reasons, and by applied aspects of accounting and control. With the acquisition of economic independence, more enterprises joined the international business (Oskorbin, 1989).

In 1973, an international financial reporting system began forming, according to which, accounting has to reflect the economic activities of enterprises with minimal deviations from the actual state of affairs. The form of reflection had to be easily understood by any user. Since that time, national accounting systems set a course for integration. Russia gradually joined this course. In 1989, the UN Center on Transnational Corporations and the USSR Chamber of Commerce and Industry held a seminar in Moscow on accounting problems at joint enterprises. A working group was formed with a view to integrating the accounting and control system of the USSR into the international accounting practice.

In 1998, the Russian government adopted the Program on the Reformation of Accounting and Control in Accordance with International Financial Reporting Standards. The goal of the program was to bring the Russian accounting system in compliance with the demands of the market economy and the international financial reporting standards.

According to Ya. Sokolov (2000), since the beginning of the XXI century, the harmonization of national accounting systems is being substituted by convergence, which is interpreted as a cooperative development of international and national standards by countries that harmonized their accounting systems, based on universal principles. This process results in the construction of a more differentiated and rigid system of international accounting, and the reduction of the variability of its permissible accounting methods (Sokolov, 2000).

The concept of mid-term development of accounting and reporting in the Russian Federation (hereinafter referred to as Concept) is aimed at improving the quality of information that is formed by accounting and reporting, and at ensuring access thereto for interested users.

While acknowledging the merits of the abovementioned scholars essential transformations occurred in the development of economic relations over the last



few decades, which were not conceptually evaluated in theoretical and practical accounting, despite their obvious and significant impact on the financial accounting system.

To conclude, there are two typical regularities. On the one hand, Russian financial accounting maintains its committal to foreign scientific concepts to the detriment of the Russian economic specificity. On the other hand, an increasing number of scientific papers begin addressing the necessity of restoring the national school of accounting.

In the search for solutions to the problems of harmonization and standardization of national control systems, conflicts are inevitable between the opinions of theorists from Anglo-American, Western European, Soviet, and Russian schools. Hence, the evolution of theories continues, as does the search for adequate methods of standardization of accounting items. The goal of researchers is to substantiate the need for further development of the national school of

internal control in respect to the Russian economy and society, based on the theoretical heritage of classic scholars in the field of accounting.

### **Data, Analysis, and Results**

Control over the financial and economic activities of organizations should be aimed at integrating the information-analytic function of the financial (budget) accounting system and the information-methodic function of the financial and economic activity planning system.

The peculiarities of organizing internal control are determined by the specificity of an organization's activity.

The authors studied the organization of internal control by the example of an independent educational institution. This form differs significantly from the classic system of a state-funded educational institution that is funded either by estimate, or in accordance with the estimated amount of budget expenses per student and per 1 m<sup>2</sup> of floor space of the building where the educational process takes place. Paid services begin playing an important role for independent educational institution, both in the funding of the educational process, and in the funding of their material resources. The personnel recordkeeping system, including the search for lecturers and methodologists, compilation of staffing tables, etc. should consider the possibility of additional funding, including targeted funding by charity organizations. Budgetary funding of independent institutions (grants for the performance of governmental or municipal tasks) is targeted; therefore, the accounting information system should allow keeping separate records of activities that are funded under a governmental order.

At independent educational institutions, control is a peculiar technology of managing various fields of the institution's financial and economic activities, which includes the determination of the activity's goals, the reflection of these goals in the system of efficient and balanced indicators, regular control (measurement) of actual indicator values, analysis and detection of reasons behind discrepancies between actual indicator values and planned ones, making rational decisions on the minimization of discrepancies. The main indicators include the level of "satisfaction" of educational service receivers, income of the independent educational institutions, and the increase of their material resources.

The research results showed that one of the important areas in improving the operation of independent educational institutions is the creation of responsibility centers. These centers are distinguished structural units within independent educational institutions with respective financial responsibilities and independence. It is expedient to distinguish a unit (classroom, gym, stadium, cafeteria, assembly hall, etc.) within the educational institution, and form, account, and control all the incomes and expenses of such a unit. Part of the income is at the disposal of this unit. In this case, the educational institution planning and financial department forms a sub-account for the structural unit; all incomes arrive at this sub-account, and all expenses are withdrawn from this sub-account. Responsibility centers allow uniting financial and administrative powers, solving the second problem of “responsibility and resources” of management, providing responsible executives with specific means and rights to their use, concentrating the motivation of the responsibility center’s manager on the attraction of additional income sources.

In order to ensure the stable work of independent educational institutions under the conditions of their partial financial independence, one should organize control over the institution’s flow of funds. At that, one should primarily control the educational institution’s main activity indicators: the number of students (on state-subsidized and commercial contract basis); income from the educational activity with division by sources; income gained under federal, regional, and municipal programs for development of education; income from provision of paid educational and consulting services; other budgetary and extra-budgetary income (grants, donations, etc.); expenses for the salaries of the academic and support personnel (including taxes); public utility charges and expenses for the maintenance and servicing of premises; expenses for capital constructions and acquisition of fixed assets, and other expenses.

The institution’s independence assumes discretion in the use of funds and bonus payments, i.e. a part of income is at the disposal of this unit and can be used in accordance with plans (budgets).

It is expedient to develop and control financial plans for such responsibility centers as main and additional education, paid educational services, paid sports and recreation services, organization of additional paid meals, etc. The financial plan should include an annex that contains the budget for the flow of funds, wherein the areas of expenses are divided into constant, variable, and tax payments, which will allow the independent educational institution to estimate the breakeven point.

The improvement of the methodological support of separate accounting facilitates the increase of internal control’s efficiency at an independent educational institution. The objective of separate accounting is both to reflect the performance results under the founder’s task and entrepreneurial activity in separate accounts, and to independently form accounting indicators and a system of document circulation.

Special attention should be paid to controlling the payment of taxes. The tax aspects of organizing separate accounting allows both forming income and expenses that relate to the special-purpose financing resources and entrepreneurial activity, and identifying, for management accounting purposes, the share of income gained from providing fully or partially paid services. In accordance with Subparagraph 14 Paragraph 1 Article 251 of the Tax Code of





the Russian Federation, subsidies of an independent educational institution relate to special-purpose financing resources that are not included when determining the tax basis. This clause also obliges taxpayers, who received special-purpose financing resources, to keep separate records of income (expenses) received (incurred) under special-purpose funding. In the absence of such accounting, said resources are considered taxable from the date of their receipt. The Tax Code of the Russian Federation does not provide specific regulations on the conduction separate accounting; therefore, the taxpayer individually sets appropriate rules the accounting policy. A similar mechanism is applied to the property of independent educational institutions.

To provide services in the field of education, healthcare, culture, science, law, physical education, sports, and other services that are aimed at public benefit, natural persons and legal entities, including governmental bodies, can establish autonomous non-commercial organizations (ANO). The activity of such organizations is subject to special control, since it is not supported by methods and regulations of organizing accounting and control. The problem here is pricing, which leads to the problem of recognizing income, and, respectively, calculation of taxes. In the authors' opinion, to determine the prices for said services, organizations should develop methods that include:

- the determination of the basis for pricing (according to planned and actual expenses);
- the method of determining the amount of direct and overhead expenses;
- the mechanism for considering the level of inflation, depending on the duration of the provided service;
- peculiarities of pricing various types of services, considering the current taxation;
- the mechanism of considering market conditions;
- the existing legislative limits on the pricing of various goods and services;
- the mechanism for the determination of concessions, differentiation and modification of prices.

The pricing of an ANO's service is an individual estimation of the material, labor, and other costs, incurred during its provision. It includes the expenses for providing services, which are divided, in terms of their inclusion in the price for pricing purposes, into direct and overhead (indirect) expenses. Direct expenses are understood to be expenses that are directly related to the provision of services: salaries (with accruals) of executives, who execute this type of service, and material expenses, required for the execution of this type of service. Overhead (indirect) expenses are understood as expenses related to the management and organization of services (costs of maintaining administrative personnel, general engineering and business services, etc.); they include: salaries (with accruals) of the administrative and support personnel; costs of maintaining administrative and support personnel; public utility charges and communication service fees; minor and major repairs of equipment, buildings, and constructions; equipment; transportation expenses; business trips of administrative and support personnel; advanced training; entertainment expenses; advertisement expenses; other general business expenses. They also include taxes (on a specific type of activity) and planned accumulations (income).

The salaries of executives should be paid, proceeding from the working time and quality of their work. At that, one should use both the regulatory framework of salaries for state-funded institutions, and individual methods of determining the quality of the provided service, based on consumer feedback.

The estimation of overhead expenses should proceed from the overall expenses of an ANO for the use of 1 m<sup>2</sup> of usable or overall area, taking into account the usage period of the premises to provide the service. The amount of planned accumulations (income) can be estimated according to standards that are established by an appropriate administrative body of the ANO, taking into consideration the goals of the ANO establishment that are indicated in its articles of association. The amount of tax payments that are accounted for during the estimation of the price is determined by the current legislation, depending on the type of activity and accounting of the ANO. The main results of activities are presented by planned and actual indicators (volume and quality of provided services). These indicators should disclose the resources (personnel, financial, property, etc.) that were used for their achievement.

An explanatory note should indicate the measures for improving the efficiency of budgetary funds' use (increase in the ratio of contract-based purchases, distribution of budgetary appropriations, depending on the volume of provided services and their direct and final results, and measures for optimizing the network of budgetary funds' recipients).

With a view to analyzing the report on the budget execution, main administrators of budget funds should provide information on the change of the quarterly budget breakdown with references to legal grounds, the range (and reasons) of changes that were made to the allocated budgetary expenses during the reporting period. This information should also indicate the reasons for failing to execute the budget, broken down to groups and subgroups of budget income classification, functional classification of budget expenses, sources of funding the budget deficits.

The explanatory note should provide information on the execution of target programs, the use of targeted foreign credits, their purpose, and the accomplishment of set tasks with a disclosure of reasons for failing to accomplish them. It should also provide the results of analysis regarding the execution of budget law articles with the indication of reasons behind underfunding and the formation of remaining unused funds at the end of the reporting period.

In their budget reports, organizations disclose information on the flow of non-financial assets (divided by the types of fixed assets, non-material assets, non-produced assets, and inventory). The reports also characterize the technical state of the software-computer complexes that allow automating budgetary accounting and the efficiency of their use, the provision of budgetary institutions and their structural units with fixed assets (with the indication of the correspondence between the amount, content, and technical level of assets, and the actual need for them). The reports should also disclose information on the measures for improving the state and security of fixed assets, timely arrival of inventory, etc. They include information on the state of settlement for accounts receivable and payable as of January 1 of the reporting year, and as of the reporting date, with an indication of reasons for the formation of debt (including pass-due debts). The reports of public entities should disclose information on the





legal groups of financial investments, on the governmental (municipal) debt broken down to debt instruments.

All explanatory notes to reports of government institutions' subjects should provide information on stocktaking, lack and excess, measures taken by governmental financial control bodies, based on the results of control activities, and cover other issues, which were not reflected in the previous paragraphs of the budget report, but which affected the activity of the state-funded institutions as a public entity.

As previously noted, another important aspect in the budget accounting and reporting system is the application of the consolidation principle – budget reporting is consolidated, i.e. the reports of a state-funded institution are also formed with a view to consolidating the budget reporting of public entities.

The necessity of establishing financial reporting does not solve the issue of organizing efficient management accounting. The reports of public entities should provide analytical information for economic decisions of executive bodies and local authorities. With a view to forming such information, the International Monetary Fund developed a system of financial statistics for tax and budget analysis, which was fixed in the Government Finance Statistics Manual. Many elements of the introduced guidelines on budget accounting and reporting were borrowed from this manual.

The methodology of internal control is already asserted in connection with budgeting. In the authors' opinion, it can be used at independent educational institutions. The managers of certain large independent educational institutions are developing a budgeting system. The research showed that this practice yielded positive results (increase in the number of students, acceptance of additional governmental and municipal tasks, expansion of the area of entrepreneurial activities, and stabilization of the financial results of such institutions' educational activity). Therefore, the authors recommend – as an annex to the independent educational institutions' financial and economic activity plan – developing a budget for the flow of funds by income from grants and commercial activities, and by items of expenses (constant, situational, tax payments). Based on the indicators of such a budget, the independent educational institution's accounting department will be able to conduct a high-quality audit and control over the flow of funds, and to form a reliable information base for future financial planning (estimation of the breakeven point).

Due to the extension of rights and possibilities to make managerial decisions, the budgeting possibilities at independent institutions increased.

The establishment of a budgeting system can occur both upon the initiative of the Governing Board of the educational institution, and at the order of the management (Ragulina & Zavalko, 2013). The project implementation often involves the participation of united teams of managers from structural units of the institutions and representatives of the parents' community or guardians. The prerequisite for the implementation of the budgeting project is a precise plan that includes the development of the institution's financial structure, approval of goals, tasks, and principles of the budgetary management system, appointment of managers of financial responsibility centers (FRC), holding of training seminars on basic budgetary management, conclusion and filling out of

budget forms that contain both planned and actual indicators by financial responsibility centers' managers.

The tasks of the budgeting system are presented in Figure 1.

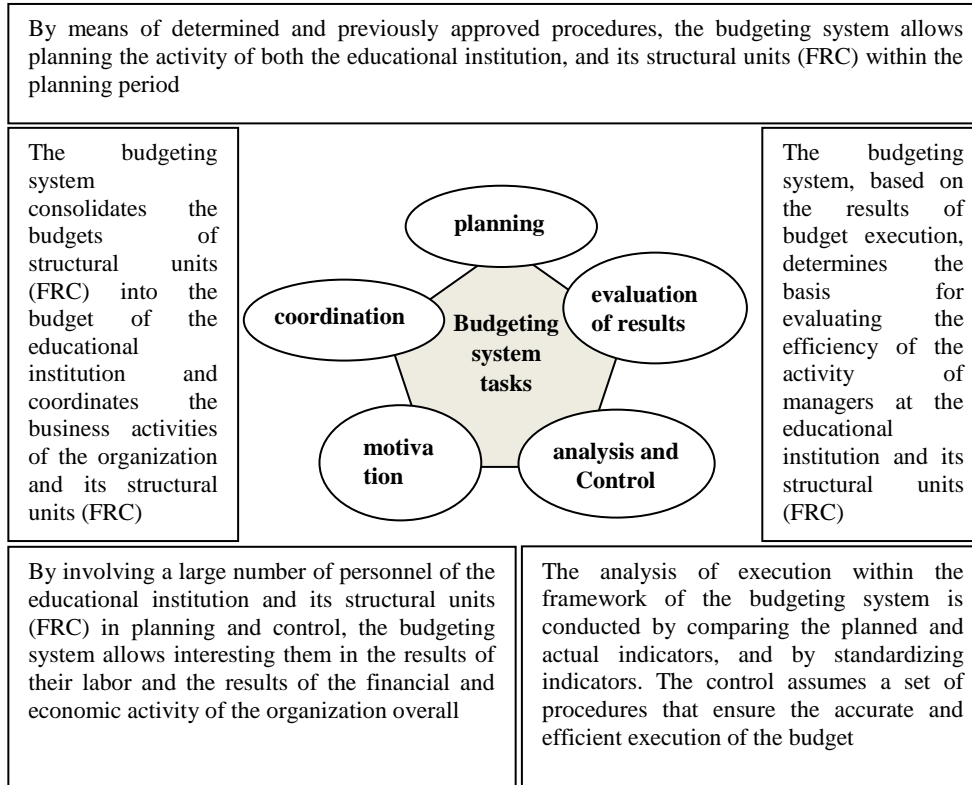


Figure 1. Budgeting system

## Discussion and Conclusion

The project's working group should be guided by general principles of constructing budgeting systems, while assuming the possibility of sharing the project in the system of municipal education. However, autonomy implies both greater independence and new possibilities, and greater responsibility. Educational institutions have to establish a Supervisory Board with a view to controlling financial activities.

In order to optimize financial risks when forming a budgeting project, one can use the most common indicators: range of variability, dispersion, and mean square deviation. The simplest statistical indicator that characterizes risk is the range of variability (the difference between the largest and smallest elements of the sample).

$$R = X_{\max} - X_{\min}, \quad (1)$$

The range of variability includes the extreme values of the population; therefore, its application is limited to the use of homogenous populations. A large range of variability will not provide relevant information due to the presence of outliers that are difficult to identify in the processed population. It is even difficult to record how exactly the data are distributed between the

minimum and maximum elements. Dispersion and the mean square deviation allow evaluating the level of data fluctuations around the mean value. Dispersion is the approximation of the arithmetic mean that is calculated, based on the squared difference between the elements of the sample and the sample mean:

$$\tilde{\sigma}_x^2 = \frac{\sum_{i=1}^n (x_i - \bar{x})^2 p_i}{n} \quad (2)$$

where  $x_i$  is the element  $i$  of the sample;

$p_i$  is the probability that the element  $i$  will acquire the  $x_i$  value.

The mean square deviation is equal to the root square of the dispersion, and shows how much, on average, specific variants of the attribute deviate from the mean value:

$$\sigma_{x_i} = \sqrt{\sum_{i=1}^n (x_i - \bar{x}_i)} \quad (3)$$

Dispersion and the mean square deviation allow determining how many elements of the sample are greater than the mean, and how many are smaller. Dispersion is a square unit of measurement – “square” percentage, “square” dollar, “square” ruble, etc. Therefore, the natural estimator of dispersion is the mean square deviation that is expressed in ordinary units of measurement – percentage, dollars, rubles, etc. At that, one should account for the characteristics of data variability:

The greater the data variability, the greater their range, dispersion, and mean square deviation, and the higher the financial risk.

The more concentrated and homogenous the data, the smaller their range, dispersion, and mean square deviation, and, hence, the lower the financial risk.

If all elements of the sample are equal (i.e. there is no variability), the range, dispersion, mean square deviation, and financial risk are zero.

No estimate of data variability (range, dispersion, mean square deviation) can be negative.

The implementation of a budgeting structure can yield the following results:

- motivate planning and analysis of execution for all indicators of the financial and economic activity plan;
- provide criteria of financial and economic activity’s efficiency;
- facilitate coordination and communication within the organization.

If the educational institution makes a transition to a new legal status – an autonomous organization, it acquires significant independence in determining the areas of budget expenses. The establishment of a budgeting system can satisfy the needs of the educational institution for an efficient management instrument under independent decision-making in the financial and economic field. It is possible to say that the managers of an autonomous organization’s structural units are more confident due to the implemented budgeting system.

## Implications and Recommendations

The objective of control at organizations is the construction of an efficient system for the making, implementation, control, and analysis of managerial decisions, which is accomplished by a set of constituent subtasks:

- optimization of the institution's organization structure management;
- organization of an efficient accounting system for operations and results;
- implementation of systems for planning, controlling, and analyzing activity;
- motivating personnel to increase the institution's operating efficiency;
- automation of the institution's accounting and management systems.

An important aspect in the system of budget accounting and reporting system is the application of the consolidation principle – budget reporting is consolidated, i.e. the reports of a state-funded institution are also formed with a view to consolidating the budget reporting of public entities.

The reports of public entities should provide analytical information for economic decisions of executive bodies and local authorities. With a view to forming such information, the International Monetary Fund developed a system of financial statistics for tax and budget analysis, which was fixed in the Government Finance Statistics Manual. Many elements of the introduced guidelines on budget accounting and reporting were borrowed from this manual.

The methodology of internal control is already asserted in connection with budgeting. In the authors' opinion, it can be used at independent educational institutions.

The suggested budgeting model should accomplish the following tasks: plan the activity of both the institution and its structural units within the planning period; consolidate the budgets of structural units into the budget of the educational institution and coordinates the business activities of the organization and its structural units; motivate personnel; determine the basis for evaluating the efficiency of the activity of managers at the educational institution and its structural units, based on the analysis of budget execution.

The budgeting system facilitates the obtainment of all necessary information on the plans of the organization's financial and economic activity and the reports on the results, and allows organizing an efficient internal control system. The budgeting system, when implemented at one educational institution, may help share the experience, which will facilitate the modernization of the system of municipal education as a factor of innovative management of the entire Russian educational system.

### Disclosure statement

No potential conflict of interest was reported by the authors.

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## References

- Bodiako, A. (2011a). *The methods of accounting and internal control of salaries calculation*. Moscow: State University of Management Federal State Budgetary Educational Institution of Higher Professional Education, 263 p.
- Bodiako, A. (2011b). *The methods of accounting and internal control of salaries calculation*. Moscow: "Marketing" Information-Implementation Center, 135 p.
- Bogdanov, A. (1989). *Tektology: Universal Organization Science*. Moscow: Institute of Economy of the USSR Academy of Sciences, 263 p.
- Bogoviz, A. (2013a). Modeling the Labor Process One of the Tasks of Strengthening of Positive Trends in the Economic Growth of the Industrial Enterprises of the Region. *World Applied Sciences Journal*, 8(25), 1222-1225.
- Bogoviz, A. (2013b). Regional Aspects of Labour Management. *Middle East Journal of Scientific Research*, 8(16), 1105-1108.
- Brueckner, J. (2002). Airport Congestion When Carriers Have market Power. *The American Economic Review*, 92(5), 12-17.
- Demytyev, V. (2009). *Long waves of economic development and financial bubbles*. Moscow: Central Economic Mathematical Institute of the Russian Academy of Sciences.
- Eickhof, N., & Kreikenbaum, D. (1998). Die Liberalisierung der Märkte für leitungsgebundene Energien. *Wirtschaft und Wettbewerb*, 48(8), 4-10.
- Ghoshal, S., & Bartlett, C. (2000). The Individualized Corporation: A Fundamentally New approach to Management. *Random House Business Book*, 4, 56-58.
- Glazyev, S. (2010). *The strategy of Russia's advanced development under the conditions of a global crisis*. Moscow: Economy, 353 p.
- Kaplan, R. & Norton, D. (2001). *The Strategy-Focused Organization*. Harvard: Harvard Business School Press.
- Kasperk, G. (1997). *Deregulierung und Privatisierung des Elektrizitätssektors in Entwicklungsländern*. Baden-Baden: Nomos Verlag, 426 p.
- Lopatin, V. (2008). The system of managing business-processes. *Credit Institution Management analytical journal*, 6, 23-28.
- Melnik, M. (2012). Organizing an internal audit and control system at large organizations. *Audit Journal*, 2, 118-134.
- Melnik, M. (2013). Innovations in reporting and control of modern commercial organizations. *Economy and management: problems, solutions*, 5(17), 2-8.
- Mishin, V. (2003). *Study of management systems*. Moscow: UNITY-DANA, 527 p.
- Myrdal, G. (1957). *Economic Theory and Underdeveloped Regions*. London: Rutledge, 253 p.
- Oskorbin, N. (1989). Volume of Abstracts International School. *Seminar Optimization Methods and Their Applications. Some Aspects of Optimization of Decision Support System*. Baikal: Znanie, 66-67.
- Pine, B. & Gilmore, J. (2005). *The Experience Economy: Work Is Theater & Every Business a Stage*. UNCTAD, *World Investment Report: Transnational Corporations and the Internationalization of RD*. Geneva: United Nations Conference on Trade and Development, 255 p.

- Ponomareva, S. (2013). *Reporting and control system of information support for intellectual business-services management*. Moscow: KNORUS, 325 p.
- Ragulina, J. & Zavalko N. (2013). Integration Processes in the Chain: Science, Higher Vocational Education and Production, as a Factor in the Increasing the Competitiveness of the Educational Institution. *Middle East Journal of Scientific Research. Socio-Economic Sciences and Humanities*, 13, 161-166.
- Rogulenko, T. & Ponomareva S. (2011). *Improving the internal control and audit system under the transition to international financial reporting standards*. Moscow: Economic Newspaper publishing house, 253 p.
- Rogulenko, T. (2012). Internal audit and its place in internal control. *RISC: Resources, Information, Supplies, Competition*, 1, 568-576.
- Sokolov, Ya. (2000). *Basic accounting theory*. Moscow: Finances and statistics, 253 p.
- Zelenov, V. (2010). Organization of internal audit and its role in increasing the efficiency of the internal control system. *Fundamental and applied researches of the cooperative sector of the economy*, 3, 77-85.