

# NATIONAL ECONOMY'S MARKET MECHANISMS OF ACCOUNTING, ANALYSIS AND AUDIT

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## IMPROVEMENT OF INTERNAL CONTROL OF FORMATION AND EXECUTION OF ESTIMATES INDICATORS IN PRIMARY EDUCATION INSTITUTIONS

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budget, management accounting, internal control, target use, performance of budget indicators

The article deals with the concepts, content and components of the budget institution's accounting and control system. The accounting and analytical approaches to the internal control of the formation and implementation of budget indicators in the institutions of professional before higher education have been revealed. The concept, purpose and goals of management accounting have been defined and the model of introduction of elements of management accounting has been provided for providing the internal accounting data of the system of formation of planned estimates of revenues and expenditures. The content and substantiated functions of each of the elements of budget planning have been revealed, the types of indicators that reflect the activities of a budgetary institution have been defined and the basis for the budget planning and their influence on the formation of the budget of an individual budgetary institution have been revealed. The proposed model reflects the consistent transition of information flow from accounting, control and analysis to management decision making to optimize the process of formation and implementation of estimates in professional higher education institutions, taking into account the influence of internal and external factors. It has been substantiated that the establishment of responsibility centres in the institution provides timely and complete information on the current state of performance of the budget indicators. This information is further processed in the process of internal control and analysis of the performance of the estimates. The main tasks have been determined, the solution of which contributes to the achievement of the goals of internal financial control of the targeted use of budgetary funds in institutions of higher education. The internal control system has been designed to verify the appropriateness and reliability of the information flow. The purpose of internal control is to evaluate the effectiveness of the institution and the purposeful use of its budget. Specific methodological methods of management accounting and internal control within the framework of the model are determined by the tasks of ensuring the discipline of spending budget funds, improving the efficiency of use of public resources. It has been proposed to establish responsibility centres in the institution using the existing units to improve the informative content of the estimates of estimated assignments.

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## УДОСКОНАЛЕННЯ ВНУТРІШНЬОГО КОНТРОЛЮ ФОРМУВАННЯ ТА ВИКОНАННЯ ПОКАЗНИКІВ КОШТОРИСУ В ЗАКЛАДАХ ПЕРЕДВИЩОЇ ОСВІТИ

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### Ключові слова:

кошторис, управлінський облік, внутрішній контроль, цільове використання, виконання показників кошторису.

Розглянуто поняття, зміст та складові кошторису бюджетної установи у системі обліку та контролю. Розкрито обліково-аналітичні підходи до внутрішнього контролю формування та виконання показників кошторису в закладах фахової передвищої освіти. Визначено поняття, мету та цілі управлінського обліку та запропоновано модель упровадження елементів управлінського обліку для забезпечення даними внутрішнього обліку системи формування планових кошторисних показників надходжень та видатків. Розкрито зміст та обґрунтовано функції кожного з елементів

бюджетного планування, визначено види показників, які відображають діяльність бюджетної установи і покладені в основу кошторисного планування, та їх вплив на формування кошторису окремої бюджетної установи. Запропонована модель відображає послідовний перехід інформаційного потоку від обліку, контролю та аналізу до прийняття управлінського рішення щодо оптимізації процесу формування та виконання показників кошторису в закладах фахової передвищої освіти з урахуванням впливу внутрішніх та зовнішніх факторів. Обґрунтовано, що формування центрів відповідальності в установі надає своєчасну та повну інформацію щодо поточного стану виконання показників кошторису. Ця інформація в подальшому обробляється у процесі внутрішнього контролю та аналізу виконання показників кошторису. Визначено основні завдання, вирішення яких сприяє досягненню цілей внутрішнього фінансового контролю цільового використання бюджетних коштів закладами передвищої освіти. Система внутрішнього контролю призначена для перевірки доречності та достовірності інформаційного потоку. Призначення внутрішнього контролю полягає в оцінці ефективності роботи установи та цільового використання нею бюджетних коштів. Конкретні методичні прийоми управлінського обліку та внутрішнього контролю в межах побудованої моделі визначаються завданнями забезпечення дисципліни витрачання бюджетних коштів, підвищення ефективності використання державних ресурсів. Для удосконалення інформаційної змістовності показників кошторисних призначень запропоновано створити центри відповідальності в установі із існуючих на підприємстві підрозділів.

### Statement of the problem

Currently, there are a number of issues in the market economy in Ukraine related to the organization of accounting and control in the public sector of Ukraine's economy. Particularly acute is the problem in the formulation and implementation of the budget of budgetary institutions, including state institutions of professional higher education. It is of great importance to control the correctness of drawing up the estimates of income and expenses, because it is a prerequisite for ensuring the discipline of spending budget funds, improving the efficiency of use of resources of institutions of professional higher education. Checking compliance with the law when drawing up and executing the budget is in essence one of the most important control measures. The performance of government procurement indicators are statistics on the actual volume of services provided, the actual number of the contingent receiving educational services in a professional higher education institution, and the state of certain material values.

### Analysis of recent studies and publications

Significant contribution to the development of scientific-theoretical, organizational and methodological provisions of internal financial control of revenues and expenditures of budgetary institutions and the introduction of management accounting principles in budgetary institutions have been made by domestic scientists, in particular S.V. Svirka [6,7], P.Y. Atamas [1], V. Fedosov [4], V.V. Biba [2], E.Y. Shara [10], T.V. Cherkashina [9] and others, who investigated the functions, tasks and elements of management accounting in the system of internal financial control of revenues and expenditures of budgetary institutions as a whole. In particular, V.V. Beba defines management accounting as a set of methods and procedures that provide the preparation and provision of information for planning, control and decision-making at various levels of management of the institution. Synonyms of management

accounting are internal, internal, production, analytical economic accounting [2]. T.V. Cherkashina believes that the introduction of management accounting will strengthen the control over the efficiency of use of budget funds [9].

### Objectives of the article

The purpose of the work is to improve the organizational and methodological provisions of the process of internal control of the budget planning and implementation of the budget of institutions of professional higher education.

### The main material of the research

Budgeting of the budgetary institution is the main planned financial document, which determines during the budgetary period the powers to receive revenues and allocate budgetary appropriations for making budgetary commitments and making payments to fulfil the functions of the budgetary institution and achieve the results determined in accordance with budgetary allocations [3].

According to the Budget Code of Ukraine, budget revenues and budgetary institutions are divided into general fund revenues and special fund revenues. The allocation of the budget to general and special funds, their constituent parts are determined solely by the Budget Code of Ukraine and the Law on the State Budget of Ukraine.

The estimate has the following components:

- general fund, which contains the volume of revenues from the general fund of the budget and the distribution of expenditures by the full economic classification of budget expenditures for the execution by the budgetary institution of the main functions or the distribution of the granting of loans from the budget by the classification of lending to the budget;
- special fund, which contains the amount of revenues from the special fund of the budget for a specific purpose and their distribution according to the full economic classification of the budget expenditures for

implementation of the corresponding expenditures in accordance with the legislation, as well as for the implementation of measures related to the execution of the basic functions of the institution [3, 10].

The estimate of the institution of higher professional education is the main element of budget planning, which consists of three sections. The first section shows the total amount of expenditures and their objective and target distribution by cost items, the second is the main production (operational-network) indicators, and the third is the calculations and justification of individual costs by cost items. The cost of each article is determined on the basis of two main elements: operational network indicators and established norms and regulations for these institutions.

Operational and network indicators reflect the activities of the budgetary institution and form the basis of the estimates (estimates). They are both directive and calculated in nature.

The Ministry of Education and Science of Ukraine, which approves the licensed volume of admission of professional junior bachelors and determines the volume of state order, which determines the volume of appropriations of such institutions, has a direct influence on the formation of operational and network indicators of institutions of professional higher education. The estimates are specific to the current system of financing budgetary institutions and do not fully determine the entire scope of the institution. To date, specific additional indicators have been developed by the MES of Ukraine, such as: the regional coefficient, the amount of funding for studies attracted by business or grants, and the employment of graduates, which for higher education institutions is an indicator of further education at higher education institutions at the next level of higher education.

Operational and network indicators are divided into basic and derivatives. In the institutions of higher professional education, the main indicators of their activity are: the number of students by type of education: full-time, part-time.

In the institutions of professional higher education, the main operational and network indicators are the number of students, educational groups and pedagogical rates. The peculiarity of determining the number of pedagogical rates at the present stage is that the calculation is conducted on the total number of hours payable, based on the norm of annual load per teacher, which is 720 hours, and takes into account the possibility of forming an individual educational trajectory, training in production, etc. This, in turn, will affect the additional training load for teachers, according to the individual curricula of the educational providers, with an hourly payment above the training load [4].

A number of cost accounting sub-items, such as utility and energy costs, business trips, overhaul of buildings and structures, are determined using a single methodology for all institutions. Thus, expenditures for CECE 2240 "Payment for services (except utilities)", 2250 "Expenses for business trips", 2270 "Payment for utilities and energy" are planned at the level of expenditures of the previous year [4].

The most important in the estimated calculations is the determination of the amount of expenses under CECE 2111 "Salary". In most budgetary institutions, particularly in institutions of professional higher education, these costs are a major part of the cost, and their calculation is the most difficult and time-consuming part of budgeting. The payroll of employees of the institution of professional higher education includes the salaries of teachers in accordance with the tariff lists, the salaries of administrative staff, subject to wages, which is attributed to teaching staff, administrative and economic staff. The salary and the salary of the principal depend on the contingent of students. For each category of employees, a separate calculation has been made, which is displayed in the staff list. The tariff list lists all pedagogical staff of the institution, salary rates and salaries, which depend on the education and qualification category of pedagogical staff and the mandatory allowances and surcharges set by law. The total annual wage bill for this category of employees includes financial assistance for the health of pedagogical workers and monetary compensation for diligent work. The amount of expenditures under CECE 2120 "Payroll" is determined by multiplying the payroll fund by 22% (at the rate of a single social contribution). Expenditures on CECE 2230 "Food", 2210 "Items, materials, equipment and inventory", 2730 "Other payments to the population" are planned based on the number of students who have orphaned status.

Expenses for CECE 2720 "Scholarships" are calculated in accordance with the procedure for the appointment and payment of scholarships, approved by the Cabinet of Ministers Resolution No. 882 of 12.07.2004 "Issues of scholarship provision".

The effectiveness of the budget institution's budget implementation depends on the correctness of its preparation, and the efficiency of its activities, the rational use of budgetary funds. Control over the correctness of the budgeting of revenues and expenditures is a prerequisite for ensuring the discipline of spending budget funds, improving the efficiency of use of public resources. Checking compliance with the law when drawing up and executing an estimate is one of the most important controls. In particular, the deviation between the ratios of approved allocations, actual expenditures and cash expenditures may indicate that the necessary allocations have been unreasonably carried out, which is the basis for careful checking of calculations by certain economic classification codes [8].

Controlling targeted use of budgetary resources is to minimize and prevent violations in the use of public financial resources. Achieving the goals of internal financial control of the targeted use of budgetary funds in higher education institutions will provide for a number of tasks, the main of which are:

- observation of indicators of financial and economic activity of the college;
- timely detection of deviations of actual indicators from the envisaged plans and financing goals;
- identification of the reasons for these deviations, the factors that have the most significant impact on their formation, guilty of misuse of budget funds;

- evaluation of the effectiveness of the College's use of budget funds;
- development of proposals for the appropriate regulation of individual areas of use of budgetary funds to ensure compliance with the principle of their targeted and effective use [5].

Biba V.V. recommends adhering to the principles of rational organization of internal financial control of targeted use of budgetary funds [2], in this respect the introduction of management accounting in budgetary institutions, in particular in institutions of professional higher education, will help.

Svirko S.V. states that the organization of management accounting aims to ensure the effective functioning of the subsystem of management accounting, whose purpose (according to the specifics of the activity of these entities) is to form and transfer information to management staff of the internal field of management of budgetary institutions for to substantiate the selection, preparation and support of management decisions in the field of control, planning, forecasting of economic efficiency of the activities business entities, in terms of pricing products of activities (services, works, products) of budgetary institutions and evaluating the effectiveness of decision-making [6].

At present, accounting in the budgetary sphere requires the improvement of methodology and the transition to a single methodological basis of accounting and reporting, as well as the creation of their unified organizational and information support. In accounting reform, an important methodological approach is to substantiate managerial accounting in the financial and economic mechanism of budgetary institutions. Thus, management accounting is defined as a set of methods and procedures that provide the preparation and provision of information for planning, control and decision-making at different levels of management of an enterprise, institution, organization [2].

Some authors highlight two main reasons for the need to actively seek effective methods of management and management accounting at the current stage of the functioning of budgetary institutions:

- in large budgetary institutions, their management system becomes complicated, so without reliable information to support this system becomes unmanaged;
- the budget of such institutions is estimated at tens of millions of hryvnias, including revenues and expenditures for the special fund reach two thirds. There is a need to obtain information not only in the context of budget classification codes, but also by structural units (faculties, departments, scientific departments, dormitories, laboratories, etc.) [1]. According to theoretical and practical assets of the world subsystem of management accounting, taking into account the peculiarities of the activities of budget institutions, to form centres of responsibility [6,7].

Analyzing the current state of requirements for the implementation of the budget, based on the activities of institutions of professional higher education, we can

propose to create centers of responsibility from the existing structural units of the institution:

- Cost centre: personnel service (in the part of accounting of employees), economic service, cycle commissions on specialties, educational-methodical department, accounting service;
- Revenue centre: personnel service (in the part of student accounting), day department, cycle commissions by specialty, accounting service;
- Centre for Financial Responsibility - Director and Chief Accountant of the College.

In this case, the center of the financial result will be the activity of the college as a whole.

This technique allows for the calculation of the budget to take into account the analysis of performance indicators of the previous period, as well as to analyse in the future additional factors that affect the amount of revenues and expenses of future periods.

Establishment of responsibility centres enable flexible and prompt management decisions that regulate the effective implementation of the budget of institutions of professional higher education. In doing so, this should be enshrined in the relevant regulatory records of the management accounting institution, which provide for the distribution of functional responsibilities (organizational, methodological, etc.), which should outline:

- principles of construction and the concept of management accounting;
- the purpose and objectives of management accounting;
- organizational form and structure of accounting service;
- the accounting system's relationship with the heads of responsibility centres and their motivation system;
- accounting nomenclature and forms of management reporting;
- budgeting methodology, analytical and planning indicators.

Therefore, the introduction of management accounting and the establishment of centres of responsibility for the existing structural units of the institution allow the use of reliable and reasonable statistics for the calculation, formation and analysis of estimates of estimates, and the organization of effective internal control in the institution.

### Conclusions

Formation of centres of responsibility in the institutions of professional higher education provides an opportunity to receive timely, complete, detailed information on the current status of performance of the budget indicators, the possibility of improving the quality of analytical information on the income and expenditure of the institution, which in turn optimizes the process of formation of revenue and expenditure indicators. The implementation of responsibility centers enables the use of reliable and well-founded statistics for the detailed calculation of revenues for each individual source of income and expenditures by CECE, which further prevents inefficiency and misuse of budgetary funds.

### References

1. Atamas, P.J. (2009). *Oblik u biudzhetykh ustanovakh: navch. posib. (dlia stud. vyschykh navchal'nykh zakladiv)* [Accounting in public institutions: studies. guidances (for students higher education institutions)]. Kyiv: Tsentr uchbovoi literatury [In Ukrainian]
2. Biba, V.V., Matyushina, Y.I., Karpets, Y.I. (2014). *Orhanizatsiya upravlinskoho obliku v byudzhetykh ustanovakh yak faktor posyleniya kontrolyu za tsil'ovym vykorystanniam byudzhetykh koshtiv* [Management accounting management management accounting in budgetary institutions as a factor in strengthening control over targeted use of budgetary funds]. *Efektivna ekonomika – Effective Economy*, 5. Retrieved from <http://www.economy.nayka.com.ua> [In Ukrainian]
3. *Byudzhetnyy kodeks Ukrainy* [Budget code of Ukraine]. Retrieved from <http://www.zakon.rada.gov.ua> [In Ukrainian]
4. Fedosov, V. (2004). *Byudzhetnyy menedzhment* [Budget management]. Kyiv: KNEU [In Ukrainian]
5. Murashko, V.M., Storozhuk, T.M., Murashko, O.V. (2003). *Kontrol' i reviziia finansovo-hospodars'koi diial'nosti [navch. posibnyk]* [Control and revision financial and economic activity]. Kyiv [In Ukrainian]
6. Svirko, S.V. (2012). *Kontseptualizatsiia upravlinskoho obliku v budgetnykh ustanovakh* [Conceptualizing management accounting in budgetary institutions Ukraine]. *Scientific notes. Scientific publication*. Kyiv: Kyiv national economic university, 14, 167–173. [In Ukrainian]
7. Svirko, S.V. (2014). *Orhanizatsiya upravlins'koho obliku v byudzhetykh ustanovakh: etap postanovky ta yoho skladovi* [Organization of management accounting in budgetary institutions: stage of production and its components]. *Finansy, oblik i audyt – Finance, accounting and audit*, 2 (24). Retrieved from [http://irbis.nbuv.gov.ua/cgi-bin/irbis\\_nbuv/cgiirbis\\_64.exe.pdf](http://irbis.nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe.pdf) [In Ukrainian]
8. Falchenko, E.A., Chumak, V.N. (2017). *Aktual'ni pytannya formuvannya ta vykorystannya koshtorysiv byudzhetykh ustanov* [Pressing questions of forming and use of estimates of budgetary establishments]. *Visnyk Natsional'noho tekhnichnoho universytetu «Kharkivs'kyi politekhnichnyy instytut» (ekonomichni nauky) – Bulletin of National technical University "Kharkiv Polytechnic Institute" (economic Sciences)*, 24 (1246), 7-10. [In Ukrainian]
9. Cherkashyna, T.V. (2016). *Novi pidkhody shchodo efektyvnoho funktsionuvannya systemy upravlins'koho obliku u derzhavnomu sektori* [New approaches to the effective functioning of the public accounting management system]. *Naukovyy visnyk ODEU*. Retrieved from <http://dspace.oneu.edu.ua/jspui/bitstream/123456789/5381/1/.pdf> [In Ukrainian]
10. Shara, Y.U., Andriyenko O.M., Zhydeyeva L.I. (2011). *Bukhhalters'kyi oblik u byudzhetykh ustanovakh i orhanizatsiyakh: navch. posib.* [Accounting in budgetary institutions and organizations]. Kyiv: Tsentr uchbovoyi literatury [In Ukrainian]