

ECONOMIC AND MATHEMATICAL METHODS OF CONDUCTING INTERNAL AUDITS IN A SANATORIUM-WELLNESS INSTITUTION

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Abstract:

This article covers the assessment of the activities of the service of internal audit of a sanatorium-wellness institution, the development of a methodology, as well as scientific-practical and economic-mathematical methods.

The economic feasibility of activities in a sanatorium-wellness institution was assessed, the factors affecting the results of ordinary and other activities were determined by internal auditors, the method of internal audit was studied economic activity, reflected in Accounting, Financial Reporting and tax accounting. As a result of the analysis of the financial and economic activities of economic entities, the organization of the Internal audit Service, a system was created that analyzes the possibilities of increasing the effectiveness of its activities. This makes it possible to qualitatively evaluate the effective activities of the internal audit of the sanatorium-wellness institution and the provision of internal control.

Keywords

Sanatorium-wellness institution, internal audit, internal control, methodologies, method, assessment, economic-mathematical.

Introduction

The development of internal audit is inextricably linked with the creation of the methodology necessary for its application in practical activities.

The method of internal audit is defined as a set of methodological methods used using special procedures in the study of the facts of economic activity reflected in accounting, financial statements and tax accounting. The method describes the methods of approaching the study of the subject of internal audit and is a means of solving the problems facing the business entity.

In order to carry out the targeted and effective activities of internal auditors, the methods proposed by science are used in a regulatory and systematic way, taking into account their subordination and combination.

The financial and economic activity of an enterprise is a set of actions for the production and sale of goods, services, products using a limited amount of financial resources.

From the point of view of the legal regulation of financial and economic activities of the enterprise, reflected in accounting registers and accounting accounts, financial statements, the methodology of internal audit is based on general scientific philosophical and clear

scientific-practical methods of Object Research.

Philosophical methods are abstract from the specific content of the cognitive process, and scientific and practical methods are designed to reflect its peculiarities in a particular field of science. Common scientific methods include analysis, synthesis, comparison, induction, deduction, abstraction, formalization, generalization, analogy, modeling, concretization, etc.

Analysis is a research method that involves the study of an object by mentally or practically dividing it into structural elements, each of which is analyzed separately, but within the boundaries of the entire object. Thus, the amount of unsecured damage received should be studied from the point of view of the types and segments of activities, types of products, financial and economic activities of the enterprise, which are associated with the disposal of accounting facilities for various reasons.

Synthesis is the reverse method of analysis. This technique in internal auditing is used to study the relationship of an object to its integrity, unity and all its structural elements.

The use of induction methods allows the internal auditor to draw appropriate conclusions based on the study of individual components of the research object. Thus, the study of the amount of income received should be considered from the point of view of the types and segments of the charter activities. It detects illegal activities.

When applying the deduction method, the object is checked in general, but the conclusions of the internal auditor must be confirmed by appropriate calculations, selective examination of the components of the object of study.

Analysis is a method of scientific research, with the help of which knowledge of some objects is achieved on the basis of similarity with others. This style is based on the similarity of some sides of different objects.

One of the scientific and practical methods that can be used in the internal audit process is the economic and mathematical method. It is used by internal auditors to identify factors that affect the results of ordinary and other activities, to take them into account at the stage of studying the general results of the organization and its structural units, and to carry out business optimization. These methodological methods are used when the degree of correlation of factors cannot be determined by other methods.

The authors developed system evaluation tools based on the application of economic and mathematical methods. He also proposed the formation of a system of indicators and criteria that take into account the specifics of the industrial and organizational structure and determine the problem areas of Control [1].

The effective operation of the internal audit inspection system depends on the effectiveness of analytical work, the depth of the analysis and how comprehensively the issue is covered. In the process of analyzing the financial situation of business entities, it is advisable to use new methods of data collection and storage – computer technologies. To simplify the work of analysis, it is necessary to fill out tables specially developed on their basis using separate methods, and then compare, evaluate and summarize using Table indicators.

Material

A balanced system of indicators for assessing the activities of the Internal audit Service is reflected in the assessment of the costs and results associated with the activities of the Internal audit Service, as well as a clearly organized process aimed at measuring the impact of these results on the results of the activities of the enterprise. The results of a comprehensive assessment of efficiency are the final indicators of the main problems of work on the implementation of internal audit and control, allowing timely correction of detected deviations.

The assessment of the effectiveness of internal audit work is one of the most basic tasks for the enterprise, while internal auditors carry out their work, refer to the enterprise with new ideas and recommendations, and further develop its activities. Based on the tasks and functions set before internal auditors, it is possible to assess their effectiveness.

Internal audit methods are the central block of methodological foundations of audit activities. However, analysis shows that today this aspect of the scientific provision of internal audit remains the least developed. In this regard, at present, the issues of internal audit theory in the Republic can be considered much higher, developed at an internationally recognized level, a higher level, in turn, requires an internal audit methodology.

The research methodology includes a critical analysis of the regulatory regulation of auditing activities in terms of the application of sample studies both in theory and in practice [2].

Internal audit is an integral part of internal control. Internal audit allows you to obtain reliable economic data [3].

That the use of various methodological techniques and technical methods or procedures in the practice of internal audit depends mainly on the existing organizational, methodological and technical aspects of the organization's accounting [4].

The main approaches to the selection of elements for performing audit procedures are described, including when using statistical sampling, as well as the formation of conclusions and recommendations by internal auditors based on the results of testing selected elements [5].

On the basis of the reports of the organization, a forecast of the availability and movement of reserves, which can be used for management accounting in the preparation of internal reports by the management of this economic entity, that is, the "plan/report of the movement of reserves", helps to make effective management decisions and can be used in accounting, analytical and managerial activities [6].

Modern science concretizes and details the method of scientific assessment in the context of various interdisciplinary approaches, treating it as methods, means of knowledge of objects and phenomena. According to this definition, the method in the audit activity, according to the author, should be defined as a system of tamouls, techniques, rules, requirements that must be guided in the process of cognition.

In our opinion, it is advisable to use all forms of reporting as an information base, in order to identify the main factors affecting production and then more thoroughly study the

information base of the analysis and research the causes of changes.

Regular use of the Internal audit Service in its activities by business entities is one of the important factors of future success, the organization of which by correctly assessing the effectiveness of the Internal audit Service is one of the urgent tasks of the owners of enterprises.

In our opinion, this is important in assessing the effectiveness of Internal audit Service in business entities.

Method

It is necessary to use the economic and mathematical methods of conducting an internal audit of a sanatorium-health institution in solving simple analytical problems and providing information.

Economic and mathematical methods can be divided into three groups: economic; economic cybernetics and optimal programming methods; methods for studying operas and making decisions.

The peculiarity of the internal control of settlement transactions is due to the variety of regulatory and information support for verification. The proposed methodological support is based on a step-by-step verification of settlement transactions [7].

In analytical work, methods of mathematical programming, Network Planning, Research Theory are widely used. With their help, they solve the most complex analytical problems that cannot be solved by conventional methods. For example, the transportation of goods from a large number of points, the placement of a trading network, the attachment of retail organizations to suppliers.

Matrix models are schematic reflections of an economic phenomenon or process using scientific abstraction. The most common is the method of cost analysis, which allows you to present the correlation of production costs and results in the most compact form.

Mathematical programming is the main tool for solving the problems of optimization of production and economic activity.

Internal audit, sanatorium-wellness institution the method of studying operations is aimed at studying economic systems, including sanatorium-wellness institution economic activities, in order to determine such a combination of structural interconnected elements of systems, which makes it possible to determine this number of possible best economic indicators of internal auditing.

In economic analysis, methods based on cybernetic approaches and solutions are used methods of mathematical Planning Theory, extreme experiments, heuristic methods. These methods are becoming increasingly common due to the use of information and computer technology.

Economic and financial activity, the processes and phenomena taking place in it, the results of which are revealed through various data, which together form an information base. Analytical work always begins with the collection of the necessary information.

Accounting and reporting sources accounting, statistical and operational accounting information, Planning Department, marketing department, main and auxiliary production departments, as well as various operational information of bases and warehouses generating information about the availability and movement of reserves (raw materials, materials, unfinished business, finished products, etc.). Annual, quarterly, monthly and current reports are used in the analysis of economic activity.

Accounting information is divided into additional information (acts of audits, survey materials, decisions of a higher organization, materials of internal and financial control, etc.); information (books of reviews and proposals, decisions of production meetings, exhibition and trade materials, periodic press reports, etc.).

Analysis and Discussion

The level of conducting financial analysis, which is an important element of the management system by internal audit in business entities, largely depends on the quality of the information base, the methods of assessment formulated and applied in it, and should be in accordance with the objectives of the study. This, in turn, is important from the point of view of analyzing the financial and economic activities of economic entities (Table 1).

Table 1. Stages of analysis of the activities of economic entities¹

№	Principles	The purpose of conducting the analysis	Note
1	Selection of the object and subject of research and methods and forms of analysis	Decision on the suitability of the analysis of the activities of economic entities for the purpose of research	Quoting in the internal audit program
2	Data collection, grouping, generalization and formalization	Formation of the necessary information base for the perfect conduct of analysis work, grouping, generalization and formalization of factors affecting production activities by their sphere of influence	
3	Interpretation of the results of the analysis, expression of conclusions and proposals	Development of economic entities, development of conclusions and proposals by economic interpretation of the results of the analysis obtained in order to achieve the intended results	Reflection in internal audit report
4	The use of conclusions and suggestions when making management decisions	The results of the analysis and the use of the proposed recommendations to improve the production activities of economic entities	

Nowadays, the perception of the activities of economic entities as determining the methods of mobilizing internal reserves for accounting and analysis processes has changed much. Its purpose has also changed in relation to its role in developing new management decisions and justifying their expediency, in order to optimize the use of the sphere of influence, resources and increase the effectiveness of the activities of economic entities.

Meanwhile, internal analysis began to be called management analysis, while its transfer

¹Source: Compiled by the author.

relies on preliminary accounting data, operational accounting data and information.

For in-depth analysis and evaluation of the activities of economic entities, it is necessary to use a system of all information flows that represent economic activity. The Information System includes input data, the results of their intermediate processing, output data and the final results of the analysis that come to the control system.

This information consists of comprehensively descriptive indicators at different stages of the activities of economic entities. The information system of the analysis should be formulated and improved taking into account a number of requirements for it. This in turn assumes that the requirements will be based on such principles as objectivity, immediacy, utility. The implementation of the requirements makes it possible to correctly assess the effectiveness of a complete analysis of the activities of directly economic entities.

It should be noted that for the analysis of the activities of economic entities, it is not enough to use the reporting data, which is compiled at the end of the reporting period, since they reflect the state of the farm at the beginning and end of the reporting period, while intermediate processes are artificially lowered. This leads to the fact that the conclusions about economic activity are incorrect or not deep enough. The organization of an internal audit verification system makes it possible to eliminate this situation.

It is known that economic entities are under the positive and negative influence of a number of factors in the process of carrying out their activities. The negative effects of factors can be one, lose their positive effects, and vice versa.

The amount of internal audit costs depends on the section in which it will be held, the objectives of the audit, its tasks and the results of the examination. Therefore, in this work, the basis of the process, indicators of its effectiveness and effectiveness are considered, as well as a general algorithm for calculating the cost of conducting an internal audit indicating the sources of costs associated with this process is indicated.

As you know, as a result of the organization of an internal audit service in economic entities, a system is created that analyzes the possibilities of increasing the effectiveness of its activities.

The military of mathematical modeling methods has both advantages and disadvantages, and there is no single recommendation for the use of this or that method. The choice of a method of modeling the financial activities of an organization in many cases depends on the type of activity of the company, its benefit, its position in the economic environment and many other factors [8].

Therefore, first of all, it is necessary to clarify what are the balance sheet assets in the subjects in which the Internal audit Service should be established. The reason is, in legislative requirements, the need for the establishment of an internal audit service in each subject is determined depending on the balance sheet assets. Today, it is noted that in enterprises, the value of balance sheet assets is more than Rs 1 billion, while in joint-stock companies, the value of balance sheet assets is one hundred thousand times higher than the minimum wage, an internal audit service is established.

The right to decide on the conduct of an external audit at enterprises and to choose an audit

organization is the exclusive competence of the general meeting of shareholders. As for the organization of the Internal audit Service and the appointment of its employees, the resolution of these issues falls within the competence of the Supervisory Board.

Result

Sanatorium-wellness the institution is recommended to use economic and mathematical methods when reviewing financial statements, based on the limited content of internal audit auditing procedures, to draw conclusions that something has attracted its attention, the warehouse forces the goods to assume that they are not drawn up in all important aspects in accordance with.

With the help of a summary, the overall result of the action of individual factors on the aggregate indicator is usually determined. As part of the internal audit of assessment obligations, a simple summary of data can be applied, which is a calculation of the total totals for the studied set of observation units.

Conducting internal audits of the quality system reduces the risks associated with making business and financial decisions.

Internal audit is designed to improve operational accounting, ensure the reliability of documents, preserve valuables and improve the effectiveness of ongoing activities.

Control checks are carried out at scheduled intervals in order to establish that the quality management system: a state standard that meets the planned activities and requirements related to the life cycle processes of the project; maintaining the working condition and effective implementation.

The results of internal audits are an integral part of the initial data for the analysis of the quality management system by management. Two types of internal audits can be carried out at enterprises: the annual program of internal audit is planned to be envisaged; unplanned actions taken in the direction of Management in product inconsistency, consumer claims, changes in consumer demand, etc.

The procedure for performing this work includes the following steps: definition of the verification field; planning and organization of internal audit; selection of auditors; audit of the quality management system indirect departments; registration of information received in the internal audit process and formation of a report; analysis of the results of the examination, development of corrective and preventive measures; report on the results of verification and verification of the measures taken.

Internal audits involve the interaction of various participants: a representative of the quality management, the head of internal audits, the head of the audited unit, the staff of the audited unit, the commission for the development of corrective and preventive actions. The responsibility and interaction of participants is determined in the management of modern technologies and production Matrix, internal audit. The scope of the audit is established by a representative of the management and includes the definition of specific requirements of the quality management system, the fulfillment of which must be verified in the structural divisions of the organization, and the types of activities of the audited unit.

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The main activities of the organization, in relation to which inspections are carried out, are: development of new types of products and putting them into production; production and maintenance of products; technical and material support of production; ensuring the effective functioning of the quality management system, which involves determining the economic effect of the costs incurred in measures to improve product quality.

In this regard, the audit of quality costs should occupy a central place in conducting internal audits of the quality management system. In the corresponding modern technology and production "Quality Management Standards", the issues of dividing the types of activities of the organization, in relation to which inspections are carried out, are presented in general terms. There is no clear designation and clear gradation of types of work in the quality cost management subsystem. Therefore, it seems that the most rational is the allocation of complexes of elements of the quality cost management system that are subject to audit.

Quality costs shsrly audit stefani is particularly difficult to verify the feasibility and effectiveness of management decisions to improve. In the specialized literature on quality economics and management accounting, there is no generally accepted system of criteria for assessing the feasibility and effectiveness of decisions on the management of quality costs. In this regard, the inspectors must murajaat and, accordingly, evaluate the individual private criteria of these assessments.

Conclusions and recommendations

Based on scientific research, the following conclusions and recommendations were reached.

In the preparation of the Internal audit Service report, the procedure for drawing up an internal audit plan and program by the internal audit was substantiated in order to fully collect internal audit evidence, and their sample forms were brought.

When assessing the effectiveness of the activities of the Internal audit Service, it is recommended to pay attention to: the development and implementation of the national standard of internal audit in the assessment of the effectiveness of internal auditors in enterprises; the internal audit unit of the enterprise operates in accordance with the requirements of the standards; the degree to which internal audit units use samples of advanced practices in the field of internal audit based on methodologies of activity efficiency; availability of programs for independent assessment of the effectiveness of internal audit activities by the enterprise; is it potentially beneficial for enterprises to assess the effectiveness of internal audit activities; the presence of criteria for assessing to what extent the requirements and desires of the main consumers of internal audit services at the enterprise are satisfied; the level of utilization of the opportunities to improve the efficiency of Internal audit Service at the enterprise.

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