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УДК 657.6

DOI: 10.5281/zenodo.3335938

КУДРЕНКО Н.В.,
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Інформаційні системи і технології в аудиті

В роботі розглянуто інформаційні системи в обліку і аудиті, їх функції, приклади застосування інформаційних систем, які використовують бюджетні установи на різних рівнях.

Основною передумовою виникнення аудиту є взаємна зацікавленість підприємства в особі його власників, держави в особі відповідних фіскальних органів, що справляють податки і збори та особисто аудитора в забезпеченні реальності та достовірності обліку і звітності.

Аудит є обов'язковою частиною цивілізованого функціонування ринкової економіки кожної країни.

Відповідно до історичних узагальнень, передумовами виникнення аудиту можливо назвати наступне:

по–перше, для вирішення непорозумінь між податковими органами і керівними структурами, що представляють інтереси власників щодо підвищення ефективності виробництва, державного контролю вже було недостатньо, адже він захищав лише інтереси держави;

по–друге, аудитори стали потрібні й незацікавленим сторонам – суду й арбітражу, які відстоювали справедливість;

по–третє, розвиткові аудиту сприяло також розмежування функцій та зацікавленість підприємців в правильному і неупередженому відображенні господарських операцій тому, власники компаній почали наймати спеціальний незалежний апарат управління.

Таким чином, основна сутність аудиту – це надання практичної допомоги керівництву і економічним службам підприємства у веденні та відображенні господарських процесів, управлінні його фінансами, а також правильному веденню фінансового і управлінського обліку з метою прийняття ефективних управлінських рішень, надання різних консультацій тощо. З метою кращого і швидкого отримання результату аудитори використовують інформаційні системи.

Інформаційні системи – це сукупність інформації, апаратно–програмних і технологічних засобів, засобів телекомунікації, баз і банків даних, методів і процедур, персоналу управління, які реалізують функції збору, нагромадження та оброблення інформації для підготовки та прийняття ефективних управлінських рішень.

Сучасні інформаційні системи здатні не тільки цілком задовольнити вимоги виробничих систем, але й виступають важливою передумовою їхнього розвитку. Сучасні управлінські інформаційні системи покращують зв'язки між учасниками правління, віддаленими структурними підрозділами, проводять аналіз господарської діяльності не лише ретроспективний, але і перспективний, здійснюють контроль в режимі он–лайн.

Ключові слова: *аудит, інформаційні системи, інформаційні технології, облік, звітність, інформація.*

*КУДРЕНКО Н.В.,
ДЕМЬЯНЧУК С.Ю.*

Информационные системы и технологии в аудите

В работе рассмотрены информационные системы в учете и аудите, их функции, примеры применения информационных систем, использующих бюджетные учреждения на разных уровнях.

Основной предпосылкой возникновения аудита является взаимная заинтересованность предприятия в лице его владельцев, государства в лице соответствующих фискальных органов, которые оказывают налоги и сборы и лично аудитора в обеспечении реальности и достоверности учета и отчетности.

Аудит является обязательной частью цивилизованного функционирования рыночной экономики каждой страны.

Согласно историческим обобщениям, предпосылками возникновения аудита можно назвать следующее:

во–первых, для решения недоразумений между налоговыми органами и руководящими структурами, представляющими интересы владельцев по повышению эффективности производства, государственного контроля уже было недостаточно, ведь он защищал только интересы государства;

во–вторых, аудиторы стали нужны и незаинтересованным сторонам – суда и арбитража, которые отстаивали справедливость;

в–третьих, развитию аудита способствовало также разграничение функций и заинтересованность предпринимателей в правильном и беспристрастном отражении хозяйственных операций, владельцы компаний начали нанимать специальный независимый аппарат управления.

Таким образом, основная сущность аудита – это оказание практической помощи руководству и экономическим службам предприятия в ведении и отражении хозяйственных процессов, управлении его финансами, а также правильному ведению финансового и управленческого учета с целью принятия эффективных управленческих решений, предоставление различных консультаций и тому подобное. С целью лучшего и быстрого получения результата аудиторы используют информационные системы.

Информационные системы – это совокупность информации, аппаратно–программных и технологических средств, средств телекоммуникации, баз и банков данных, методов и процедур, персонала управления, реализующих функции сбора, накопления и обработки информации для подготовки и принятия эффективных управленческих решений.

Современные информационные системы способны не только полностью удовлетворить требования производственных систем, но и выступают важной предпосылкой их развития. Современные управленческие информационные системы улучшают связи между участниками правления, удаленными структурными подразделениями, проводят анализ хозяйственной деятельности не только ретроспективный, но и перспективный, осуществляющих контроль в режиме он–лайн.

Ключевые слова: аудит, информационные системы, информационные технологии, учет, отчетность, информация.

KUDRENKO N.V.,
DEMIANCHUK S.Y.

Information systems and technologies in the audit

The information systems in the accounting and audit, their functions, examples of using information systems for budget institutions at different levels are considered in this work.

The main precondition for the audit is the mutual interest of the enterprise in the person of its owners, the state, in the person of the respective fiscal authorities, which make taxes and fees and personally the auditor in ensuring the reality and reliability of accounting and reporting.

An audit is a mandatory part of the civilized functioning of the market economy of each country.

According to historical generalizations, the prerequisites for the audit may be called the following:

– firstly, to resolve misunderstandings between the tax authorities and the governing bodies representing the interests of the owners in raising the efficiency of production, state control was already insufficient, since it protected only the interests of the state;

– secondly, auditors have become indispensable and disinterested parties – court and arbitration, which upheld justice;

– thirdly, the development of audit was also facilitated by the delineation of functions and the interest of entrepreneurs in the correct and impartial reflection of business operations, therefore, the owners of companies began to hire a special independent control unit.

Thus, the main essence of the audit is the provision of practical assistance to the management and economic services of the enterprise in the management and display of business processes, the management of its finances, as well as the proper conduct of financial and managerial accounting in order to make effective management decisions, provide various consultations, etc. Auditors use information systems to better and quickly obtain the result.

Information systems are a set of information, hardware–software and technological tools, telecommunication facilities, databases and data banks, methods and procedures, management personnel that implement the functions of collecting, processing, storing and processing information for the preparation and adoption of effective management decisions.

Modern information systems can not only fully satisfy the requirements of production systems, but also act as an important prerequisite for their development. Modern management information systems improve communication between management members, remote structural units, carry out an analysis of economic activity not only retrospective but also promising, carry out monitoring online.

Keywords: *audit, information systems, information technologies, accounting, reporting, information.*

At the present stage, for the effective development of the enterprise it is necessary to implement information technologies in almost all spheres of activity, especially audit. Computerization of accounting significantly facilitates the conducting of the audit.

Under information technology understand the system of methods and methods for the search, collection, accumulation, storage and processing of information on the basis of the use of computing.

Audit technology is largely a creative process, the features of which depend on both the particular enterprise being tested and the practical experience and views of the auditor.

Audit activity has its own specifics and therefore there are requirements for audit software:

1. Availability of advanced means of control of operations (control at the time of execution of the document or posting);

2. Increased flexibility (the program should be reconciled more quickly to the specifics of different types of enterprises; also computer systems should take into account general standards and separate accounting rules for the enterprises that are checking);

3. Ergonomics (the availability of facilities for convenient input of large volumes of information, prompt and simple reporting);

4. Communication at the database level with accounting software. Necessary additional tools for input and output data presented in various formats.

In addition to the basic requirements, audit software should have the following characteristics: ease of development, speed, professional operational support from developers.

In practice, the design of a computer information system auditing (CIS AT) can be traced two fundamentally different approach to their creation.

1. Using a set of tests (worksheets), focused on the introduction of information on the observance of certain rules of accounting. In this case, the client's accounting information is completely or partially ignored. This way can lead to a significant risk of error, so a more promising second approach.

2. Orientation to the primary information of the client, which reflects economic operations at the synthetic and analytical level. In this case, significant time consuming input of customer data is required.

In the second approach, there are two ways to create a KIS BP:

1. the computerization system of the audit in stages;
2. Computerization system for audit tasks complexes.

The computerized audit process in stages involves the use of network architecture and the storage of all data in a single database to which system users must have authorized access to the appropriate level. Users are given various rights to work with the system, which in a simple way are divided into two levels: the supervisor and auditors. All information recorded in the database should be available at the same time to all members of the audit team.

There are three stages of the technology of the auditor in the KIS DR:

- 1st preparatory stage;
2. carrying out the inspection;
3. the final stage.

At the preparatory stage, the customer information, the main book data, accounting metrics, and other information are studied and recorded in the database. The auditor's study of the accounting system and the internal control of the audited entity is determined by the computer data processing system (COD) used by him.

When conducting an audit in the COD, the purpose and basic approaches to determining the methods of conducting an audit are retained. However, the RCD affects the auditor's study of the accounting system and the internal control of the audited entity. This is due to the fact that the sources of information for the auditor are the accounting documents on a computer-readable medium, in the computer memory is a permanent reference information, an automated form of accounting is applied.

While working in the KOD environment, the auditor examines the organizational form of data processing, the form of accounting and its automated sections, the application of a local or network version of data processing, archiving and storing data. The auditor should also describe the technical, software, technological support of the RCD. He evaluates the capabilities of the computer system in terms of its flexible response to changes in economic legislation, the formation of managerial reporting, the conduct of analytical procedures, as well as the degree of qualification of accounting staff in the field of information technology.

In conducting an audit of the CAO, the client's auditor needs to perform the following tasks

1. It is necessary to get acquainted with the organizational form of data processing and the level of auto-

mation of managerial tasks, including the tasks of accounting. In small businesses, where data processing is performed by one accountant, accounting software and information base are concentrated on one computer. With more than one person accounting, it is about multi-user systems that implement the work of several users with an information database. The auditor should understand the main differences between these technologies, as it affects the audit procedures and audit risks that are due to them.

2. The auditor should give an assessment of the correctness of the choice of automation tasks and express an opinion on the tasks, areas of accounting, work units, where the application of computer technology data processing will have the greatest effect. First of all, the automation of the work of the most overloaded units, which impede the work of the enterprise. First of all, automate accounting and analysis of accounts receivable.

3. During the audit the auditor should examine and evaluate the organization's document circulation system: the order of formation, registration, storage, processing of documents and transformation of primary documents into the system of records on the accounts. It is necessary to find out the places of origin of the primary information and the degree of its collection and registration. To do this, the auditor should familiarize himself with the scheme of location of automated workplace management personnel at the enterprise.

4. The auditor should give an indication of the methods of data entry and the formation of records of business operations. Automated and automatic-generation of accounting records and postings on the basis of typical operations and electronic forms of documents avoids many errors that are inevitable when manually entering and forming postings. A mistake may also be encountered in typical wiring or in electronic forms that need to be verified. It is necessary to study the organization of storing information on business operations and the ability to quickly obtain information on business transactions, documents and print it out.

Mandatory audit procedure is the testing of data entered into the system of accounting records. This procedure involves testing the completeness of documents in the paper version and testing the conformity of paper documents to their electronic copies, introduced into the system. The lack of this correspondence is a sign that reporting is false.

6. The auditor should ensure that the data of the information system is preserved, in the simplicity of access to data and in the limitation of unauthorized access to them.

7. Particular attention is paid to checking the reliability of the means of internal control in the environment of the COD. The auditor is obliged to identify weaknesses in the control of computer accounting systems: to consider hardware and software controls, organizational measures (data archiving, virus testing). He needs to analyze the ways of organizing the control of the completeness and correctness of introducing primary information into the information base, control, processing and selection of data, to assess their adequacy and effectiveness. In many users of network systems, the focus of attention should be the process of data transfer.

8. The auditor should carefully check the correctness of the calculation algorithms.

An error in the calculation algorithm, which is repeatedly applied to recurring business operations, may distort the result of economic activity.

After these tasks are performed, on the basis of the received information, preliminary financial analysis, evaluation of the level of materiality and audit risk, a general audit plan and responsibilities are distributed among the members of the audit team.

In determining the auditor's risks arising during the audit of the financial statements due to the impact of the RCD, the rule (standard) «Risk assessment and internal control. Characteristics of accounting environment of the computer and information system» should be guided.

Audit planning in the COD system is carried out in accordance with the rule (standard) «Audit planning».

When planning an audit with the use of computers, it is necessary to take into account the following: the provision of an audit organization with equipment necessary both for carrying out the audit and for the provision of accompanying audit of computer-assisted services; the date of commencement of the audit, which should correspond to the date of submission to the auditor of the data in the form agreed with the economic entity; the fact of involvement of experts in the field of information technologies; knowledge, experience and qualifications of the auditor in the field of information technologies; the expediency of using tests made without the use of a computer; the efficiency of using a computer during an audit. When composing a

general plan and an audit program, account should be taken of the degree of automation of accounting information used by the economic entity of information technology.

The audit planning documents should reflect the nature of the implementation of the audit procedures using the RCD, the need to involve an independent expert in order to study and assess the system of the CAO of the client as a whole and its individual parties, the date and form of data provision from the computer accounting system to the auditor, audit documentation.

Next, the auditors in accordance with the received tasks independently conduct the analysis of accounting records in the main book in order to identify inaccurate and non-typical operations, determine the level of materiality of the indicators by sections, develop programs of audit by sections, taking into account the characteristics of the economic entity.

The second step is to conduct an audit, during which the auditor examines a certain set of business operations (the size of the set is determined by internal standards). When investigating a separate business operation, the auditor must have the following capabilities: during the course of work refer to the prevailing stage of the local base of rules in its section; to register in the database all verified transactions and their comments on them; to register the committed errors and violations of the considered economic operation, using a directory of typical accounting errors; to register in their local rules the rules of their section are their own professional judgments about compliance with or non-compliance with individual accounting rules.

When collecting audit evidence in the COD system, the «Audit Evidence» rule (standard) should be followed. Sources of obtaining audit evidence are data stored in the system of accounting records in the files, primary documents, in the array of information about business operations. Or the client or the auditor himself creates the necessary chronological and system registers in the necessary sections and includes them in the working papers of the auditor. Similarly, an auditor can make accounting statements. The auditor should ensure that the accounting records prepared by the accounting system of the Code correspond to the data of the primary accounting.

At the final stage, the auditor carries out an assessment and analysis of the information obtained

during the audit. Automation allows him to assess the severity of the violations found. The processing and assessment module should quickly calculate the violations detected based on the data taken by the levels of severity and verified operations, the number of detected violations of accounts and the value of the verified aggregate. At the same time, a certificate should be formed about the number and nature of so-called qualitative violations, that is, violations that do not affect the balance of the checked account or which can not determine the magnitude of distortion of reporting.

The result of the audit of the section for the auditor is the idea of the reliability of the verified section, documenting the inspection and preparing a report of the head. When documenting an audit in the system of the COD, the rule (standard) «Documentation of the audit» should be used.

At this stage of the development of information technology, for audit and other accounting at the level of budgetary institutions, the following software is most often used: AIS «Local budgets» and a newer system introduced since 2019, «Treasury Customer Client».

Information and Analytical System (IAS) Local budgets is a territorially distributed information and analytical system that is used to manage the processes of compiling and executing local budgets. The purpose of the system is to automate and standardize the processes of drafting local budgets, paintings and changes, as well as control and analysis of the implementation of local budgets.

Main functions of the system:

- drafting of the local budget;
- drawing up and transfer of budget requests to funds administrators;
- drawing up of paintings and changes to the local budget;
- analysis of the implementation of the income and dividends of the local budget;
- reporting and calculation of transfers;
- making changes to the local budget.

The main components of IAS are:

1. IAS «Local budgets of the city level, district».
2. IAS «Local budgets of village and village level».
3. IAS «Local budgets of the level of manager of budget funds».

Over the past years, the State Treasury Service of Ukraine has been implementing a full-scale implementation of the Remote Servicing System (SRS) «Treasury Client – Treasury».

The system of remote servicing of the clients of the State Treasury of Ukraine is a reliable and easy to use system with a wide range of functional capabilities.

In particular, the list of functions to which administrators and recipients of budget funds should have access must include:

- the functions of maintaining the Unified Register of Managers and recipients of budget funds;
- functions of exchange of planned budget documents;
- functions of creating and signing memorial documents;
- download information on budget commitments and budget commitments;
- functions for obtaining data on the movement of funds.

Implementation of the system of remote customer service through the SRS «Treasury Client – Treasury» will ensure a full cycle of servicing budget funds managers at all levels, optimize the costs of supporting the process of servicing budget funds at all levels, accelerate the processing of information, reduce the time for treasury budget maintenance, reduce costs removals for printing and transportation.

Conclusion: The current stage of accounting and auditing development is characterized by the use of information technology. For the most part, computer auditing of information systems is required if the automated system is designed to process confidential or sensitive information. But these include computer accounting systems. Conducting a computer audit is also useful after the construction of the automated system and its security subsystem at the stage of acceptance into operation to assess the degree of compliance with the requirements imposed on it.

Information technology in the audit and accounting significantly accelerates and facilitates the work of specialists.

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