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Information technology in the accounting

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The widespread use of information technology in accounting contributes to the main purpose of accounting - the effectiveness of collecting, recording and processing of accounting information. In industrialized countries for the purchase of specialized software for bookkeeping spent billions of dollars. These facts prove that the automation of accounting is one of the most important components in the dominant companies.

Keywords: Accounting, Information technology, Software system, Information security.

1. INTRODUCTION

The accounting information systems' development experience proves that the top priorities of the company's business include the efficiency of collection, registration and further processing of accounting information.

For example, according to «International Date Corporation» for the purchase of specialized software for bookkeeping spent billions of dollars. These facts prove that the automation of accounting is one of the most important components in the dominant companies.

Consequently, there is a principal change in the technologies to record the transactions, purpose and essence of accounting registers, meaning that they turn from the source forms and generalization and grouping of information into the final forms of analytical trend, the accounting information's structure is changed, which is aimed to form information as necessary for management activities.

Accepted Accounting Principles (GAAP) with modern information technology resources.

AIS is responsible for providing timely and accurate financial and statistical reports for internal management decision making, and for external parties such as creditors, investors, and regulatory and taxation authorities.

The purpose of accounting information systems - collection, recording, storing and processing data to obtain information for decision making. AIS - a set of interrelated components that interact to achieve a goal. Most accounting information systems consist of smaller subsystems and, on the contrary, each organization has its purpose. Accounting Information Systems, you can use advanced technology to be a simple system of cellulose and a pencil or something in between. Technology is simply a tool to create, maintain or improve the system. Accounting information systems topics affect corporate strategy and culture.

2. MODERN ACCOUNTING INFORMATION SYSTEMS

An accounting information systems that combines traditional accounting practices such as the Generally

Study of the structure of modern accounting information systems (AIS) testifies to the fact that it includes various subsystems, the list of which is generalized in the table below.

Table.1. Structure of modern subsystems AIS

#	Support types	Brief characteristics
1	Technical	An aggregate of the used technical tools, computing networks, technologies of the web-based accounting data processing. Structure of the subsystems is formed by: technical resources collection and registration of accounting information, tools, training tools and data transmission means, tools information input, processing and output media, tools office equipment and others; teaching materials; technical documents, servicing staff.
2	Software	An aggregate of the programs, achieving the goals and objectives of the systems and ensuring the functioning of hardware components' set used in AIS. Structure of the subsystem includes: general for the system, specially applicable and original accounting programs and guidance materials to use them.
3	Linguistic	An aggregate of the language tools intended to formalize the language of construction and combination of information units AIS. Structure of the subsystems is formed by: languages to control the data of the information base, language tools for information-retrieval systems, dialogue languages for special purposes, systems of terms and definitions used in the process of development and functioning AIS.
4	Legal	An aggregate of the legal regulations covering the legal relationships that arise upon functioning of AIS, and the legal status of its performance. Structure of the subsystems is formed by: various regulatory enactments connected with the contractual relationships between the system's developer and customer, legal regulation of processes that arise in the course of AIS development.
5	Mathematical	An aggregate of the mathematical methods, models and algorithms to process information. Structure of the subsystems is formed by: tools of mathematical support, tools of modelling the management processes, methods of mathematical programming, methods of mathematical statistics AIS and other.

6	Organizational	An aggregate of the documents, methods and tools to regulate the interaction of staff of the system and technical resources employed in the data processing. The subsystem's functions include: analysis of the current AIS, selection of the ways to improve it, choice and raising of new tasks, formulation of requirements for a set of complex tools.
7	Ergonomic	An aggregate of the methods and tools used at different stages of development and functioning of the automated accounting system accounting and designed to create optimal working conditions for the accountant.

2. THE PROBLEM OF ACCOUNTING INFORMATION PRESERVATION

Widespread use of computer accounting form expands the prospects for its practical implementation and further development at the global level. The prospects for development of accounting automation programs are:

- use of the up-to-date information technologies;
- implementation of new options to adapt the programs to the end-user's needs;
- development of mechanisms to interact with other programs;
- development of document flow control systems;
- interaction with a variety of accounting systems;
- compliance of the accounting systems and taxation systems with the legislation requirements;
- creation of new versions of programs, including additional options for both financial and management accounting;
- formation of the company's reporting indicators in an automatic mode;
- transparency of the systems.

The problem of accounting information's preservation is one of the important aspects under given conditions. Alongside, major requirements may include:

- separate identification of individual users and terminals;
- creation of individual programs (tasks) by name and functions;
- control of accounting data, if necessary, down to the level of record or item.

In this view, it is necessary to set certain restrictions of access to the accounting information, through use of the integrity of the following methods:

- hierarchical classification of access;
- classification of accounting information by importance and place of its occurrence;
- indication of specific restrictions and application thereof to information units, for example, the user can only read the file, without the write right therein.

Statistics show that over 80% of the companies and firms have the financial performance as loss due to a breach of the security system. In this regard, many companies are developing various antivirus programs, systems to delineate access to data, protection against copying, etc., rationalizing it subject to an increasing need for development of security methods aimed at a more efficient functioning in the market.

Preservation of information shall ensure that any movement of accounting data is identified. The 'Datamedia' company's development can be an example of the wide-spread hard-and-software security complex. Its series of computers 'Netmade' is fitted with a special device 'Securecard': security card reader. Security cards by execution constitute one of the alternatives of credit cards. The entry is made about the user (his/her name, password) and all the powers that he/she gets when entering the systems are described at the cards' magnetic medium through use of special equipment, which is available to the administrator only. In particular, the card shows the number of times a user can try entering the password at login. Thus, a random security card loss or theft will make it impossible the offender to gain access to the computer. Only a conscious transmission of the security card to someone at the same time with a disclosure of the password may open the access for a third person to the computer.

3. THE ORGANIZATIONAL REQUIREMENTS FOR THE INFORMATION SECURITY SYSTEMS

Applying these software tools for security or other, one should pay special attention to the organizational aspects of implementation. The organizational requirements for the information security systems should include:

- limitation of access to computing systems (registration and tracking of visitors);
- monitoring of changes in the systems;
- testing and verification, to changes in the system, of the software and programs security;
- maintenance of mutual control over the implementation of rules to ensure data integrity;
- establishment of restrictions on privileges of the personnel, servicing the data processing system, fulfilment of warranty claims in case of violations;
- recording the protocol on access to the systems and competence of servicing staff.

It is also expedient to develop and approve the written manuals:

- on starting and stopping the accounting information systems;
- on control over the use of magnetic tapes, disks, cards, listings;
- on tracking the order of modifying the software and bringing such modifications to the user;
- on the system recovery procedure in failure situations;

- on policy of limitations upon allowed visits to the computing centre;

- on determination of the extent of outgoing accounting information.

To implement these arrangements one shall install the system to log using the computer, data input and findings output, providing regular cleaning of archives and storages of tapes, disks, cards for exclusion and the elimination of the unused accounting documents in accordance with the set standards.

The computer security tools are not restricted to only the protection tools located within the computer or as peripherals. All the aforesaid software and hard-and-software tools to secure information become efficient only with a strict reference to a whole range of impartial and partial circumstances. Therefore, before building up the security system, one should estimate the costs to create it and potential costs for liquidating damages in case the secured accounting data are lost.

It should also be noted that all types of AIS protection are interrelated and failure of at least one of them narrow down the efforts of others to nothing. To achieve the required level of information security it is advisable to approach this problem in a comprehensive manner, i.e. to acquire not a set of tools to secure, but the complex solutions that are integrated into applicable information technologies in accounting.

4. CONCLUSIONS

Modern accounting information systems include various subsystems. The use of these subsystems enhances accounting. However, there is a problem of preservation of information records.

This problem will contribute to the totality of the following ways:

- Hierarchical classification of access;
- Classification of financial information on the importance and place of its occurrence;
- An indication of the specific limitations and their application to information objects, such as when the user can only read the file without the right to write to it.

Applying these or other security software, you should pay attention to the organizational aspects of the implementation. The article highlighted the organizational requirements for information security.

Should also be develop and adopt written policies on the use of information systems, install logging software usage, data entry and display of results, providing a conducting periodic cleaning of archives and storage tapes, CDs, maps to exclude and eliminate unused accounting records in accordance with established standards.

Also important is the assessment of the cost of establishing a system of protection and possible mitigation costs in the event of loss of protected accounting data.

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