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To the problem of automation of accounting and analytical process in the system of information and economic security of the enterprise

Current trends of automation of accounting and analytical process of accounting entities in Ukraine are determined in the article. Main software used for automate accounting processes including: «1C», «Best Zvit Plus», «Parus» were compared. Stages necessary for achievement of information security by means of effective use of the automated accounting systems were allocated. Attention was focused on a problem of automated accounting systems functioning in terms of economic security tools and prevention of unauthorized information use on the enterprises.

Keywords: accounting and analytical software products, automation of accounting and analytical processes, efficiency of activities of the entity, managerial «1C» software complex, the security of information.

The problem and its connection with scientific and practical tasks. In the market conditions of ménage automation of process of account gives possibility to save an enterprise considerable specific gravity of own resources, and main – in good time and operatively to accept effective administrative decisions. As practice of ménage certifies, efficiency of account rises considerably, if his information is complete enough, timely and dynamic, that stipulates the necessity of automation of process of its generation. For this reason on the modern stage of development of productive forces before companies which aim effectively to organize own activity, the task of successful choice of software product appears for automation of account and analysis which will satisfy as many as possible their requirement.

Features of accounting and analytical process differ depending on the characteristics of the company, the industry, and specific products or services produced or provided by them and so on. Therefore and until now a question of

successful choice of software is a problem for registration-analytical services in accordance with the specific of activity of every being in charge subject.

Research and publications analysis. An important contribution to the development perspective the use of information systems and technologies in accounting and analytical work of the company made such scientists as: M. E. Skrypnyck, S. V. Ivahnenkov, V. V. Evdokimov, A. O. Sarajeva, L. I. Vlasenko, A. A. Korda and others. Among foreign research workers will select: E. K. Gilde, K. E. Dallas, V. I. Isakova, Y. V. Sokolova, D. V. Chystova, O. D. Shmigel and others. In particular, research of theoretical and methodical aspects of development and introduction of the computer informative systems of account, analysis and audit are carried out by M. E. Skripnik on enterprises [11, p. 14–25]. Potential advantages, and also problem aspects which arise up at introduction of the automated form registration-analytical it is thoroughly described activity of enterprise in works of S. V. Ivakhnenko [6, p. 56–62]. Except for that, consider that the special attention is deserved by works V. V. Evdokimova, in which an author gives own vision of application of information technologies on large enterprises [5].

As a result, it should be noted that the research prospects of automated accounting and analytical process at using the latest advanced information technologies are not sufficiently numerous and fragmented.

The goal of the article. The task of research consists in an analysis and evaluation of modern tendencies in relation to automation registration-analytical to the process of being in charge subjects in our country and lineation of possible ways in relation to the improvement of the formed tendencies in the nearest and remote prospect in the conditions of necessity of providing of informative safety of enterprise.

Presentation of the material and results. Modern software in relation to automation registration-analytical a process on an enterprise can divide into two basic directions: programs of spreadsheets or electronic databases (for example Excel, Access of Microsoft, SQL, Quattro Pro of Borland (Inprise), SuperCalc of Computer

Associates, Lotus of Lotus Development Corp.) and directly book-keeping software products.

It is well known that the issue of creation and implementation of information systems in the enterprise remains one of the most difficult in Ukraine. It is important that the causes of unsuccessful implementation of information system of accounting include: lack of clear project objectives; unformalizing business processes; company unwillingness to change; lack of focus on project management [6, p. 57].

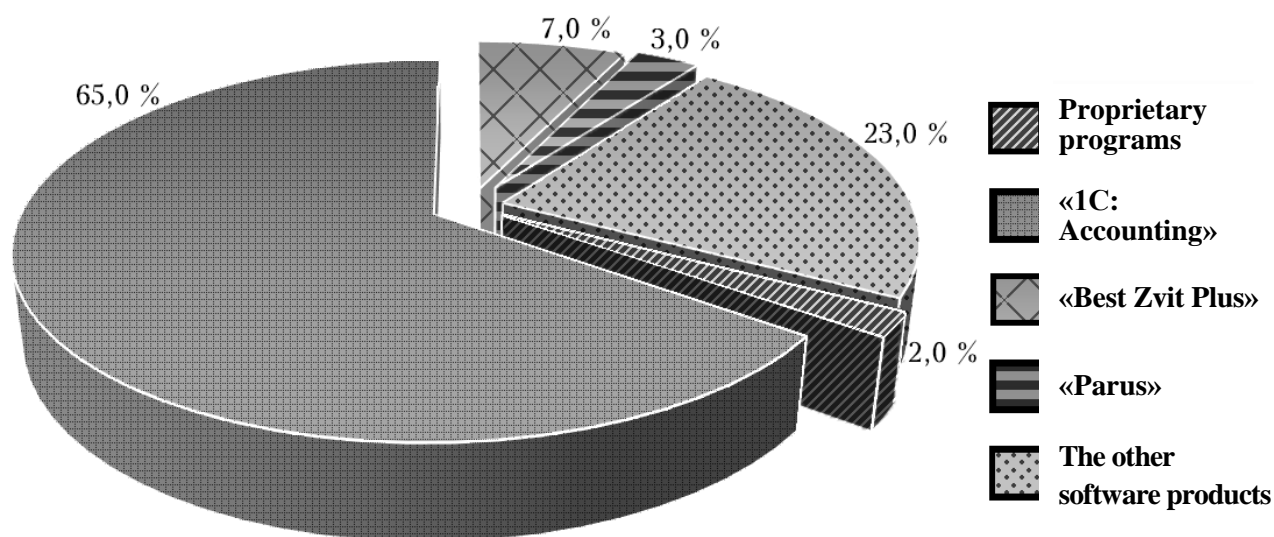
In the questions of creation of departments of informatization and workflow book-keeping service there are many irrelevances and failings which brakes development of the proper informative network. Among them it follows to select the followings: use of both new and ramshackle, various programmatic facilities, that considerably complicates maintenance of the informative system and reduces an effect from its introduction; the removal of separate lacks of various programmatic facilities can pass to the everyday problem which needs development and introduction of the system of monitoring of the state of all informative network; absence of normative base is for adjusting of the automated form of account at domestic level [5].

At introduction of the new informative systems on an enterprise it is necessarily needed to estimate the risks of lag from competitors through their moral wear. After completion of realization of measures on a supply and setting of software, it is necessary to co-ordinate the degree of requirement in adaptation of typical configuration of software with the features of conduct of account on an enterprise. Often enough in relation to introduction of progressive computerization made decision in an order to replace the informative systems which already do not answer business terms or for subsequent acquisition of competitive edges. As practice of ménage, introduction of expensive foreign software products of computerization of record-keeping, shows does not allow at once to provide the decision of all problems registration-analytical to the process on an enterprise. Domestic software products must answer basic registration-analytical to the requirements, to be in a position to conduct registration, analytical, supervisory work, taking into account the specific

lines of every separate enterprise (industry of activity, size and pattern of ownership of being in charge subject).

On the modern stage of development of the computer systems there is a far of the various programs which in one or another measure provide implementation of complex of daily registration-analytical operations.

We give rating of the automated software products which purchased the most use legal and physical entities in the present terms of conduct of economic activity in our country (pic. 1).



Pic. 1. Rating of software products which are used for automation registration-analytical to the process on enterprises in Ukraine*

**Developed and generalized on the basis of sources: [4, 9].*

As evidently from a diagram, software products of complex «1C» are one of most widespread for the use on the enterprises of Ukraine, that is why deem it wise to conduct the review of advantages and failings which are got by an enterprise on condition of their use.

System of the programs of «1C: Company» intended for the decision of wide spectrum of tasks from automation of account and analysis, that stand before enterprises in the present terms of conduct of economic activity. «1C: Company» shows by itself the system of the applied decisions, built after the unique principles

and on the unique technological platform [10, p. 23]. Leader can choose a solution that meets the current needs of the company and will continue to deepen in expanding its automation tasks accounting and analytical process.

To advantages of decisions on the basis of «1C» belong: 1). a presence of plenty of potential personnel is for work in a company, where the inculcated decisions on a base «1C»; 2). maximally rapid and high-quality support of book-keeping decisions from the side of company-developer of «1C»; 3). possibility to create or finish off individual projects which take into account business process of every organization; 4). presence of the built-in object-oriented language, specially developed a company «1C»; 5). complete openness of software products of «1C» (possibilities of «1C: Company » allow to minimize effort on the change of the system of automation and it subsequent accompaniment); 6). a receipt of the prepared document is by typical forms with the minimum expenses of time; 7). absence of requirement is in high qualification of specialists; 8). possibility is on the certain moment of time to get the program which would maximally answer the put task [10, p. 34]. However, the substantial failing is low safety and protected of information, which is using by the program.

By another software product which purchased wide distribution in the present terms of ménage there is «Best Report Plus» – a programmatic complex is intended for automation of processes of work with the current document of standard pattern. It provides electronic document organization in all the entities of any type of ownership and funding sources or between them and government regulatory agencies, which supply reports provided by applicable law. There is also provided opportunities to integrate data from any accounting program («1C», etc.), transfer accounting by e-mail using the encryption subsystem and sending others.

Software package «Parus» intended for automation of commercial enterprises and budgetary institutions at various levels. All software «Parus» have rich functionality, a range of different dictionaries and reference books. This allows you to configure the system to the requirements and characteristics of your process and at the same time make daily operations simple and user friendly. The advantages of

simplicity of development, rich functionality, high reliability operation, settings for different types of businesses, reduce costs by automating the selection of the optimal configuration with the possibility of further extension, analysis of accounting data and information in a database [1, p. 52].

It follows to understand that introduction of the specialized programs is effective only then, if investigation of their implementation is an increase of efficiency improvement of quality of conduct of record-keeping on an enterprise which shows up in: to greater efficiency of registration process; diminishing of amount of book-keeping errors; increasing the efficiency of accounting and presentation of results improve information security in general.

One of the significant aspects that influence the process automation and analytical accounting mechanism in the enterprise is a choice of ways to protect your information. By the results of violation of rights for automated accounting systems can be: escaped to information, loss of information, imitation of information, violation of work of registration automated accounting systems [3, p. 76].

The use of automated accounting and analytical systems in information security system in the enterprise should be ensured through: compliance subjects of legal relations norms and expectations and practices of organizational and technical information on protecting processed; use of computer equipment, software, communications and automated accounting and analytical systems in general, information security, which meet the requirements for its protection (with services); verify that the computer technology, software, communications and automated accounting systems general requirements established information security (certification of computer technology, communications and automated accounting and analytical systems); monitoring data protection [12].

Automated security system must manage the company chief security expert, who shall report directly to the head of each phase of the life cycle accounting and analytical systems.

If the effective application of automated accounting and analytical systems leveling risks associated with security, can be achieved in four stages:

1. identification of remedies defined area of the automated system;
2. evaluation of reliability of protection in this region;
3. evaluation of the probability that the act will be successful security breaches, given the set of protection at the site of the automated system and their reliability;
4. evaluation of losses incurred enterprise security breaches if the act pass protection in a particular place automated system [8, p. 70].

Analysis of the aforementioned steps, safety-related enterprises in the use of automated accounting and analytical systems allows them to identify weaknesses in order to further eliminate.

Summarizing previous experience in respect of the automated form of accounting and analysis, you can define the requirements to be met by modern information systems [2, p. 37]:

- 1) work of all agencies in a single database;
- 2) a fully autonomous robot remote office if all actions;
- 3) the informative system must be in a position of organization of up-diffused workflow and allow to apply and combine all possible technologies of remote co-operation;
- 4) information system should provide document covering all divisions of the company (corporation): branches, branch offices and remote offices;
- 5) information system should provide integration into a single information space (the only document of distributed data processing) not only all business units, but all customers complete list of services provided.

As to the first requirement, the data processing is performed on the central computer. In all offices of organization set terminals which co-operate with a central computer. Any operations can be executed in a remote office, access to which is let a concrete performer, are both operations from service of customers and registration operations. Thus these functions can be and part, and combined. The system has maximal flexibility. True, disbursing here will be capital investments in communication.

In this case, to minimize traffic between a central computer and remote terminals and provide acceptable sentinel descriptions during work of user with the system, system must be developed in three-level architecture «client-server».

With regard to the second requirement, all technological chain operations are fully carried out in a remote office. With the set periodicity the transmission of information is carried out in a main office and reception from there of information for its subsequent synchronization and actualization. On the specified frequency information is transmitted to the main office and received information from there for further synchronization and updating.

With such a construction business process information system should be built to communicate. Moreover, system tools replication is no longer enough, because a clear need to provide application level synchronization logic states of system objects. Part of the process chain runs in a remote office, and some – in the central [7, p. 85].

As an example of information system for the scheme can be considered an operation with a new client signing the contract for cash management services. Under these conditions, a customer comes in a remote office and submits all necessary documents for the conclusion of the treaty. These documents are entered into the system and sent to the head office. There are documents required control client is assigned an identification number. Then again baton passed to a remote office that completes the operation.

In this case, the information system should provide: a formal separation of each operation on the technological phase; the possibility of exchanging data between geographically distributed performers within a technological operation.

It is obvious that the use of a technology is determined by the interaction of expediency – economic, technological, administrative – and poses the third requirement, which suggests that similar movement to realize the need to automate accounting workflow to a financial institution is a unitary understanding that automation interbranch payments should be extended to interbranch document, which provides not only exchange payment documents, but applications for conversion, granting of credit, and more [2, p. 39]. Branch also can send to headquarters the raw

data and / or aggregates for consolidated reporting, and from the main office to get value limits for certain transactions on visas lending etc.

Thus, expanding the limits of the tasks associated with the construction workflow system, we can formulate the fourth requirement, under which information systems originally relied on transfer payment orders to the institution and sending account statements from the bank to the office client. But with the development of this technology is rapidly an expanding and nomenclature message – application for converting currency for cash, newsletters and more. As a result, the system of exchange of financial messaging transformed into a complex system.

In addition, the concept of «customer office» is becoming increasingly virtually [7, p. 87]. More and more clients are actively moved not only by country but also around the world, and of the office they favor a laptop computer. Moreover, a computer can be not personal, but all co-operations carried out through a global network. It is possible to assert that on such conditions, an «office» is a man, capable that or by other method to identify itself at included in the informative system.

Conclusions and directions for further research. It is possible to assert as a result of research, that a main progress of programmatic facilities of automation of financial operations trend consists in universality of the noted facilities. We believe that the development of information systems is less likely to be guided by the highly specialized field of activity. The software of the future will be a not highly specialized banking or accounting systems, and corporate office software systems. And provided that distinct trend to decentralize data storage and server business, it is undoubtedly true is the assertion that the system of the future – corporate branched network. In these circumstances, they will be built, first as workflow systems; secondly, as a system, implemented in three-tier architecture «client-server» that blurs the boundaries between local and global networks; and, thirdly, a system that provides document management in the global information space with the ability to work offline various parts of this document.

Information security – an area sufficiently closed, and related problems – one of the most difficult in the development of automated accounting and analytical

information systems. Since the vast majority of business processes are automated, that any failure can lead to significant loss of information. It is important that during the application of automated accounting and analytical systems, the company can use them as tools to ensure their own economic and information security brokered appointed toolkit allows:

- explore the most important factors that influence the functional components of the economic condition and information security;
- learn the basic processes that affect the guarantee of economic and information security.

Despite the fact that Ukraine has introduced a number of relevant regulations, the problem of functioning of automated accounting systems and analytical tools for the establishment of economic and information security and prevents unauthorized use of information by companies is still not resolved.

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Шматковська Т. О. До проблематики автоматизації обліково-аналітичного процесу в системі формування інформаційної та економічної безпеки підприємства

Анотація. В статті акцентовано увагу на тому, що для ефективної організації власної діяльності, перед підприємством постає завдання вдалого вибору програмного продукту для автоматизації обліково-аналітичного процесу, що максимально задовольнятиме його вимогам та враховуватиме особливості функціонування. Окреслено сучасні тенденції щодо автоматизації обліково-аналітичного процесу господарюючих суб'єктів в Україні. Визначено основні переваги та недоліки при застосуванні комп'ютерної техніки та інформаційних технологій для автоматизації обліку та аналізу на підприємствах в нинішніх умовах ведення господарської діяльності. Висвітлено основні фактори, що потребують врахування при впровадженні нових інформаційних систем на підприємстві.

Подано співставлення найбільш-поширених програмних продуктів, що використовуються для автоматизації обліково-аналітичного процесу на підприємстві, зокрема «1С», «Бест Звіт Плюс» та «Парус». Охарактеризовано засади роботи в програмному продукті «1С» та окреслено недоліки щодо його застосування у процесі автоматизації обліково-аналітичної діяльності підприємства. Запропоновано можливі шляхи щодо покращення сформованих тенденцій в найближчій та віддаленій перспективі в умовах необхідності забезпечення інформаційної та економічної безпеки підприємства. Виділено етапи, необхідні для досягнення інформаційної безпеки за допомогою ефективного застосування автоматизованих обліково-аналітичних систем. Акцентовано увагу на проблематиці функціонування автоматизованих обліково-аналітичних систем в аспекті

налагодження інструментарію економіко-інформаційної безпеки та уникнення несанкціонованого використання спеціалізованої обліково-аналітичної інформації на підприємстві.

Ключові слова: обліково-аналітичні програмні продукти, автоматизація обліково-аналітичних процесів, ефективність функціонування підприємства, управлінський програмний комплекс «ІС», інформаційна безпека.

Шматковская Т. А. К проблематике автоматизации учетно-аналитического процесса в системе формирования информационной и экономической безопасности предприятия

Аннотация. В статье акцентировано внимание на том, что для эффективной организации хозяйственной деятельности, перед предприятием стоит задача удачного выбора программного продукта для автоматизации учетно-аналитического процесса, который будет максимально удовлетворять их требования и учитывать особенности функционирования. Определены современные тенденции автоматизации учетно-аналитического процесса хозяйствующих субъектов в Украине. Описаны основные преимущества и недостатки при применении компьютерной техники и информационных технологий для автоматизации учета и анализа на предприятиях в существующих условиях ведения хозяйственной деятельности. Изложены основные факторы, требующие учета при внедрении новых информационных систем на предприятии.

Сопоставлены базовые программные продукты, используемые для автоматизации учетных процессов на предприятии, в том числе «ІС», «Бест Звит Плюс», «Парус». Дана характеристика принципов работы в программном продукте «ІС» и обозначены недостатки по его использованию в процессе автоматизации учетно-аналитической деятельности предприятия. Предложены возможные пути по улучшению сложившихся тенденций в ближайшей и отдаленной перспективах в условиях необходимости обеспечения информационной и экономической безопасности предприятия. Выделены этапы, необходимые для достижения информационной безопасности с помощью эффективного применения автоматизированных учетных систем. Акцентировано внимание на проблематике функционирования автоматизированных учетно-аналитических систем в аспекте налаживания инструментария для информационной и экономической безопасности с целью избежания несанкционированного использования специализированной информации на предприятии.

Ключевые слова: учетно-аналитические программные продукты, автоматизация учетно-аналитических процессов, эффективность функционирования предприятия, управленческий программный комплекс «1С», информационная безопасность.