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Software market analysis for preparing records and reporting

The article investigates the Ukrainian segment of the software market for reporting. We have performed the analysis of the most popular programs («Art-Zvit Plus», «M.E.Doc», «Sonata», «iFin», «1C:Zvit», «SOTA», «TAXER», «EDVZ») and describe their functional possibilities so as compare them. This allowed us to determine the software products that best meet the needs of users in relation to the formation and reporting.

The purpose of the study is the analysis of software for the reporting, identifying their main advantages and disadvantages.

The influence of cloud-technologies on the organization of accounting, specifically organization of reporting is revealed.

Prospects for further research in this direction are the choices of software for report preparation and reporting.

Keywords: *software; accounting; reporting; electronic flow of documents; cloud-technologies.*

Problem statement. The process of report preparation and reporting is a lengthy and time-consuming, since it implies the systematization of accounting information for a selected reporting period, its processing and generalization. The use of computer technologies for the report formation and reporting is effective, due to the ability of accounting software to automatically perform the calculations to check for errors, to tag the accounting data of various documents and to construct final indicators.

Creating, signing, editing, and electronic reporting is accomplished through accounting software (SW), the amount and functionality of which is increasing and expanding in Ukraine every year. The development of modern information computer technologies has introduced significant changes to the system of electronic document circulation, electronic accounts that require their own consideration when choosing SW.

Analysis of recent researches and publications. The computerization of accounting, including reporting raised in the work of many researchers, in particular, K.O. Volska, S.V. Ivakhnenkova, S.F. Lehenchuk, V.I. Odnovolyk, A.O. Pashnina and others. The issues of using cloud technologies in accounting are gaining topicality; they were studied by few domestic scientists, among which R.I. Machuha, N.V. Holiachuk, S.Ye. Holiachuk, M.P. Pavliukovets. However, the works lack the researches of modern SW for the report formation and reporting.

The purpose of the study lies in the analysis of software for the report formation and reporting brought to the Ukrainian market, matching of their functionality to the requirements of economic development.

Statement of basic research material. The development of the market of accounting software in Ukraine happens amidst the rapid development of digital technologies and at the same time, in a difficult economic and political conditions.

Odnovolyk V.I. notes that the Ukrainian market of accounting computer systems is developed in three areas: 1) traditional accounting system («1C:Enterprise», «Parus», etc); 2) systems of electronic reporting and exchange of electronic documents («M.E.Doc», «Art-Zvit Plus», etc); 3) software services for accounting on the basis of cloud technologies («SaaS Oblik», «iFin», «SMART accounting») [5].

However, analyzing the current market of accounting software, it may be noted that such direction branching is not complete. At the present stage purely accounting software products can be divided into programs for accounting and programs for the report formation and reporting in electronic format. Typically, these products are the offline version, however, increasingly frequently developers are offering also the online version (cloud-based technologies or cloud technologies).

Cloud technology is the technology upon which the users can use computing resources of the remote server as web service via the Internet on their local personal computer. That is all work and calculations are done remotely, and the main factor of the availability of this technology is the availability of the Internet.

The following models of cloud services are the most common:

– IaaS (Infrastructure as a Service) allows the user to place and use different software and operating systems. Representatives of providing this service model are Microsoft, Red Hat, Amazon, etc [1];

– PaaS (Platform as a Service) means that a user can deploy in cloud infrastructure a variety of services, applications or tools, which are supported by a particular provider of cloud services. Similar to the previous model, you do not need to control the cloud infrastructure, network of servers provider, storing

the data. But, unlike the previous model, the user can control application host process, and configuration settings of specific hosting environment. A vivid example of this model is Google Apps [1];

– SaaS (Software as a Service) means a user can use various applications that are hosted in the cloud, while not controlling cloud infrastructure, the provider service network, storing the data etc. The user functions are within the configurations of specific application for users. It should be noted that the advantage is that this type of application is available on any operating system and any device [1]. In the field of accounting, this model is the most common [3; 4, p. 35];

– DaaS (Desktop as a Service) means desktop serves as a service. The user has access to the software complex as a whole, which is necessary to complete the work, not to the individual software applications, as in the previous models. That is, the user is provided with his own virtual workplace that he can adjust in accordance with the requirements [1];

– STaaS (Storage as a Service) is a storage service. The user is provided with the ability to remotely store data by having constant access to it, organize it and archive, regardless of the volume [1].

These technologies enable the user to use hardware and software resources of a powerful computing servers with the help of web interface. However, the complex infrastructure of cloud technology, especially the operation of the platform and applications is hidden from the user in the cloud and presented in a unified information environment [8].

The use of cloud technology in accounting has several advantages, among which are: 1) to use such programs one should only has access to the Internet; 2) remote use from anywhere, which is especially important for accountants and managers of the enterprise, because while traveling, they can remotely carry out their work, and even submit reports to regulatory authorities); 3) reducing the costs of installing and maintaining additional software and the like.

Holiachuk N.V. and S.Ye. Holiachuk [2] expand the list of benefits from using «clouds» for business, in particular:

– reliability means information is stored on remote servers abroad along with software and physical protection system, besides access to data is only given to a limited number of individuals in the enterprise, and the loss of computers does not mean loss of enterprise databases in the cloud;

– convenience is determined by the ability of the system to restore the old data, create backup copies;

– updatability means that cloud services are constantly and automatically updated.

However, the awareness of Ukrainian business users about cloud technology is at a low level. According to the study, conducted by GfKUkraine in cooperation with the company DeNovo, 47 % of representatives from IT-services have superficial knowledge about them. Business users, including CEOs, in general, are not familiar with cloud computing [2].

Most enterprises currently use various software products of domestic and foreign markets among which: «1C: Accounting», «Parus», «M.E.Doc» etc. Use of above mentioned software products requires appropriate skills. This results in a number of conditions under which a staff will be able to conduct computerized accounting in the enterprise, in particular:

– compliance with the technical base of computer hardware requirements of the program;

– grasp by a staff necessary skills to work with computers;

– continuous improvement of skills of work with a program when its new version appears;

– familiarization with the market of accounting software products to search for the optimum to use;

– the constant creation of backups, archives, and the program data to ensure their storage in the future in case of failure of computer equipment or corruption, etc.

These requirements are much easier implemented with the application of cloud technologies, which generally provide basic knowledge to operate computer technology and the availability of the Internet.

Pavliukovets M. P. notes that the introduction of cloud-computing accounting and its proper logistics optimizes not only the process of enterprise management, and can also be ensured significant improvement of information management at branch level. Since, the cloud is the computer form of accounting, unlike paper and plain computer forms, that has no restrictions neither in the spatial sense, nor in the number of users of information [7].

Currently in the domestic market the first cloud technology for accounting starts to being used. Notably, experts have recently gained the opportunity to use a web service «SOTA», designed on the basis of software product «M.E.Doc» that is an online service for accounting, reporting and flow of document. That is, the access to the Internet from any computer gives an opportunity to a user to create, store and exchange reports and documents.

Therefore, accounting not only requires computerization, which at the moment is the absolute factor for the optimization of accounting at the enterprise, but also forms the basis for deepening the use of information technologies in accounting. In fact cloud technologies have widely begun to be used since 2008, and their application in accounting has not yet received such distribution and application.

Let us compare accounting SW for report formation and reporting presented on the Ukrainian market (table 1).

Characteristics of the main accounting software products for the report formation and reporting

The program	Comparative characteristics					
	Version	Departments to put in	Electronic flow of documents	Technical support	Advantages	Disadvantages
«Art Zvit Plus»	Offline version	SFS, PFC, SSC	No	Yes	Work with branches and consolidation	Limitations of report forms; outdated interface; no network version
«M.E.Doc»	Offline version*	SFS, PFC, SSC, SIFU, etc.	Yes	Yes	Additional modules; the user-friendly interface; network version; tips on filling out reports	The price is higher for the keys of the other CA except "CA Ukraine"
«Sonata»	Offline version	SFS, PFC, SSC	No	No	User-friendly interface	Limitations of report forms; no network version; the imperfection of import
«iFin»	The online version	SFS, PFC, SSC	Yes	Yes	Works on any operating system; can work from different gadgets	The limitations of the report forms; the weakness of electronic document management and technical support; small manuals
«1C:Zvit»	Offline version	SFS, PFC, SSC, SIFU	Yes	Yes	One system with the software «1C: Enterprise»	The dependence on the software "1C: Enterprise"; the electronic flow of documents only within "1C"
«SOTA»	The online version	SFS, PFC, SSC, SIFU, etc.	Yes	Yes	User-friendly interface; tips on filling out reports	There are working failures
«TAXER»	The online version	SFS, PFC	No	Yes	User-friendly interface and speed; automatic reminder to pay taxes and reporting; online payment of UST	Work with a limited number of different digital signature of the CA; the limited authorities for the reporting; only for the sole proprietors without workers
«EDVZ»	Offline version*	SFS, PFC	No	Yes	Free	Working failures; delays in updates; no exchange of tax invoices; weak technical support

Note: *it has an online version which is developed on the basis of «M.E.Doc»
Note: **the installation of specialized software is required to work in «EDVZ», i.e. involves the use of offline version

So, analyzing the Ukrainian software market for reporting, we can conclude that all software products have several common features: simultaneous management of multiple enterprises; auto-filling the fields of reference books and company data file; auto-calculation of report formulas.

However, not all of these programs can work with its subsidiary companies and consolidation of reporting, these include «Art Zvit Plus» and «M.E.Doc».

It is also possible to highlight key characteristics of effective accounting software for the report formation and reporting, which must comply with such a program: a list of supervisory authorities, where reports are put in; ability to create tax invoices and calculations of adjustment to them, their signature and registration in URTI; the creation of primary documents (invoices, acts, etc.); supports electronic data interchange with partners (exchange of primary documents); the use of network software; user-friendly interface; a list of reporting forms; quality technical support and advising; a wide range of support with DS from various CA; auto-filling and auto-calculation; work with a variety of enterprises (legal entities and sole proprietorship); arithmetic and formal verification of the correctness of the reports and primary documents.

On the basis of the mentioned main characteristics of effective accounting software for the report formation and reporting, we can define «M.E.Doc», «SOTA», «1C:Zvit» and «Art zvit Plus» as the most optimal ones according to certain criteria. However «Art Zvit Plus» has more disadvantages compared to the other mentioned software products due to the limitations of the reporting forms.

Abroad for creating and submitting electronic reports they usually use software that in its complex has this kind of a function but it's a whole software complex allowing to carry out not only accounting but also management. Table 2 demonstrates several of the most well-known business and accounting programs containing electronic reporting.

Table 2

The most famous foreign accounting and business programs (summarized from [6])

The program	Brief characteristics
«CXO-Cockpit»	This reporting platform was developed by CXO Solutions BV. It is based on pre-built and customized adapters such as Enterprise Performance Management (EPM) that connect directly to multivariate financial data and inherit their hierarchy, structure and metadata without depending on IT and costs
«OneStream XF»	It is a unified software platform of the CPM, on the desktop or in the cloud for medium and large enterprises that simplifies complex processes for the provision of financial consolidation and reporting, planning and operational analytics
«XERO»	Cloud accounting software designed for small business owners and accountants. It allows to determine the amount of sales tax
«The BlackLine Finance Controls and Automation Platform»	Powerful cloud technology that enables automation in real-time to give the teams of accounting and finance the opportunity to manage their processes
«SlickPie»	Free online accounting program designed for small businesses, offers online invoicing, financial reporting, expense tracking, managing sales tax

The market of this software is highly developed and wide since most of such software is developed by enterprises themselves, or on their demand, to ensure the best adaptation to the peculiarities of a particular company and its capabilities. These programs work with the help of the Internet, you can access them on any device i.e. computer, tablet or smartphone, in most cases they use cloud technologies and systems.

Conclusions. Accounting software for reporting in Ukraine, taken the requirements for reporting into consideration, is becoming more widespread. After all, at the legislative level more and more areas, particularly reporting, become a subject to electronic document management, which in turn causes the demand in the market of software products. The programs such as «M.E.Doc», «SOTA» and «1C:Zvit» are not only the most effective in ensuring user requirements, but also the most popular. Taking certain trends in the development of information and computer technologies into account, we can predict that further development of software for report formation and reporting will occur in the directions of the proliferation of cloud technologies.

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