

# Information Technologies of Accounting and Analysis in Modern Companies

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## Abstract

This article addresses the issue of finding optimal solutions using the information technologies of accounting and analysis in modern companies. The aim of the study is to reveal available information technologies for the needs of small, medium and large businesses operating in modern conditions. This goal is achieved by using systematization, comparison, and analysis of information, obtained under the survey and open management statistics. For the first time, the paper systematizes up-to-date information of 2021 about the most popular programs, online services, platforms and cloud services that are used to improve accounting and analytical processes in enterprises of various sizes. The main global trends in software development in terms of COVID-19 pandemic have been identified. In particular, the study defines the countries that occupy the leading positions in the informatization of business processes. An attempt was made to classify information technologies by their use by various volume of businesses. The analysis of research results of the Internet search query frequency regarding the use of information technologies enabled to determine the most popular software products worldwide. The peculiarities of information technologies, their advantages and disadvantages were examined and the common and distinctive features were compared. It was determined that for the new enterprises to implement information technologies, it is necessary to conduct a step-by-step study of all available software products. The software evaluation algorithm was described to help select the optimal software for the specific business processes. The paper also describes the way to solve the problem of using accounting and analysis software for the businesses of a specific kind of activity.

## Key words:

*Information Technologies, Cloud Services, Automation, Accounting and Financial Analysis.*

## 1. Introduction

The International Monetary Fund recently announced the possibility of a significant global economic downturn as a result of the COVID-19 pandemic. The recovery of economies all over the world is projected to continue until the end of 2021. However, despite such prospects, the

market for accounting and financial analysis software is recovering. So, we can expect an increase in global sales of financial and accounting software by 20%, amounting to \$416 million [1]. It is necessary to state this growth is much faster than the growth of the overall software market, because the pandemic harmed the development of general informatization processes.

Promoting the use of automation of accounting and analytical processes creates the basis for the emergence of new software products that will be adapted to the needs of businesses in various areas and countries. This assumption justifies the relevance of this paper's issues and their practical significance. The study of information technologies of accounting and analysis of modern companies allows to assess the current state of software, identify its strengths and weaknesses, as well as common and distinctive features. As a result, it will help using the software products that are more suitable for the business processes of new companies, which introduce new approaches in the organization, production and sales. It should be noted that developers of software for accounting and analysis enter the market both in the segments of large corporations and modern innovative small businesses. The development of software for accounting and analysis is particularly important for the enterprises in a wide variety of industries that lack software products enabling them to adjust properly the financial and accounting processes considering their specific activity.

Despite numerous studies in the area of information technology, the use of new software is always relevant, because ready-made solutions become outdated and do not meet current market needs. There is a constant demand for current research that reflects the real supply of information technologies for accounting and analysis. That's why the main purpose of the study is to reveal available information technologies for the needs of small, medium and large businesses operating in modern conditions. To achieve the goal, the following tasks were performed: the general trends of information technologies for accounting and analysis in the world were examined, the classification

of software was considered, the main features, advantages and disadvantages of the most popular software products were determined. The study is also of substantial practical importance because it allows companies, accountants and managers to obtain up-to-date and systematic information about various types of software that can be used to improve their business processes.

## 2. Literature review

Nowadays, literally all nations in the world are doing their best trying to cope with the challenges related to COVID-19 pandemic and lockdown. Many businesses rebuild their operating model and offer their employees the opportunity to work remotely from home. Ordinary employees, let alone accountants and financial analysts, seek for the suitable solutions facilitating the access to business financial records.

In accordance with the statistics, the market for financial and accounting software amounted to \$12.01 billion in 2020. Moreover, it is expected to reach about \$19.6 billion by 2026 [2]. In fact, this market went through many changes and innovations over the last twenty years. Cloud-based accounting solutions are probably the most important innovation.

The market is characterized by a large number of vendors who use accounting solutions as a basis for their products and benefit from the low costs offered by cloud technologies. In essence, the market is very dynamic with many start-ups losing the competitive struggle due to various reasons. The most common ones are poor selling offer, imperfect service and unreasonable price.

A lot of scientists proved that accounting software had a great impact on improving the business efficiency [1; 3; 4; 5; 6]. Mostly, it is used to register accounting transactions properly and keep track of the incoming and outgoing money flows. Besides, accurate statements, cost-effective operations and time-saving will surely contribute to the growing demand of accounting software among entrepreneurs, business owners and accountants in the future. In fact, accounting transactions are quite complex and there is always a risk to make errors. That's why businesses buy tailored solutions to improve their functionality, replace the outdated systems and eliminate the human factor. Accounting software can cope with the calculations a way better. Interactions between information technologies and modern companies are quite complex. It is influenced by a large number of factors, including the organizational structure, operating standards, corporate culture, environment and management style [7]. The development of information systems is determined by the following factors:

- the need to obtain more accurate and detailed information about business processes in the enterprise;

- the need for mutual contact with employees responsible for the implementation of business processes;
- intensive development of information technologies.

According to Oguj, scientific studies pay much attention to analyzing the structure of the information technology market and studying the peculiarities of information technology formation according to the market needs [8]. The development of innovative companies in the world also has a positive impact on promoting the software in developing countries, which have a lot of specific accounting and taxation features. That's why, according to Pleskach, the study of the aspects of information technologies used at the current stage and their impact on the acceleration of production processes become increasingly important [9].

Due to the fact that the software market is constantly evolving, the use of modern products for accounting and analysis remains relevant for research.

## 3. Materials and methods

This study is conducted using general scientific methods of cognition, which include analysis, synthesis, induction and deduction. Structural-functional analysis as well as economic and statistical methods of information gathering and processing are also used in this research. In particular, general scientific methods are used to collect and process data on the use of information technologies in accounting and analysis of financial metrics.

The interrelationships between the software are investigated using a structural-functional method. Methods of the arrangement and comparative analysis are used to define the strengths and weaknesses of the information technologies, as well as to find their common features and main differences. The results of the study were obtained on the basis of a survey conducted to determine the most popular programs that are designed for accounting and analytical purposes. The developed conclusions and generalizations are based on statistics from open databases, which contain the results of surveys and statistical sampling on the use of information technologies at the global level during 2020-2021.

## 4. Research results

More and more international corporations and large modern businesses are switching to advanced process automation systems. It should be noted that North America and Europe dominate the world market for the introduction of automated systems. A significant segment of the market is occupied by the Asia-Pacific region and Latin America, where there is an annual increase in the use of automated management and accounting systems.

According to the World Economic Forum and INSEAD, a rating of 1 to 7 points was implemented to analyze the level of information technology use in accounting and finance of corporations [10]. Iceland received the highest number of points, occupying the first place in the rating of informatization of accounting and financial processes with its 6.2 points. Japan, the USA and Norway received 6.1 points each (see Fig. 1).

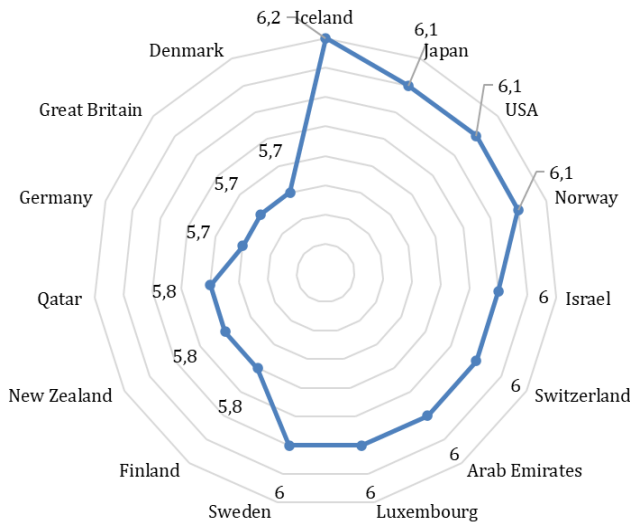


Fig. 1. Rating of the use of information technologies for accounting and analysis in global corporations of various countries (2016)

World practice shows that automated accounting and financial management systems are a powerful tool for improving productivity and production efficiency. The World Economic Forum, held in cooperation with the INSEAD International School of Business, noted the close link between information technologies and economic prosperity. These institutions proved the use of automated systems played a leading role in innovation, productivity and competitiveness, helping diversify the economy and stimulate business activity, which in turn allowed improving the living standards of the population. Therefore, it is not surprising that in developed countries, the area of business process automation develops rapidly and becomes a guarantee of sustainable economic development [10].

Nowadays, in terms of a pandemic, many companies decide to reduce the expenses on the informatization of business processes. In particular, spending on programs for marketing research will be reduced by 44%, sales technologies – by 39%, information systems for interaction between business participants – by 38%, support of information technologies – by 36%, management and organizational processes – by 33%, software related to hiring employees – by 22%. When it comes to analysis and accounting software, most companies will also be forced to cut their spending, but this cost will be reduced by only 21%, according to the expectations of 2,168 business respondents who took part in the 2021 TrustRadius survey [1].

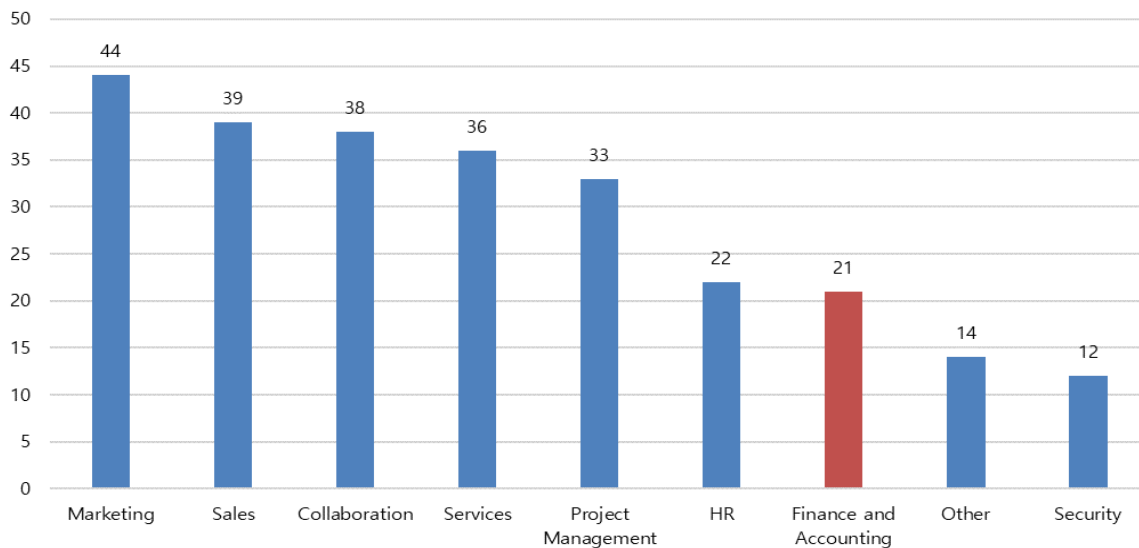


Fig. 2. Possible reduction of costs (%) on the use of information technologies in various sectors of the economy due to the pandemic COVID-19

In such conditions, companies will choose cheaper software or switch to comprehensive information systems allowing them to manage all business processes. Website

TrustRadius, which collected information on the possibility of reducing the costs associated with the pandemic, showed the rapid growth of interest in

accounting and analytical software, which began in mid-2020. Obviously, managers are trying to choose alternative solutions that will optimize costs. The same fact is confirmed by Google search queries in the area of financial and accounting services, which peaked in the middle of the traditional tax season in the United States [1]

It should be noted that popular software products for accounting and analysis are divided into three types: large integrated products, products of medium integration and local solutions.

Local solutions successfully cope with certain accounting problems in enterprises that have special business processes. However, they do not provide integrated management services and automation of all business processes. Low cost and relative ease of implementation are the advantages of such systems. These are often services that help solve accounting issues for certain transactions, such as salaries or customer settlements.

Medium integrated systems represent complex accounting solutions that may contain elements of financial analysis. As a rule, such solutions are used for almost all business processes that require documentation but they do not cover all areas of the enterprise's activity. Large integrated systems are advanced and complex. Typically, they use Western MRPII and ERP management standards. Such systems allow not only to automate accounting and reporting at all levels but also show automated results of the analysis of financial activities with the emphasis on problematic areas that need to be addressed.

According to the World Bank, 90% of all businesses in the world in 2020 are small and medium-sized. As of 2020, software products listed in Table 1 were the most popular among entrepreneurs (according to website TrustRadius), small and medium-sized businesses in the world. To a greater extent, these are local services as well as automation services of the main business processes used by small businesses.

Table 1: The most popular software products for accounting and analysis in small and medium enterprises in 2020\*

Software	Description and characteristics	Advantages and disadvantages
<u>Sage Intacct</u> (online.sageintacct.com)	Sage Intacct provides the ability to generate reports and trial balances. It's also a good service for accounts payable, accounts receivable, financial reporting, general ledger activities, tax tracking, and all ancillary finance and accounting functions.	Advantages: Allocations that allow to spread expenses or revenue across multiple dimensions such as customers, departments, and classes. Reporting can be filtered to show only a specific entity or the report can show all entities combined. You can also set up groups for different objects. Disadvantages: Program does not show correctly the allocation of entry; search fields for entries, can only be used by knowing the start of what you are searching for. Search fields for dates are limited.
<u>Sage 50cloud Accounting</u> (sage.com)	Service is used for all accounting purposes and especially for time-keeping and expense reports.	Advantages: One stop tool, ease of access, website is user-friendly, everything is available on a single page. Disadvantages: Remote access can fall over, help desk has very long waiting time, stock is not integrated automatically into P&L.
<u>Xero</u> (xero.com)	Xero is used for sales invoicing, accounts receivables management, expense reconciliation, accounts payable, bookkeeping functions and financial reporting. It addresses all accounting and financial management needs. It's a comprehensive application that allows manual journal entries, integrates well with other applications, and is very user-friendly.	Advantages: Sales invoices and reports can be customized, integrates well with other applications, easy to use for people with no accounting background (also suitable for those with advanced accounting expertise). Disadvantages: Not a lot of room for customization of invoice/quote templates; complicated to add new accounts.
<u>Quickbooks Online</u> (quickbooks.intuit.com)	Application is used for accounting, invoicing and payroll and as the system to run financial reports to evaluate the financial health of the company.	Advantages: Financial reporting, payroll, account reconciliation. Disadvantages: There is no ability to customize dashboard, no e-mail reminders for monthly reports, no graphs for P&L comparisons.
<u>Wave Accounting</u> (waveapps.com)	Cloud-based accounting software helps with all accounting needs of small businesses.	Advantages: Wave is very easy to use and accessed from any computer. It can be integrated with other software and tools to make the accounting process easier. Disadvantages: Problems with support; there is no ability to customize the results according to needs of accountant.

Quickbooks Desktop Pro (quickbooks.intuit.com)	The application is used for generating invoices (in conjunction with our industry-specific CRM), receiving payments, log payments and expenses, generating reports necessary for our accountant and different financial requirements.	Advantages: Generating templates and formatting forms, customized reports, imports and exports to/from various formats. Disadvantages: Support, pricing, speed.
Quickbooks Desktop for Mac (quickbooks.intuit.com)	Service is used for all accounting purposes.	Advantages: Simple adding of customers, vendors, employees. The reports can be used to analyze the financial status. Disadvantages: New version is not well tested, there are problems with help desk.
MYOB (myob.com)	Program is used for service routes, construction projects & job costing, payroll, inventory management and financials (balance sheet/P&L).	Advantages: Well-functioned system, able to make inventory, payroll, and set tax features. Disadvantages: Software update, support and communications, problems with changing templates.
Quickbooks Desktop Enterprise (quickbooks.intuit.com)	Financial program that allows to create documents and templates, bill directly within the program and make financial sheets.	Advantages: Big number of vendors and customers; batch entry of bills; being able to drill down from summary reports; being able to see the history of a transaction. Disadvantages: There is no progress report and import of blanks.
Workday Financial Management (workday.com)	Workday Financial Management is used to track working hours, paid time off, pay stubs. It helps to stay on track by calculating the number of hours every employee works and when they hit their overtime.	Advantages: The platform is very organized and user-friendly; it offers a variety of options for the company to offer to their employees. This includes easy access to their time off balance, hours they have worked, and accessing pay stubs any time. Disadvantages: Problems with updates, the lack of user guides and supporting information for day-to-day users, the lack of treasury management functionality.

\*Note: collected by the authors based on the official websites of developers

Statistics show that since the beginning of 2020, small and medium-sized businesses employing up to 1,000 employees accounted for about 57% of all users of information technologies. Another 43% are representatives of large businesses with more than 1,000 employees [1]. However, during the period of active reporting, the demand for software increases more in enterprises with a staff of up to 250 people, while relatively large enterprises remain stable in the choice of software. This is largely due to the complexity of the transition of all business

processes to new software packages, which stops the business from constant migration from one platform to another.

It's also interesting to analyze the statistics of financial services used by small businesses. The data show that, as a rule, small businesses do not use them. In particular, about 10% of all companies never use software products for analysis, about 30% use them in limited quantities and to a greater extent when this use is too late or after generating losses (See Fig. 3).

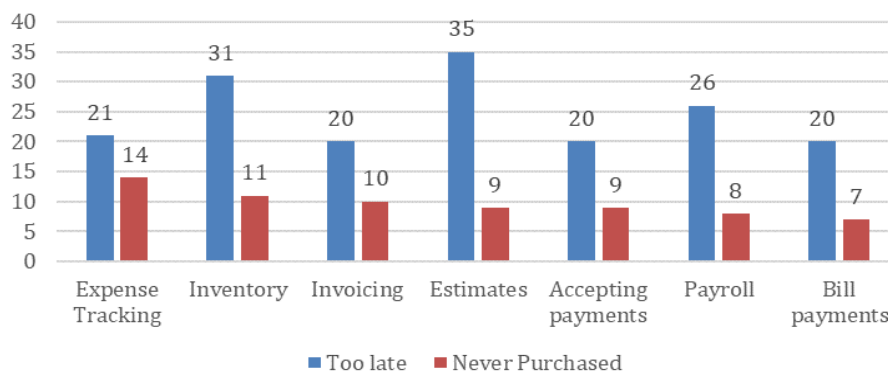


Fig. 3. Purchase of business analysis software by small businesses in 2020  
Source: [11]

Analyzing customer requests, it becomes clear that business representatives visit several sites with software at the same time, which indicates an active study of the market and the identification of advantages and disadvantages of each software solution. The large number of reviews from software users (according to G2) indicates that many companies do not need the services of an accountant when using these software and services. It can be concluded that the use of these platforms and online services does not fully meet the needs of accountants and managers. That's why they are constantly looking for more advanced software that could automate business processes comprehensively. The main problem with the use of this software is that it is frequently not adapted to

the taxation peculiarities of a particular country or region. For instance, many countries do not use these products at all because they are not adapted to domestic needs. Instead, the market has its own domestic software leaders. A striking example is the use of information technologies in accounting and analysis in modern companies across the Commonwealth of Independent States (CIS). The companies use integrated middle-level accounting systems from 1C: Enterprise and 1C: Accounting, the Russian developer, which adapted its software to each CIS country, taking into account the national peculiarities of taxation and business processes [12].

Let's consider the most popular software products for financial analysis in Table.2.

**Table 2:** The most popular software products for financial analysis in medium-sized and large enterprises in 2020\*

Software	Description and characteristics	Advantages and disadvantages
Oracle Essbase (oracle.com)	Rapid development of complex calculations, determination of business efficiency; adjusts to business tasks with modeling of complex business scenarios in a short time.	Advantages: Excellent integration with MS Office. Reporting tools can meet a variety of user needs to obtain information about the current state of the company. Easy and intuitive understanding of the interface.
Jirav (jirav.com)	Innovative product in business planning. Allows to develop a budget, forecast and make reports for companies with a staff of 5 to 500 employees.	Advantages: Easy to set up and use. Ability to use a free trial for 14 days. Convenient intuitive interface. Able to connect to NetSuite, Intacct, QuickBooks and Xero. Disadvantages: Limited number of visualizations, works very slowly.
Fathom (fathomhq.com)	It is a toolkit designed to generate management reporting, financial analysis, assess business performance, track trends and identify opportunities for improvement.	Advantages: High quality assessment of profitability, cash flow, growth and other key performance indicators (KPIs). Creation and analysis of own KPIs. The ideal service for creating monthly, quarterly and annual reports. Ability to merge up to 200 companies. Disadvantages: There is no possibility to obtain non-financial information. Difficult to create your own formulas.
Limelight (limelightanalytics.com)	Service for medium businesses. Automates manual information processing, collects and consolidates data for fast reporting.	Advantages: The simplest software for financial reporting. The best service for budgeting. The best service for financial reporting. Reasonable cost Disadvantages: Difficult work with building templates.
PayPie (paypie.bb)	A set of effective tools for forecasting and assessing risks.	Advantages: Easy integration with QuickBooks and Sage online, which simplifies the administration of all cash flows. Accuracy of forecasts for making sound financial decisions. Disadvantages: Few opportunities to interact with financial partners. The complex process of the first setup.
Business Radar (businessradar.com)	Financial reporting and forecasting service for corporate management.	Advantages: The most simple and intuitive service for creating reports. Disadvantages: Sometimes it is quite difficult to connect to the service. Long service integration time, the need to contact technical support constantly.
Qvinci (qvinci.com)	A powerful additional tool for reporting. Displays all gains, losses and balance sheets, consolidated and parallel reporting is possible.	Disadvantages: Poor technical support. It differs little from SpeedBooks except speed. Opportunity for financial users at the unit level to sabotage the comparison of financial indicators in the group.
Checkmy Books (checkmybooks.co.uk)	Service for automatic verification of customer accounting records. Analyzes each transaction and identifies problems to consider. It is possible to detail individual accounts and transactions.	Advantages: Perfect service for tracking accounting records. Disadvantages: No trial version.
Financial Statement Analysis (appforfinance.com)	A service designed for companies that use IFRS and GAAP accounting standards for in-depth assessment of business performance.	Advantages: Provides a professional level of analysis of financial issues. Ability to use different software options and transfer unnecessary functions from the main to the additional field of work. Disadvantages: The additional panel is not configured well enough, some parameters are not available.
Flexi (flexi.com)	Mobile Financial Management Service for large corporate organizations. Implementation will help to effectively manage complex accounting transactions. It can be deployed locally, in a cloud service, or in a hybrid environment.	Advantages: Manual entry of information is excluded (error minimization). Possibility of continuous closing, which saves time for preparing the analysis of financial information before the closing date (month, quarter, year). Ability to manage finances simultaneously for multiple companies. Accessing real-time data to make more sound decisions. Disadvantages: Designed for large companies in certain industries, so may not be useful for small companies. There are no integrated payroll management functions.

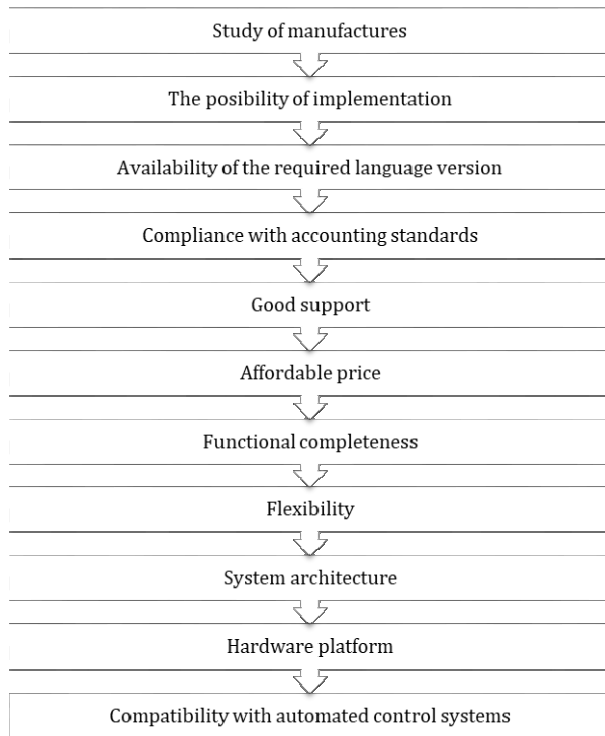
\*Note: collected by the authors based on the official websites of developers

This software is developed for large enterprises that require constant monitoring of their activities. Most of these programs are independent ones making it impossible to integrate with accounting software, which can complicate management processes. At the same time,

many services allow automated reporting for managers based on the results of activities, taking into account the peculiarities of each business.

When choosing information technology, the company encounters a number of difficulties associated with their

implementation. In order to find the right software, it's necessary to use the algorithm that will help making a correct decision.



**Fig. 4.** Algorithm helping select necessary software products for accounting and analysis\*

\*Note: author's suggestion

1. the study of product manufacturers. It's necessary to track information about the reputation of the manufacturer, study the information system and get acquainted with the impressions of users of this system. It's a perfect fit, if the information is posted on forums and open information resources, where users have the opportunity to ask questions and get prompt answers.

2. the possibility of implementing the selected system at enterprises of a particular industry. Most of the developed products are universal for all industries, but this only applies to the operations that take place in each enterprise. However, practice shows that almost every business has its own unique processes that require not a universal but an individual approach to their support. Thus, it's necessary to determine whether it's possible to adapt existing software to the needs of the enterprise.

3. application of the required language version. The implementation of the system is possible if there is an appropriate language version, including not only the translation of the main functions, but also the basic documentation that covers the regulatory requirements of each country.

4. quality of implementing accounting and analysis standards. The system must support not only language but also legal, accounting and reporting standards and have update systems that are applied after legislative changes occur.

5. availability of a qualified team. It must be able to serve system users within a particular country, which is a particularly important factor, since not all software users know foreign languages.

6. the price of using information technologies. When deciding on the implementation of a software product, it's necessary to explore the profitability and payback of the implementation of this system. Complete information should be obtained about the total cost of the software product and the costs associated with its operation.

7. functional completeness of the system. It's necessary to be able to purchase modules, which are needed to support the company for several years until the innovative processes in production are implemented.

8. flexibility of the system. As such services are used by business for several years, they must be sufficiently flexible to changes in accounting and tax legislation, as well as to changes in the organizational and production structure of the enterprise.

9. system architecture. It must meet the needs of the enterprise, taking into account the ability to store data, update applications and communicate with customers.

10. hardware platform. It must be independent of the use of operating systems or browsers, i.e. it must run on any computer, which will prevent the inconvenience of accounting and analysis associated with the implementation of software at all levels.

11. compatibility of economic information system with automated control systems and technological processes. The software must be compatible with the software solutions used in the enterprise.

The construction of information technologies for accounting and analysis in modern companies must take into account all the above aspects to overcome the following problems:

- management's understanding of the need to implement information technologies;
- awareness that the information system is a management system, not just an accounting system;
- the information system must meet the management standards of developed countries.

These systems must have extensive experience of successful implementation in other countries and a set of industry solutions. Modern corporate governance cannot do without new information technologies and the main prerequisite for success should be the highest possible integration of various information systems, aimed at helping the top management to ensure the effective

operation of the company. It's not always possible to find information systems that meet all the aforementioned requirements. That's why modern companies order business process automation systems for their own needs. This is the most effective method of using information technology but the costs are usually high. The development of individual information technologies can often take more than ten years. To assess the feasibility of such investments, one must first make a clear estimate of the development of such software and compare the costs with future benefits, which may be determined by reduced labor costs, increased productivity, improved business activity, reduced losses of inventories, goods and raw materials, the use of rational methods of financial management, etc.

## 5. Discussion

The use of modern information technologies for accounting and analysis has developed rapidly due to the intensification of global business processes. This has led to a growing interest of scientists trying to prove the importance of automation for business and its impact on the efficiency of companies. The evolution of digital technologies in the area of accounting and analysis has begun to develop rapidly since the 1990s. Rindasu and Hood believe that nowadays this evolution has turned into a new format with the use of the advanced technologies of computer platforms, cloud services and Big Data [3; 4]. Leading accounting organizations such as ACCA and ICAEW believe the use of cloud and mobile technologies, as well as Big Data will significantly improve the level of labour automation for accountants and financial analysts [13]. However, despite this, not so many companies switch to the new technologies, remaining dedicated consumers of traditional software products that have been used for decades. In particular, according to Shayan et al., Johns, Joshi et al., Hawker, the use of cloud services or new advanced technologies is not always convenient for consumers [14; 5; 15; 16]. Despite the willingness of entrepreneurs working in small and medium-sized businesses to spend money on the latest solutions, accounting professionals are not ready for technological change [17]. Besides, there are certain risks associated with financial security, excessive resource value and a long period of transition to new technologies. Migration from the existing platforms to the new ones requires staff retraining, which entails time and resources that are not always appropriate for small and medium-sized businesses. Despite the progressive development of these technologies, according to Huisache, there is still a demand for accounting and analysing programs adapted for small businesses that can work with any device [1]. This is especially true for the companies which have a limited

number of transactions and need only to record the crediting of funds from their customers and transfer shipment data [6]. In this case, the use of cloud services or systems based on Big Data is impractical. Instead, it makes sense to use microservices that are adapted not only for desktop computers but for mobile devices as well.

## 6. Conclusions

The research of activity of enterprises in the world markets shows that the development and implementation of modern information systems for accounting and analysis represent one of the possible ways to improve the management of a modern company.

Based on the analysis of the world practice of using information technologies of accounting and analysis in modern companies, three classes of information systems are distinguished: local, medium and global or large integrated systems.

The study analyzes local solutions and medium-sized integrated systems that are most popular among small and medium-sized businesses in various countries. These are usually online platforms allowing to use their own solutions to solve accounting problems and meet analysis goals. There are a large number of services that use cloud services or their servers to store data. The rest of the services are software shells that are installed on computers and use the technical capabilities of the enterprise. The main common feature of this software is its versatility, as well as the use of different modules for different business purposes. It should be noted that many businessmen are dissatisfied with the use of such systems, that is proved by constant search for new services and programs to improve accounting and analytical processes. Therefore, they are constantly looking for new ones that could be successfully integrated into the existing business model. As for the analysis software, in many small businesses, it is either not used or used when it is too late, i.e. already after generating losses. Most popular software products are online platforms allowing to quickly prepare reports on the results of the enterprise's performance.

Development of the information sector of the developed countries' economy and the experience of European countries in creating their own information structures should become prominent guidelines for solving the challenges facing modern businesses in the period of business process automation.

Given the practices of implementing information technologies in enterprises, some patterns should be identified. In particular, for many enterprises, the main problem with the use of universal software is the excess of data, while companies with atypical businesses lack the technology to solve basic problems. The practical value of this research is related to the attempt to cope with the



existing problems. For this reason, an algorithm to find the necessary software product is introduced along with the list of programs for accounting and analysis that satisfied the customers to the fullest extent.

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