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INFORMATION TECHNOLOGIES OF BUSINESS ANALYSIS IN THE MANAGEMENT AND DESIGN OF ACTIVITIES OF UKRAINIAN COMPANIES

The article analyzes the effectiveness and promising possibilities of using information technologies in the management and design of the activities of Ukrainian companies. It was established that the main task of business analysis is the collection and substantiation of information for making business decisions with the aim of improving management and project activities. Concretely, business analytics is considered as a process of gathering and forming an information base of indicators by using methods of information gathering and processing, risk assessment, modeling and forecasting. The types of software that will allow automating the management and project process of the company by forming an information database are detailed. It has been proven that Ukrainian companies have a significant gap in analytical activities, because in Ukraine, the profession classifier does not provide for the position of business analysts and their certification procedure. Accordingly, the perspective of the formation of business analytical data is the use of information technologies with software that automates the process of processing information and improving the management and project activities of Ukrainian companies.

Keywords: business analysis, information technologies, analytical support, design and management activities.

Надія КОВАЛЕНКО

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ІНФОРМАЦІЙНІ ТЕХНОЛОГІЇ БІЗНЕС-АНАЛІЗУ В УПРАВЛІННІ ТА ПРОЕКТУВАННІ ДІЯЛЬНОСТІ КОМПАНІЙ УКРАЇНИ

У статті досліджено, інформаційні технології бізнес-аналізу в управлінні та проектуванні діяльності компаній України. Визначено, що управління та проектування бізнесу неможливе без ретельного проведення аналізу показників діяльності підприємства. Встановлено, що інформаційні технології мають суттєвий прорив у розробці програмного забезпечення, як зможе стати основою у зборі та аналізі показників діяльності підприємства, оскільки розглядати проблематику бізнес-аналізу не можливо без розуміння поняття бізнесу і розуміння інформаційних технологій. Отже, головною метою бізнес-аналізу є надання консультативних послуг бізнесу для подальшого його розвитку внаслідок проведеного аналізу, що не є можливим без використання сучасних інформаційних технологій. Конкретизовано, що практика бізнес-аналітики в Україні має суттєві прогалини, адже на підприємствах України не передбачена наявність фахівця з бізнес-аналітики в управлінні та проектуванні діяльності підприємства. Визначено, що однією із проблем українських підприємств є відсутність системного підходу та інтеграції бізнес-аналізу та використання його результатів як основи в управлінні та проектуванні діяльності. Розглянуто основні напрями використання ІТ для сучасних методів бізнес-аналізу, вирішення яких дозволяє визначити перспективні напрями в галузі застосування інформаційних технологій у процесі забезпечення підвищення ефективності функціонування системи управління бізнесом. Проаналізовано сучасне програмне забезпечення, що використовується у бізнес-аналізі: Qlik Sense, QlikView, Naumen Service Desk, Microsoft Power BI, Roostat, GetReport, PlanFact, Seepeso. Практикою доведено, що впровадження інформаційних технологій бізнес-аналізу дозволить вдосконалити управлінську та проектну діяльність компаній України. Обґрунтовано ефективність використання інформаційних технологій бізнес-аналізу на різних етапах управлінської та проектної діяльності компанії з використанням світового досвіду.

Ключові слова: бізнес-аналіз, інформаційні технології, аналітичний супровід, діяльність з управління проектами.

Introduction

In the conditions of the transition of the classical economy to the digital one, the main manifestations, which is informatization, globalization, use IT, analysis of economic and business processes using modern achievements of knowledge, will make it possible to increase efficiency economic processes, and to withdraw the economy to a qualitatively new scientific level. In modern, the world cannot imagine the development of the economy of enterprises without using the results of business analysis and quick implementation of them in real projects. The use of analytical calculations becomes everything more necessary.

Analysis of research and publications

The study of scientific works of such domestic and foreign scientists, such as Ankit Kumar [1], Clyde Holsapple, Anita Lee-Post, Ram Pakath [2], Ghafijak A.M. [3], Giles Hindle, Martin Kunc, Michael Mortensen, Asil Oztekin, Richard Vidgen [4] and others show that the object of research is certain aspects business analysis frameworks and technologies, but no provide a complete picture of the possible tools to ensure the main stages of implementation business analysis for the purpose of managing and designing the company's activities.

The main purpose of the article is to research information technologies of business analysis in the management and project activities of Ukrainian companies.

Presentation of the main research material

The crisis state of the economy of Ukraine requires development and implementation of appropriate project management tools in war conditions and post-war reconstruction of Ukraine. During this period, «companies need to implement new approaches to managing immune mechanisms that support sustainable development organizations using modern methods, models and innovative technologies with taking into account the turbulent environment» [5]. In the conditions of the transition of the classical economy to the digital one, the main manifestations which is informatization, globalization, use IT, analysis of economic and business processes using modern achievements of knowledge will make it possible to increase efficiency management processes and project activities, as well as to increase the efficiency of the company's activities. In modern the world cannot imagine the development of the economy of enterprises without using the results of business analysis and quick implementation of them in real projects. The use of analytical calculations becomes everything more necessary.

Business intelligence can be considered as a process analysis of information for approval of business solutions, which includes methods of collecting and processing information, risk assessment, modeling and forecasting. In many cases electronic commerce allows you to shorten the path of passage product from the producer to the consumer. This is possible thanks to the use of Internet technologies that provide the possibility of effective direct interaction with the end consumer, therefore the company can fulfill the role traditionally played by intermediary suppliers. It also allows you to accumulate an information base of customers that allows you to perform a perfect business analysis and Marketing researches Identify the current state of development management in the company allows business analysis, which helps solve the following tasks [6]:

- identify the key aspects that need to be paid attention to when managing the company's activities and projects;
- determine the main processes that must be implemented in the company for achieving the next level of profitability;
- to provide more effective project management based on business analysis and improvement of own practice.

The existing information technologies of business analysis differ in the number of levels of management of the activities of the enterprise and its projects, evaluation indicators, however, allow to identify strengths and weaknesses organization for further identification and liquidation problematic aspects delaying the company's transition to the next level of efficiency. The project, as an element of improving enterprise management based on business analysis, is a set of actions, the purpose of which is to achieve a certain unique goal its characteristics and features result, which is carried out in advance a certain period, within the limits of the necessary resources (financial, personnel, material, etc.) [7, 8].

The morphological decomposition of the definition of the essence of project management based on business analysis is presented in table. 1.

Table 1

Morphological decomposition of the definition of the essence of project management based on business analysis

Comparison sign	Structural composition
Constituents	Material and intangible resources of the enterprise
Terms of implementation	Application of knowledge, methods, skills, means and technologies of business analysis
The end result	Meeting the needs, meeting or exaggerating the expectations of participants project, achieving the best results, achieving the set goals in the best way

Source: formed by the author on the basis [8]

Therefore, management of activities and projects based on business analysis is an application knowledge, methods, skills, means and technologies to of the project in terms of available material and not material resources of the enterprise with the purpose achieving the best results of his activity.

The biggest advantage of e-commerce is a significant reduction in costs for the execution of the agreement and its further maintenance. The most famous example of e-commerce is an online store – a web resource with a product catalog and the possibility of ordering and paying for goods. All more companies in the world are implementing elements electronic commerce. In today's complex conditions of fierce competition for the effective distribution of resources the requirements for the competence of entrepreneurs have also increased conditions for ensuring flexibility and error-free work [9, 10].

Business intelligence (Business Intelligence) – software tools operating within the enterprise and providing access functions and analysis of the information contained in the repository data, and also ensure the adoption of correct and justified management decisions [11].

Business analysis in the management and project activities of the company consists of the stages presented in fig. 1.

The main advantages of business projects are as follows name a small amount of investment that is necessary for the implementation of a business project. If the requirements to specialized specialists are growing, the need constant improvement and replenishment of knowledge in the IT sphere is a necessity for a modern specialist. A business analyst is a specialist who investigates the customer's problem, analyzes it, and offers a solution (system

of decisions). His main task is to identify and analyze the problems of the customer's business, as well as to offer the best way to solve them a solution that is closely related to the use necessary software [13].

Among the requirements for the job of a business analyst is the following name the following [14]:

- knowledge of the methodology of collection, analysis and formalization; knowledge of the subject area;
- software life cycle;
- skill to program, test;
- knowledge of economics, etc.

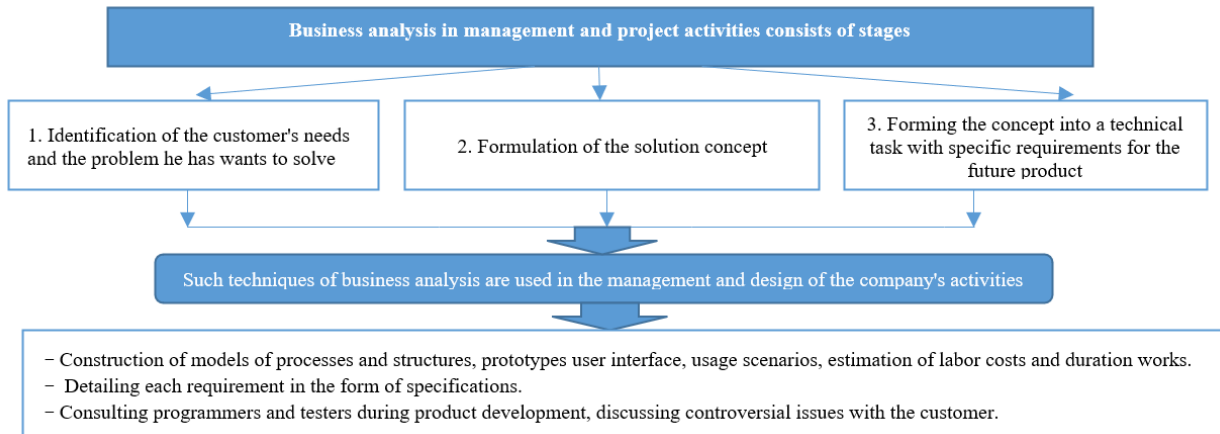


Fig. 1. Business analysis in the management and project activities of the company consists of the stages

Source: formed by the author on the basis [12]

The duties of a business analyst include the following actions: identification of the company's business goals, thinking solution concepts, analysis of the company's business needs, drafting and formalization of requirements for the future project and management of the company's activities.

Modern software products for business analysis [2]:

- Qlik Sense. A visual analytics platform that supports independent visualization and data research. Allows you

to quickly create combine visual representations, explore data deeply, discover relationships instantly and consider

from any perspective;

- QlikView is one of the most interesting solutions for of business intelligence (BI) in the world. The application allows you to conduct a comprehensive analysis of various stages of the sales process and evaluate the effectiveness of interaction with each client. The solution includes tools to analyze the client base, potential data transactions, accepted orders, their payment and execution, including structural data analysis arbitrary period, dynamics and seasonality of change indicators over time, as well as assortment, ranking ABC-XYZ and Pareto analysis in all kinds analytical sections. The program provides a clear vision work efficiency, providing flexibility and high speed of reaction to changes, thereby increasing the overall transparency of business management. The new technology allows for a very short time term to build even the most complex models for analysis, without much effort to form according to them reporting and keeping them up to date;

- Naumen Service Desk allows you to significantly improve the manageability of IT department employees, as well as to keep transparent records of labor costs at all levels. Universal planning modules provide mechanisms for end-to-end accounting of all activities and assets within the operational and project departments activities and performance-related activities regulatory works;

- Microsoft Power BI. Business analytics tool as part of Office 365. Converts organization data into attractive visual representations with extensive possibilities for assembly and arrangement, allowing concentrate on the most important tasks;

- Roistat. End-to-end business analytics system. Collects data from the CRM system, advertising sites and the main site. From these data he generates reports based on key business indicators;

- GetReport. Service for collecting corporate reports. Data collection through web forms. Monitoring data collection in real time. Builder of reports and charts (BI);

- PlanFact. Cloud service for control money in a company with a convenient interface. Helps to plan income and expenses, warns about cash gaps. Integration with banks. Imports/Excel export;

- Seeneco. Cloud service for management business finances, including management accounting, financial analysis and cash planning.

It is impossible to consider the problems of business analysis without understanding concepts of business and understanding of information technologies. So, the main purpose of business analysis is the provision of

business advisory services for its further development as a result of the conducted analysis, which is not possible without use modern information technologies.

Conclusions

Information technologies of business analysis in the management and design of the activities of Ukrainian companies have been studied. It was determined that business management and design is impossible without a thorough analysis of the company's activity indicators. It has been established that information technologies have a significant breakthrough in software development, which can become the basis for the collection and analysis of enterprise activity indicators, since it is impossible to consider the problems of business analysis without understanding the concept of business and understanding information technologies. Therefore, the main purpose of business analysis is to provide business consulting services for its further development as a result of the conducted analysis, which is not possible without the use of modern information technologies. It is specified that the practice of business analytics in Ukraine has significant gaps, because Ukrainian enterprises do not provide for the presence of a specialist in business analytics in the management and design of the enterprise's activities. The main directions of using IT for modern methods of business analysis are considered, the solution of which allows to determine promising directions in the field of application of information technologies in the process of ensuring the improvement of the functioning of the business management system.

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