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## **ORGANIZATIONAL ENGINEERING AS THE BASIS OF DESIGNING OF ORGANISATIONAL BUSINESS PROCESSES**

*In the article it was explored the theoretical problems of organising engineering as the basis of designing of business processes in the management organization in a dynamic market environment. There were summarized the views of business processes of the organization. It was considered the possibility which is based on an engineering approach to carry out business modeling, which allows better control of business processes. It was noted the important contribution of modern concepts, which are the development of organisational engineering, in the management of the organization.*

**Key words:** *engineering, organizational engineering, system engineering, business process, business modeling, process management, reengineering of business processes, business process management, business performance management.*

### **Насікан Н.І., Янченко А.Ю. ОРГАНІЗАЦІЙНИЙ ІНЖИНІРИНГ ЯК ОСНОВА ПРОЕКТУВАННЯ БІЗНЕС-ПРОЦЕСІВ ОРГАНІЗАЦІЇ**

*У статті досліджено теоретичні проблеми організаційного інжинірингу як основи проектування бізнес-процесів у системі управління організацією в умовах динамічного ринкового середовища. Узагальнені погляди на бізнес-процеси організації. Розглянута можливість на основі інжинірингового підходу здійснювати бізнес-моделювання, яке дозволяє більш ефективно управляти бізнес-процесами організації. Відзначено важливий внесок сучасних концепцій, які є розвитком організаційного інжинірингу, в управлінні діяльністю організації.*

**Ключові слова:** *інжиніринг, організаційний інжиніринг, системна інженерія, бізнес-процес, бізнес-моделювання, процесне управління, реінжиніринг бізнес-процесів, управління бізнес-процесами, управління ефективністю бізнесу.*

External environment of modern business is characterized by a high rate of change, which requires new approaches to the management of the organization. Recently, research and practice of management activity are increasingly guided by rational engineering approach to the problems of designing and development of organization. The main feature of this approach is the change of basic principles of organization of the company - not focus on the function, but on business processes. This causes necessity and urgency of researching the theoretical principles of engineering as the basis of organizational design of business processes of the organization.

Solving problems that appeared at the end of the twentieth century (growth of rate of environmental changes, inefficiency of further increasing of the number of employees in response to the complexity of management problems, inadequate, compared to the expected, effect of investment in information technology), required of the development of new approaches to the management of the organization. This led to the appearance of the concept of "process management" or "process-oriented management," which is based on the allocation of business processes in the organization and their management. In general, the concept of "process

management", which is based on the engineering paradigm, focuses on designing and redesigning of business processes to identify redundant or too costly business processes and improve business efficiency [4, p. 65]. Within the concept of "process management" the direction of improvement of business processes (Business process improvement) started to develop. It has become the distribution in practice as the re-engineering of business processes (Business Process Reengineering BPR).

Theoretical and methodological aspects of the development of process management in the organization were highlighted in scientific works W. Greenova, P. Druker, V. Yeliferova, O. Kuzmina, V. Repina, T. Tomali, D. Khan, A. Shubina. It was elaborated the main provisions of the concept of improving business processes in the works of foreign and domestic authors as M. Hammer and James Ciampi, Herbert Smith and P. Finher, M. Robson and F. Ullah, P. Allen, T. Danko, Z. Vorobyova, B. Rapoport, A. Skubchenko, P. Strassman. The significant contribution to the study of engineering approach to building the organization is made also by M. Abdikeyev, I. Balabanov, A. Blinov, T. Lepeyko, O. Maystrenko, P. Maslyanko, T. Mostenska, L. Taranyuk.

For example, B. Rapoport and A. Skubchenko in engineering businesses understand the "system of methods and techniques, which are used to create business and meet internal goals of enterprise" [8, p.55]. I. Balabanov is considering the engineering, "as defined form of exports of services (transfer of knowledge, technology and experience) from the manufacturer to the customer's country" [2, p.46]. In spite of the a certain degree of development of the issues, it is an obvious need for further scientific research towards better understanding of the content of organizational engineering, testing methods for determination of its key aspects - business processes in organizations of various fields and implementing business modeling.

The aim of research is the generalization of theoretical principles of organizational engineering and its using as the basis of designing business process of organization.

In the early stages of its development the classic engineering as an activity was focused on the practical application of knowledge of natural science and had the contact only with the invention. There were created new principles of action, how to implement these principles, the design of technical systems or individual components through inventive activity on the basis of general scientific and technical knowledge. With the development of mass production to the invention went into production, it was necessary to prepare engineering design with a special principle. According to this, engineering extended its boundaries to designing, that of design engineering systems, which consist of related standard items that are produced or produced by industry and are common to all entire class of products. The main principle of engineering at that time was the movement from general to detail.

Today the term "engineering" broadly is used to denote engineering and consulting services, which are separated into an independent activity that is carried out commercially the relevant organizations. In this context, in terms of content, engineering is to prepare and maintenance processes of production and sales, and service processes and operation of infrastructure.

Organizing engineering is called one of the areas of organizational development, which focuses on engineering approaches to organizational issues. Some researchers define the concept of business engineering as the process of designing systems of management organization "from scratch." According to H. Osovskoyi business engineering is aimed at commercial organization on a competitive basis, so it is a set of techniques and methods of implementation processes of the company in accordance with its objectives [7, p.77]. From the standpoint of organizing management the subject of engineering is the processes in organizations, not organizational units that are designed to efficiently implement these business processes to achieve the objectives of the enterprise.

It is expedient to note that there are many interpretations of the category "business processes". For example, some scientists defined business processes as the transaction, which is included in operations, the task of which is the production and delivery of services / goods transactions in the system, and other systems with the aim to emphasize the abstract nature of business

processes and the possibility of mathematical modeling [6, p. 86]. According to L. Taranyuk, a business process is a set of business operations, a number of internal activities, which starts with one or more inputs and ends with creating products required by the client (the client is not necessarily respect of external consumer, it can be its specific unit or worker) [10, p. 166]. According to M. Abdikeyeva, business process is a number of interrelated activities, which transform "inputs" to "outputs" [1, p. 35]. In addition to these two components of a business process, the allocation of which is the basis of the formation mechanism of business process management, it still includes items such as business process owner, consumer (client) process, resource of business process, rules and the model of business process [3, p. 81].

Obviously, all determinations unite, primarily focusing on nature of the business processes that have specific inputs (for example, supply of resources, the emergence of business ideas, the idea of a new product or service) and outputs in a product that meets the needs of consumers. However, the main of their feature of the organization is to create value for internal or external customers. For this criterion can be provided the business processes in the organization. Therefore, understanding the business process as a stable, purposeful set of interrelated kinds of activities, which allows you to turn inputs into outputs that represent value to the consumer, seems the most appropriate.

The organizing engineering based on the concept of "Systems Engineering", underlies the phenomenon of business modeling. In general, business modeling is a multistage process. In its first stage is the construction of the model. For this it is defined its mission as a compromise between the needs of the market, resources and skills to the organization and its expectations, values and principles. Based on the mission it is formed the business potential of the organization, namely a set of types of production (commercial) activities that aimed at meeting the needs of the market. After that it is defined the list of business functions that required to support selected activities and the necessary resources and organizational structure. Thereafter, using the tools such as the matrix of responsibility it is fixed the duties of structural units to implement the described activities and business functions.

The next step of modeling is to build simulation models or designing your own business processes that occur in the organization with the detailing the logic of interaction of participants in these processes. For example, this type of business process as a "service" of organization dedicated to the production sector on functional grounds, includes a detailed description of all after-sales activities that performed for maintenance, repair, restoration and modernization of previously sold products. In general, the formalization and description of business processes allows you to consolidate certain functions not only in specific departments, but also by specific experts, provides the appropriate level of performance and technological disciplines.

At the final stage of engineering business models data banks are formed which set formats and lists of documents and other objects that accompany the processes of the organization [5, p.17].

Business modeling in practice, as a rule, usually is carried and used by business analysts and managers to form a list of required units, making new organizational structures and organizational changes to enhance process efficiency and its quality.

Experience in implementing organizational engineering proved that it is accompanied by a rather large risk. This was the basis for the development of the concept of business process management (Business Process Management - BPM). An integral part of Business Process Management software is its BPMS (Business Process Management System), which enables business analysts by themselves, without involving programmers to make changes in the scheme of the business process. This feature is sometimes a misconception that Business Process Management is a management system of changes of business processes. In practice, it does not manage business processes, but only allows relatively easy to change their schemes.

In recent years, there is another concept that is closely linked to the development of information technology, it is "Business Performance Management» Business Performance Management (BPM). The concept of BPM system, like other concepts, related to information technology can be used in two ways: as a concept and as a management information system (a set of software tools that support the ideology of BPM and ensure its implementation).

The key name in Business Performance Management is the word "performance". Its Ukrainian-language and Russian-language interpretation is not entirely clear. One of the meanings of the word "performance" is «idea", "play", respectively, performance management is a management how the organization looks from the outside. Since there is no accurate translation, in domestic as well as in Russian literature, it has caught on adequate equivalent such as "management of effectiveness" [9, p.90].

The term of Business Performance Management is become the first to apply the known by analyst firm IDC. As synonyms of BPM systems it is often used other things: for example, analyst firm Gartner actively uses the term "Corporate Performance Management" (CPM). Also you can find synonyms such as "Enterprise Performance Management" (EPM) and "Strategic Enterprise Management" (SEM). Sometimes the concept of "Performance Management" is used only in a very narrow sense as management by key performance indicators.

Business Performance Management is defined as "a set of integrated cyclical process management and analysis, and relevant information technology related to both the financial and the operating organization" [9, p.86]. However, this definition has a too generalized sense and does not give a complete picture of the essence of the concept which requires further scientific research.

The important achievement of the concepts which are discussed are principles which are involved in their implementation process approach to business process management organization:

- identification of processes which are required for the organization;
- determining the sequence and relationship of these processes;

- the definition of criteria and methods to ensure the efficient operation and management of these processes;
- measurement, analysis and control of these processes and the implementation of measures, needed to achieve the proposed results and continual improvement of these processes.

Based on these concepts to improve process control and design business processes it is using the methodology of organizational engineering, whereby instead of the widespread view in the management of process management features it is distinguished the typical warehouse of operations management process. The basis of determining the typical operations of management process it is used the fundamental provisions of the general systems theory and the theory of production.

Thus, the important contribution of organizational concepts of engineering and business process management is a new look at the construction of a set of business processes, which allows to implement the principles of engineering to the enterprise through the widespread use of modeling for design and redesign the system of business processes. After analyzing organizational engineering as the basis for designing business processes, it can be noted that introduced the practice the logic of procedures of engineering based on its principles (from general to detailed, multi-variant, modeling) allows a way to identify issues to address it and implementing the results through a consistent flow of plan to model, from the overall understanding of the principles of the model to the detailed design and special payments. Tools of the concepts which are discussed as organizational engineering and business process management are widely used to enhance, design and redesign of business processes in the organization. The composition of typical operations management process makes it possible to set the optimal management methods for each transaction, which is the subject of future researches.

#### **References**

1. Abdykeev N.M, Kysylev A.D. (2010) Upravlenye znanyjamy korporacyy y reynzhynryng byznesa [Knowledge management and business reengineering] Moscow: YNFA-M, 382 p. [in Russian].
2. Balabanov Y.T. (2000) Osnovi fynansovogo menedzhmenta [Fundamentals of Financial Management] Moskow, 201 p. [in Russian].
3. Blynov A.O., Rudakova O.S., Zaharov V.Ja., Zaharov Y.V. (2010) Reynzhynryng byznys-processov [Business Process Reengineering] Moskow, Junyty-dana, 343 p. [in Russian].
4. Kuznecova I.O. (2011) Paradygmy procesnogo pidhodu v menedzhmenti: sutnist' ta protyrichchja [Paradigms of process approach to management: essence and contradictions] Visnyk Hmel'nyc'kogo nacional'nogo universytetu. Ekonomichni nauky, № 2. 64-68 p. [in Ukrainian].
5. Malisheva L. (2006) O processah, procesnom upravlenyy y ne tol'ko [About the processes, process management, and not only] // Upravlenye kompaney, № 4. 16-20 p. [in Russian].

6. Nyzhnyk V. M., Polinkevych O. M. (2013) Reguljuvannja priorytetnosti interesiv pry vybori mehanizmu adaptacii' biznes-procesiv pidpryjemstva do novoi' ekonomiky [Adjusting the priority of interests when choosing the mechanism of adaptation of business processes to the new economy] // Aktual'ni problemy ekonomiky, № 6 (144), 86-95 p. [in Ukrainian].

7. Osovs'ka G.V., Maslovs'ka L.C., Osovs'kyj O.A. (2014) Menedzhment organizacij: pidruchnyk [Organizational Management: textbook] K.: Kondor-Vydavnytstvo, 366 p. [in Ukrainian].

8. Rapoport B.M., Skubchenko A. Y. (2001) Ynzhynering y modelyrovanye byznesa [Engineering and Business Modeling] Moskva, 240 p. [in Russian].

9. Ribec D. V. (2011) Ynzhynering (ynzhenersko-konsul'tacyonnye uslugy) na myrovom rinke [Engineering (engineering services) on the world market] // Rossijskij vneshneekonomicheskyj vestnyk. №8, 84-95 p. [in Russian].

10. Taranjuk L.M. (2014) Strategichna ocinka dijalnosti promyslovyh pidpryjemstv pry reinzhyniringu biznes-procesiv na vyrobnyctvi [Strategic evaluation of industry in the re-engineering of business processes in manufacturing] // Marketyng i menedzhment innovacij. №3, 165-175 p. [in Ukrainian].

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### **NATURE AND TYPES OF ENTERPRISE CRISIS**

*Overview of existing approaches to defining of enterprise crisis and investigation of crisis in terms of the elements that affect it.*

**Keywords:** *crisis management, types of crises, crisis, crisis symptoms, stages of the crisis, the crisis factors.*

#### **Блонський А. О. СУТНІСТЬ ТА ВИДИ КРИЗИ ПІДПРИЄМСТВА**

*Узагальнено існуючі підходи до визначення кризи підприємства та дослідження кризи в розрізі елементів, що впливають на неї.*

**Ключові слова:** *антикризове управління, банкрутство, життєвий цикл підприємства, зовнішнє середовище, криза, кризовий стан, функціонування підприємства.*

Every company from its inception until the liquidation is under the influence of both positive and negative effects of external and internal environment, which may be accompanied by increasing imbalances in its economic activity, reducing solvency, liquidity, loss of competitive position on the market, bankruptcy and more. Analysis of the statistics shows that most of Ukrainian companies is in crisis, more than a third of them are in the latest stages of the crisis and is not viable. However, systemic structural crisis which afflict both individual companies and entire industries and sectors of economy, forced to develop and apply specific management approaches that would be able to provide a timely response to critical processes and ensure the stability of enterprises. From this perspective, an important task for modern managers and administrative staff is the timely detection and identification of the specifics of crisis processes in the company in the current economic conditions, which in turn will help calculate the possible ways to overcome the crisis processes and phenomena.

The critical state of the Ukrainian economy in recent years set top positions problem of formation and development of crisis management both at the state level and at the level of individual companies. In this regard, there is need for a detailed study and research of the concept of "enterprise crisis", the main aspects and causes of the crisis and, on this basis, the development of a special system to prevent a crisis and respond to a crisis in the company.

The mechanism of the crisis at the level of the individual enterprise deals in the works of well-known economists-researchers: I.O. Blank, Z.YE. Shershneva and L.O. Lihonenko, Shtanhret A.M., Kopylyuk A.I.. The authors describe in detail the features of enterprise as a macroeconomic system, the essence and types of crises, the factors that determine the behavior of enterprises, the impact of their activities, the possibility of further development.