

# Business Planning Process Management in an Industrial Enterprise

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## ABSTRACT

In today's economic environment, the company needs to maintain and expand its position in the industry, in this regard, the transition to a process approach to management is one of the most important factors in the successful development of the company. It allows companies to optimize interactions between departments, reduce all types of costs, and thus increase the company's revenues, expand market share and develop investment activities. Industrial enterprises occupy a special place in the Ukrainian economy. Due to the fact that industrial enterprises have a complex structure and many units, and this has a negative impact on their sustainable development. As a result, the problem of transition to a process approach in management is an integral part of the further development of enterprises, which determines the relevance of this article.

**Keywords:** *business process, industry, planning, management, enterprise, industrial enterprise.*

## 1. INTRODUCTION

Business process management of the enterprise implies the use of a process approach, but the main approach to management in industrial enterprises has long been a functional-hierarchical approach. With the increase in the volume of management work, the number of functions required for their performance increased, and, consequently, the number of units that implement them. In this regard, there was a narrowing of specialization, which led to the separation of functional units and the weakening of interfunctional ties. Each functional unit began to optimize activities in its area of responsibility. This led to the replacement of the strategic goal of the company by the target functions of units and began to slow down their development.

## 2. RESEARCH METHODOLOGY

The founder of the process approach to management is called Henri Fayol. However, his approach differed from the modern one. He presented the main elements of management as processes (functions), while considering them as independent of each other, and not focused on managing business processes of the enterprise. The process approach became widespread only at the end of the XX century, when the functional approach completely lost its progressive significance. The fundamental difference between the process approach and the functional

one is that the main attention of management is not focused on vertical connections (hierarchical), but on the connection between functional units, which are the weakest and pose a real threat to sustainable enterprise development. In production practice, the process approach has been widely used since 2000, when the revision of ISO 9000 series standards proposed a completely new ideology of quality assurance, and the basis for the construction and operation of a quality management system was a process approach. When revising the DSTU ISO 9001 standard in 2015, the concept of the process approach remained the basis for the organization of the quality management system. The advantage of the process approach is the continuity of management, which it provides at the junction of individual processes within their system, as well as their combination and interaction [1, 2, 3]. The essence of the process approach is that each company should be managed as a system of interacting and interconnected business processes. Table 1 shows the definition of "business process", which is found in the works of domestic and foreign authors. The analysis of historical preconditions allowed us to conclude that in modern conditions, companies need to structure business processes and find ways to optimize them.

## 3. PRESENTATION OF THE MAIN MATERIAL

Having studied the above definitions, we can conclude that they are all based on the same understanding

of the process as an activity, thus, we can give the following definition: business process - a system of interrelated activities (works, actions, business functions) according to a clearly defined algorithm [4, 5] transforms

the resources of the enterprise to meet the needs of internal or external customers.

**Table 1.** Definition of the term "business process"

Author	Definition of "business process"
Repin V.V.	- is a stable, purposeful set of interconnected activities, which according to a certain technology transforms inputs into outputs that represent value for the consumer (customer).
Andersen B.	- is a chain of logically related, repetitive actions, as a result of which the resources of the enterprise are used to process the object (physically or virtually) in order to achieve certain measurable results or products to satisfy internal or external consumers.
Kulyab D.S.	- is defined as a logically complete set of interconnected and interacting activities that support the activities of the organization and implement its policies aimed at achieving the goals.
Eichmann E.G.	- is a set of internal activities of the company, ending with the creation of products or services needed by the consumer.
Samuilov K.E.	- is defined as a logically complete chain of interconnected and interacting renewable activities (actions, business functions, works), as a result of which the company's resources are used to process the object (physically or virtually) in order to achieve certain measurable results or create products for satisfaction of internal or external consumers (customers).
Hammer M.	- is an organized set of interrelated actions, which together give a valuable result for the client.
Kabir N.	- is a series of specific measurable tasks performed by people and systems that are aimed at achieving a predetermined result.
Sorokin A.V.	- a stable, purposeful set of interconnected activities, which according to a certain technology converts inputs into outputs that are of value to the consumer.

Source: compiled by the author based on sources [6-13].

The business process has an owner, a supplier, inputs and outputs, and performers. The following is a definition of the components of the business process [14, 15]:

— output of the business process - the result of achieving the goal of the business process, in obtaining at the output of some result that meets the specified requirements;

— business process owner - a responsible person who carries out activities to achieve the goal and is empowered to dispose of the resources necessary to carry out the process;

— executors of the business process - a team of specialists from different functional areas (cross-functional team), performing the actions of the process;

— inputs of the business process - resources (material, information) required to perform and achieve the goal of the process, which are consumed or converted during the process;

— consumer of the business process - an entity that uses the output of the business process;

— business process provider - an entity that provides business process inputs.

The next step in studying the business process is to divide them into types and further structuring. Most authors combine business processes into three groups:

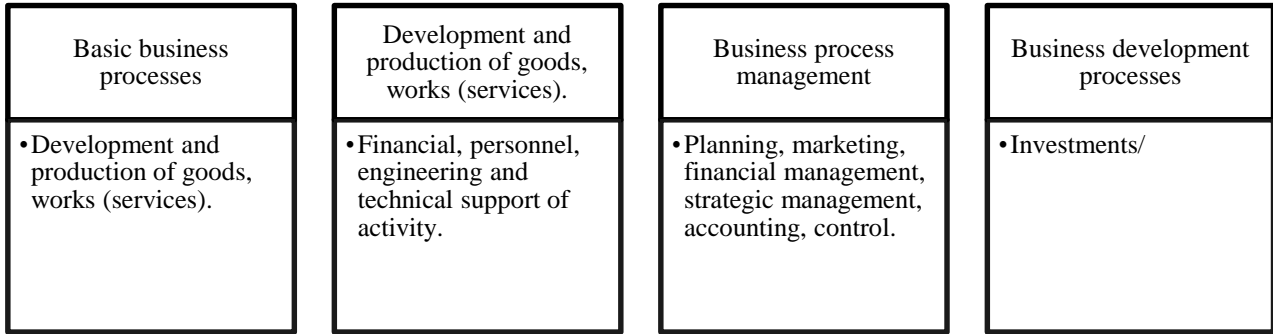
— the first group is the main business processes. They generate the company's revenue and include processes that create a product that represents economic value to the external customer, the direct purpose of which is to generate revenue. A distinctive feature of these processes is that they are directly involved in the implementation of business lines of companies;

— the second group is security business processes, their purpose is to maintain the company's infrastructure in the proper form. The clients of this group of processes are divisions and employees of the enterprise who turn out to be internal clients. An example of a business support process can be the process of administrative and economic support. As the organization exists, a decision may be made to make the by-product the main one. In this case, the security process becomes the main one. There are also advantages of outsourcing the auxiliary business process, if in the external environment of the company there are other companies that perform this business process better and at a more attractive price;

— the third group is business management processes. They directly manage the company's activities. Business management processes do not carry values for the external consumer as well as security. They are important directly for the management of the organization, as they directly affect its competitiveness and development.

Also, some authors distinguish in a separate, fourth group, business development processes, which include investment activities and aimed at introducing new technologies.

Based on the above classification, you can make a scheme that will clearly demonstrate the species (Figure 1).



Source: compiled by the author

Figure 1 Scheme of classification of business processes

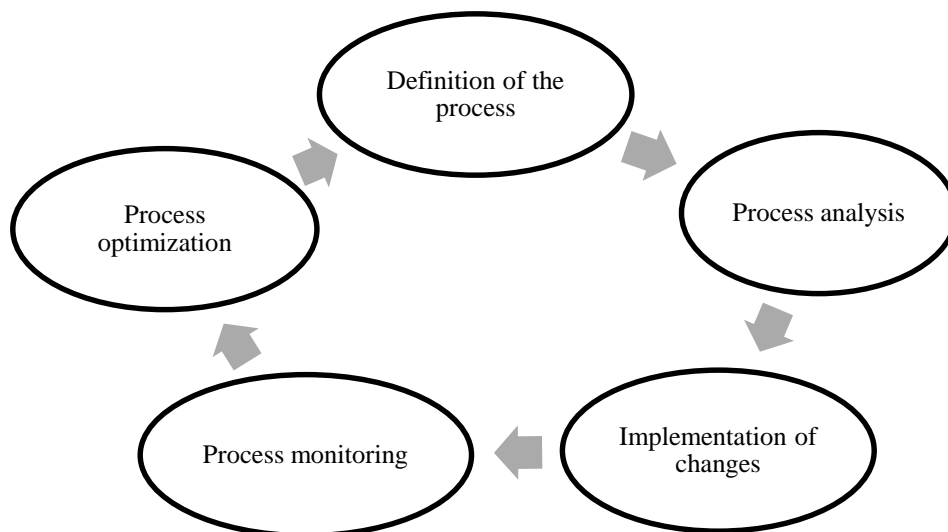
Analysis of the classification of the business process allows you to determine the affiliation of the business process to one of the groups. This allows you to assess its significance for the organization and identify further ways to work on it. Thus, business process planning is a management process that has an internal consumer output of the business process. To work on a business process, it is also necessary to use the algorithm of management and influence on it. This algorithm includes five stages:

- the first stage is to define the business process. Due to the above classification it is possible to do so;
- the second stage is its analysis. The analysis is performed depending on which group the process belongs to. Its significance for external and internal consumers

is determined, there are ways to improve, simulation is performed; the third stage includes the implementation of the accepted ways of improvement, when work is carried out to implement transformational changes in the business process;

- the fourth stage includes monitoring and consists of periodic control of business process indicators that reflect the quality of changes;
- the fifth stage is process optimization. This is the final stage in which the obtained results are compared with the desired (reference) model.

Since the above actions are cyclical, they can be represented in the form of a diagram (Figure 2).



Source: compiled by the author

Figure 2 Business process management cycle

To improve the business process it is necessary to determine the method of its improvement. There are five main methods used in improving business processes:

- method of rapid analysis (FAST);
- benchmarking process;
- reverse engineering (redesign) - description and redesign of existing business processes;
- direct engineering - designing a business process "from scratch";
- reengineering.

Planning is the development and adjustment of a plan that takes into account the prediction, justification, specification and description of the activities of the economic object in the short and long term [16]. This is an ongoing process of setting goals and ways to achieve them, as well as assessing the potential impact of decisions on the final results of the organization. It organizes the basis for the correct, coordinated work of all divisions of the company. Planning at the enterprise is based on certain principles, such as continuity, participation, complexity, efficiency, a single scientific approach to substantiation of planned indicators, etc., which determine the nature and content of planned activities at the enterprise, ensure uniformity of requirements for development of plans. Adherence to the principles of planning creates the preconditions for the successful operation and development of the enterprise. The concept of planning the activities of the organization has two meanings. The first is general economic, from the point of view of the general theory of the organization, its nature. The second - specific management. In this case, planning is seen as a function of management, as the ability to predict the future of the organization and use this prediction. The possibility of planning a specific type of activity follows from the nature of the economic essence of the organization and is determined by the general conditions of management [16].

**4. RESULTS OF THE RESEARCH**

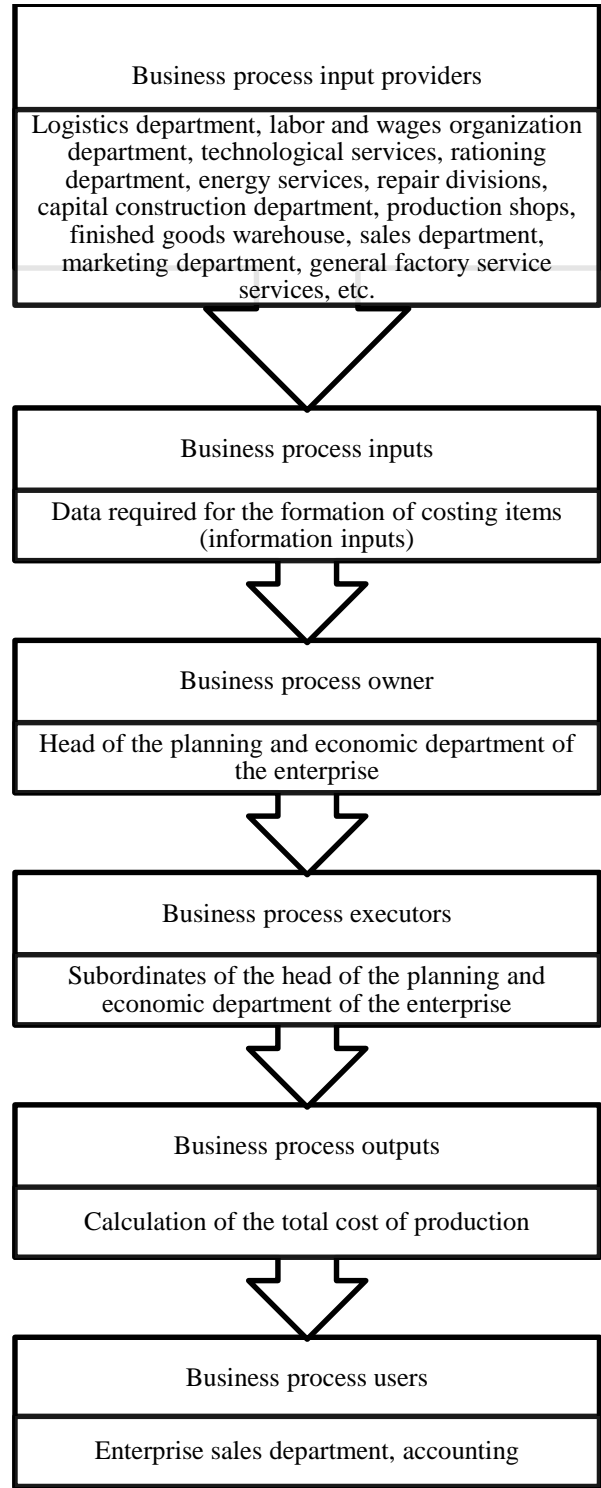
Thus, we can conclude that planning is one of the management functions of the organization.

Next, consider the scheme of the business process on the example of the process of calculating the cost of production of an industrial enterprise (Figure 3).

**5. CONCLUSIONS**

Thus, in a market economy, in a competitive environment, the analysis of the business planning process in the enterprise allows you to identify bottlenecks in the business process, which, in turn, allows you to eliminate them in a timely manner. Based on this, the transition to a process approach to enterprise management is a necessary component of enterprise development strategy, as further

sustainable development of the enterprise with a functional-hierarchical approach to management is not possible and it reduces the competitiveness of the enterprise.



*Source: compiled by the author*

**Figure 3** Scheme of business calculation process

**REFERENCES**

- [1] Morshchenok, T. S. (2014), "Theoretical aspects of management of business processes in the context of realization of strategy of development of the enterprise", *Biznes Inform*, no. 11, pp. 295-302.
- [2] Semenyuk, E.P. Kotlyarevsky, Ya.V. Kniaziev, S.I. and Melnikov, O.V. (2017), "Information Economy: the Formation of Special-Purpose Categorical Framework", *Sci. Innov.*, vol. 13, no. 3, pp. 5-19, DOI: 10.15407/scine13.03.005.
- [3] Korystin, O.Ye. (2020), Chapter 4. State Legal Police of Scientific Prediction. Public administration in the digital economy, monograph, Tallinn, Scientific Center of Innovative Researches OU, DOI: 10.36690 PADE
- [4] Pijush Dutta, Madhurima Majumder and Asok Kumar (2021), "An Improved Grey Wolf Optimization Algorithm for Liquid flow Control System", *International Journal of Engineering and Manufacturing*, vol. 11, no. 4, pp. 10-21, DOI: 10.5815/ijem.2021.04.02
- [5] Lang Fenghao, Sun Yun, Su Jun and Song Wenguang (2021), "A Node Localization Algorithm based on Woa-Bp Optimization", *International Journal of Wireless and Microwave Technologies*, vol. 11, no. 3, pp. 30-39, DOI: 10.5815/ijwmt.2021.03.05
- [6] Repin, V.V. (2013), *Protsessnyy podkhod k upravleniyu. Modelirovaniye biznes-protsessov* [Process approach to management. Business process modeling], Moskva: Mann, Ivanov i Ferber, Rossiya.
- [7] Andersen B'yorn (2003), *Biznes-protsessy. Instrumenty sovershenstvovaniya* [Business processes. Improvement tools], per. s angl. S.V.Arinicheva, nauch. red. YU. P. Adler, Moskva: RIA «Standarty i kachestvo», Rossiya.
- [8] Lipysh, L.H., and Yushchyshyna, L.O. (2010), "Business processes and their information support", *Aktualni problemy ekonomiky*, vol. 10, pp. 202-206.
- [9] Andrushkiv, B. M. and Melnyk, L.M. (2015), "Formation of system of business processes of the enterprise in the context of sustainable development", *Teoretychni i prykladni aspekty ekonomiky ta intelektualnoi vlasnosti*, vol. 2 (12), pp. 91-97.
- [10] Kuzmynchuk, N.V. (2014), "Controlling in the management of industrial enterprise: a conceptual framework", *Visnyk ekonomiky transportu i promyslovosti*, vol. 46, pp. 281-286.
- [11] Khammer, M. (1997), *Reinzhiniring korporatsii: manifest revolyutsii v biznese* [Corporate reengineering: a manifesto for a business revolution], per. s angl. Sankt-Peterburg: Izd-vo S.-Peterb. un-ta, Rossiya.
- [12] Frolova, L.V. (2012) "Algorithm for diagnosing business processes in the context of crisis management of the enterprise". *Visnyk Donets'koho universytetu ekonomiky ta prava*, vol. 1, pp. 84-87.
- [13] Mikhieienko, K.S. (2013), "The management of business processes of the enterprise based on balanced scorecard". *Innovatsiina ekonomika*, vol. 6 (44), pp. 74-76.
- [14] Mateusz Wibig (2013), "Dynamic Programming and Genetic Algorithm for Business Processes Optimisation", *International Journal of Intelligent Systems and Applications (IJISA)*, vol. 5, no. 1, pp. 44-51, DOI: 10.5815/ijisa.2013.01.04
- [15] Oleg Pursky and Dmytro Mazoha (2018), "Architecture Model of Integrated Web-based E-trading Business Process Management System", *International Journal of Information Engineering and Electronic Business*, vol. 10, no. 2, pp. 1-8, DOI: 10.5815/ijieeb.2018.02.01
- [16] Leshchuk, V.P., Polinkevych, O. M., and Ishchuk, L. I. (2015), "Strategy management business process engineering enterprise through re-engineering and redesign", *Ekonomichnyi chasopys-XXI*, vol. 1-2 (1), pp. 52-56.