

**FEATURES AND IMPORTANCE  
OF BUSINESS PROCESSES IN  
ENERGY-PRODUCING ORGANIZATIONS**

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**Abstract.** The article is devoted to the features and importance of business processes in energy-producing organizations. In the context of globalization and sustainable development, effective business process management is becoming a key factor in competitiveness. The article analyzes the main types of business processes in the energy sector, including production, distribution and service processes. Optimization methods such as automation and the introduction of innovative technologies that contribute to efficiency and cost reduction are considered. In addition, the importance of integrating sustainable practices and compliance with environmental standards is emphasized. In conclusion, the authors note that effective business processes are the basis for achieving strategic goals and sustainable development of energy-producing organizations.

**Key words.** business, processes, energy-producing, organization, technologies

**Introduction.** The degree of knowledge of the topic. For many decades in manufacturing, people have been thinking in terms of "production processes and systems." In the 1980s, the theory of processes was created, thanks to the extension of the concept of "process" to the entire activity of the enterprise. Initially, the activities of most managers were not focused on the process, but focused on goals, projects, technologies, tasks, people, etc.

Process theory uses a systematic approach to improve the efficiency of company processes and respond more quickly to changes. This approach dates back to the beginning of the 20th century and F. W. Taylor's "Principles of Scientific Management", which prompted enterprises to use a more scientific method of work [1].

Interest in business processes was also intensified by the global implementation of the fundamentals of quality management [2], one of the principles of which is the principle of implementing a process approach.

Currently, business processes act as the "foundation" of the economic system of the enterprise [3]. Timely identification and description of business processes, as well as assessment of their effectiveness, make it possible to identify problematic processes and effective strategic levers for management. Business process planning makes corporate governance more efficiency-oriented [4].

The issues of the organization of business processes and their management in this and subsequent period were devoted to the research of J. Harrington, B. Andersen, M. Hammer and J. Champy, M. Porter, T. Davenport, E. Deming, A. I. Gromov, A. Fleischmann, V. Schmidt and other scientists.

The concept of "process" presupposes the long-term nature and stages of implementation of the activity [5].

According to Y. P. Adler, five stakeholder groups interact with any organization: "bosses", "consumers", "suppliers", "society" and "we", i.e. all those who work in this organization [6]. Each of the stakeholders generates its own processes; at the same time, the processes generated by consumers, the author suggests calling business processes.

In some cases, a business process (hereinafter referred to as BP) is considered as a purposeful sequence of operations (works) leading to a given end result - the output of the process [7].

The following definition is most often used: BP is a set of repeatable actions or procedures through which resources and information are transformed into a final product according to established rules to obtain an economic result [8].

**Materials and methods of research.** The theoretical and methodological basis of the project was made up of materials and works by foreign and domestic scientists in the field of management, business process management, and theoretical provisions developed on their basis. The article is based on a general scientific methodology involving the use of general methods of cognition (comparison and analogy, analysis and synthesis, induction and deduction), as well as the use of expert methods of analysis. The research tools were general scientific, analytical and predictive research methods.

**The results of the study.** Currently, foreign and domestic researchers have proposed many options for defining a "business process" (Table 1).

Table 1 – Interpretations of the concept of "business process"

№	Author	Definition
1	B. Andersen	A certain logical sequence of interrelated actions that transform input into result or output [9]
2	M. Porter, V. Miller	The "essence" defined through the entry and exit points of organizational devices in which the cost of the service is increased [10]
3	M. Hammer and D. Champy	a set of activities that convert several types of input characteristics into an output of value to the consumer" [19]
4	J. Harrington	"a set of works specifically ordered in time and space, with an indication of the beginning and end and an accurate definition of inputs and outputs" [12].
5	N. V. Tretyakova	a regularly recurring sequence of interrelated activities (operations, procedures, actions), during which the resources of the external environment are used, value is created for the consumer and the result is given to him [13].
6	M. Robson, F. Ullah	a closed system process representing a work flow [1]
7	V.G. Eliforov	a set of works aimed at obtaining a reproducible, repeatable result that has value for the client [15].
8	Yu.P. Aniskin	a set of interrelated activities aimed at creating a specific product or service for consumers [16]
Compiled by the author using sources [9-16]		

Based on the above definitions, it can be concluded that the concepts of "business process"

proposed by the researchers assume that all managerial actions within the managed system are considered as the BP itself, that is, the BP are the key management processes [25].

When identifying key processes, the following approaches can be used:

- value-oriented - focuses management on improving processes that add the greatest value to products from the consumer's point of view (V. V. Repin et al.) [17];
- profitable - based on the idea of high profitability and the largest share in the profit of the organization of key processes (B. Andersen, E. G. Oichman, etc.) [9];
- priority - implies recognition, on the one hand, of the special importance of the process for the functioning of the organization, on the other - of its problematic nature (E. 3. Zinder, D. Norton, J. Harrington, etc.) [12].

The following elements of a business process can be distinguished: activities (actions), people and organizational units, resources, input, output, control logic (programs), management flows, information and material resources, and organizational assignments.

Each dedicated process has its own owner. Organizational units, including people or units, carry out actions and provide responsibility represented by organizational assignments.

The process is initiated by external events (for example, a client request). In the process of activity, the input turns into an output.

The transformation of the input during the action flow is supported by resources such as production equipment, information, machines and technologies. The information flow represents the flow of information (intangible resources) necessary for the implementation of technological operations, whereas the material flow represents the flow of material resources.

The task of the business process is determined by the fact that it regulates the sequence of control actions both within the elements of the managed system and at the points of contact of the elements of the hierarchical structure.

The study of the concept of BP determines the need to classify the business processes themselves.

Currently, scientists have proposed several options for classifying business processes.

Most often, in accordance with the opinion of M. According to Porter, business processes are divided into three groups depending on the classification feature [2, p. 99]:

1) management processes that are designed to monitor, plan, analyze work and carry out corrective actions and changes. Thanks to management processes, it is possible to guarantee the achievement of management quality, the achievement of goals by production and support processes. They do not add value to the end user, but are necessary for the efficient and effective work of the entire organization, increasing its competitiveness and profitability. Planning process, strategy development, goal setting, organizational structure formation, control - management processes;

2) Production (core) processes are among the most important processes for any organization. The organization achieves commercial goals through these business processes. These processes ensure the transformation of the product and add value to the end customer. Design, manufacture, provision of services, installation - production processes;

3) supporting (auxiliary) processes are necessary for the normal execution of management processes and production processes. These processes do not bring added value, but without them it is impossible to achieve the set goals of the entire enterprise. The supporting processes include: procurement and supply processes, personnel management, financial management, infrastructure management, finished product distribution processes and others.

The allocation of the optimal number of business processes is justified both by the size of the managed system and the focus of its activities.

The features of BP development include the formation of a network of business processes of the organization [20]:

- identification, identification and classification of BP;
- determining the interaction of BP with each other, as well as with external suppliers and consumers, and designing their network;

- identification of BP owners; modeling and documentation of BP;
- identification of BP measurement and monitoring objects;
- definition of indicators, methods and means of measuring BP;
- identification of officials and structural units responsible for the provision, collection and analysis of information.

In order to develop a competent business process, in addition to studying standard instructions and instructions, it is also necessary to clarify and confirm the schemes with the participants or owners of the process. There are five stages of building and optimizing a business process (Figure 1).

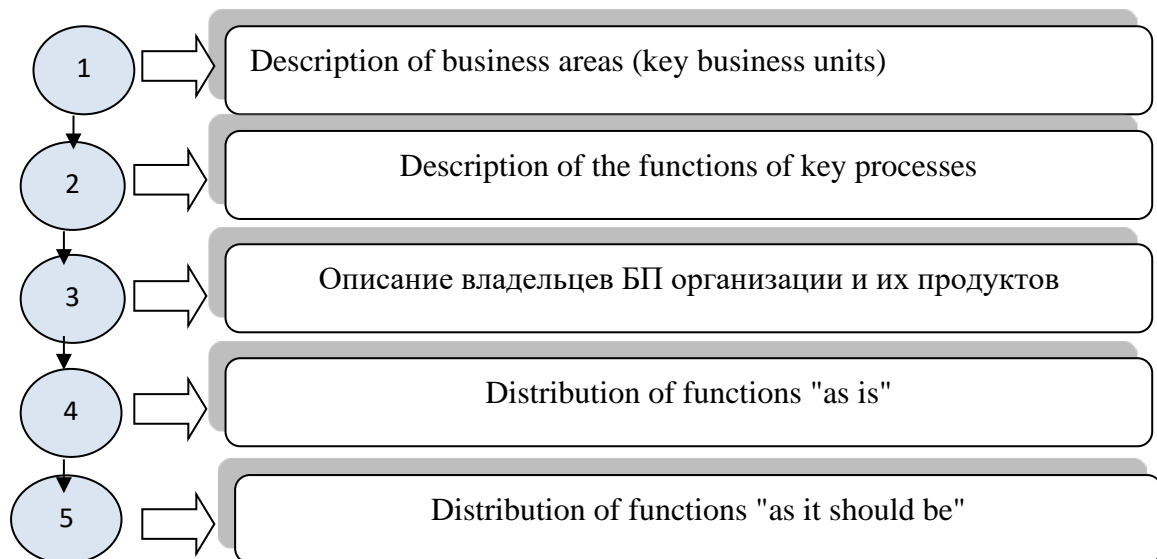


Figure 1 - Stages of business process development  
Compiled by the author using sources [21]

The processes of extraction, processing of energy resources, transportation, distribution and consumption of energy and energy carriers take place almost simultaneously. Energy and energy carriers have a number of properties that distinguish them from products from other industries (for example, the inability to store and discard electricity). All this requires the development of business process management methods and tools specifically for energy companies.

In the work of A.N. Vetchinkin, it is indicated that the business processes of energy companies are overly specialized (which is a consequence of the application of a functional approach to management) and fragmented [22].

**Conclusion.** The article [23] indicates such features of business processes of energy companies as a high degree of integration with distribution companies, vertical integration of business processes of extraction, processing, transportation and distribution of the finished product to the end consumer, dependence on the level of development of transport infrastructure.

The importance of the process approach in company management is that it has the following positive effect on the organization's activities [20, 24]:

- provides transparency of the processes;
- allows you to overcome functional barriers between departments;
- allows each employee to understand what role they play in the overall processes;
- strengthens the orientation of the organization's activities to the needs and interests of consumers;
- ensures continuous improvement based on the measurability of processes;
- increases the flexibility of the enterprise's quality system, which is not related to the functional structure of the organization, its ability to adapt to changing external conditions.

Thus, today a properly structured business process is an intellectual asset of the company. The company's reserves are concentrated in improving processes, overcoming their fragmentation and improving key indicators such as costs, quality, service level, efficiency, etc.

The development of models of key business processes helps to ensure mutual understanding at all levels of the company's management, bridge the gap between the overall strategy and the actual actions of the organization, and ensure a rapid response of the enterprise to changes in external conditions in the future. The article [23] indicates such features of business processes of energy companies as a high degree of integration with distribution companies, vertical integration of business processes of extraction, processing, transportation and distribution of the finished product to the end consumer, dependence on the level of development of transport infrastructure.

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## **ОСОБЕННОСТИ И ВАЖНОСТЬ БИЗНЕС-ПРОЦЕССОВ В ЭНЕРГОПРОИЗВОДЯЩИХ ОРГАНИЗАЦИЯХ**

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**Аннотация.** Статья посвящена особенностям и важности бизнес-процессов в энергопроизводящих организациях. В условиях глобализации и устойчивого развития эффективное управление бизнес-процессами становится ключевым фактором конкурентоспособности. В статье анализируются основные типы бизнес-процессов в энергетическом секторе, включая процессы производства, распределения и обслуживания. Рассматриваются такие методы оптимизации, как автоматизация и внедрение инновационных технологий, которые способствуют повышению эффективности и снижению затрат. Кроме того, подчеркивается важность интеграции устойчивых практик и соблюдения экологических стандартов. В заключение авторы отмечают, что эффективные бизнес-процессы являются основой для достижения стратегических целей и устойчивого развития энергопроизводящих организаций.

**Ключевые слова.** бизнес, процессы, энергопроизводство, организация, технологии

## **ЭНЕРГИЯ ӨНДІРУШІ ҰЙЫМДАРДАҒЫ БИЗНЕС-ПРОЦЕСТЕРДІҢ ЕРЕКШЕЛІКТЕРІ МЕН МАҢЫЗЫ**

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**Аңдатпа.** Мақала энергия өндіруші ұйымдардағы бизнес-процестердің ерекшеліктері мен маңыздылығына арналған. Жаһандану және тұрақты даму жағдайында бизнес-процестерді тиімді басқару бәсекеге қабілеттіліктің негізгі факторына айналууда.

Мақалада энергетика саласындағы бизнес-процестердің негізгі түрлері, оның ішінде өндіріс, тарату және қызмет көрсету процестері талданады. Автоматтандыру және тиімділікті арттыруға және шығындарды азайтуға ықпал ететін инновациялық технологияларды енгізу сияқты оңтайландыру әдістері қарастырылады. Сонымен қатар, тұрақты тәжірибені интеграциялаудың және экологиялық стандарттарды сақтаудың маңыздылығы атап өтілді. Қорытындылай келе, авторлар тиімді бизнес-процестер стратегиялық мақсаттарға жетудің және энергия өндіруші ұйымдардың тұрақты дамуының негізі болып табылатынын атап өтті.

**Түйінді сөздер.** бизнес, процестер, энергия өндіру, ұйымдастыру, технологиялар