

# **ECONOMICS AND BUSINESS ADMINISTRATION**

## **(according to the economic activity types)**

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### **BUSINESS PROCESS MANAGEMENT**

#### **(WORLD MARKET TRENDS AND LARGE PLAYERS STRATEGIES)**

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Today, due to the sharp increase in competition, companies began to actively seek ways to radically increase business efficiency. New conditions dictate new rules of the game – improving the quality of products while reducing their cost and ensuring a quick reaction of the company to constantly changing environmental conditions. All this led to the emergence of new management approaches, among which the process approach was most developed.

The requirement of flexibility and dynamism from companies can be fulfilled by managing not individual functions, but their set, which is united by the logic of their interaction. In fact, the activities of company employees consist of two types of activities: recurring (which have to be carried out periodically or in the case of certain events) and “single”, unique by the algorithm, which are not repeated in the future.

The first type of activity is called processes, the second – projects, therefore, to improve the company, a project and process management system is being built. Due to the fact that the business of many companies is being built with the participation of many partners, it is now necessary not only to improve the internal processes of the company, but also to coordinate them with the internal processes of partners, which requires an in-depth understanding of the processes and the same principles for describing them in different companies.

To typify these interactions in the telecommunications industry, the international non-profit organization TeleManagement Forum (TMF) has developed an eTOM (Enhanced Telecom Operations Map) model of processes, which has been the standard for defining processes in telecommunications companies for several years. A series of mergers and acquisitions requires companies to restructure their business processes, and if the processes of the two companies before the merger were formalized with the proper level of detail, then the integration of companies is much faster. However, in the framework of interaction between companies, it is necessary to coordinate not only and not so much business processes as information systems that automate them.

It should be understood that initially, when they were created, no one thought about the need for such coordination and most information systems do not have such capabilities. In this case, the main task in improving processes is to build integration interaction between several information systems that automate various processes. Therefore, to facilitate the tasks of cross-platform automation, many companies, developers and system integrators participate in the development of independent standards for the description and implementation of business processes. One such standard is BPMN, a business process modeling standard, a business process modeling language. However, a real breakthrough in the field of standardization of process automation is the creation of the BPMN language and the concept of web services, with which it is closely associated. BPMN is a standard for describing business processes and mechanisms for their

interaction, which creates the basis for creating flexible business processes in information systems that are able to quickly adapt to changing external conditions.

To verify the completeness of the description of activities at various levels of detail and at various stages of management, many architectural models are used, such as Zachman architecture, TEAF (The Treasury Enterprise Architecture Framework), FEAF (Federal Enterprise Architecture Framework), DoDAF (Department of Defense Architecture Framework ) Using various methods of structuring business entities and the relationships between them allows us to fully describe not only the processes of activity, but also other subject areas, such as information, necessary resources, infrastructure, personnel, etc. All this allows you to look at the systematic description of the activity from new perspectives and effectively solve the problems of improving processes using information technology.

Processes have long ceased to be a new ideology of management, and most companies already use the process approach, and if we talk about the applicability of the process approach, then many companies not only solve the problems of formalizing and automating processes, but also actively started to improve processes. Moreover, the use of various analysis tools, such as simulation or calculation of the cost of processes allows you to make informed decisions on improvement, choosing from several options the most optimal criteria for cost, lead time, and quality. However, not everyone risks using such radical methods of process improvement as horizontal and vertical compression of processes. This makes it impossible to get all the possible advantages of process management, and therefore in this direction there is still a large reserve for optimizing activities.

The ideas of quality management are gradually being transformed from formal decisions into measures to improve processes that are aimed at changing processes to improve the quality of both the products and the business processes themselves. And many companies from the formal receipt of the certificate of conformity are moving to the improvement of business processes. However, the construction of a process management system and their improvement cannot be effective without connection with the level of strategic management. Therefore, to effectively manage the company, it is necessary to build a system that will allow you to determine strategic goals and ensure their implementation through a system of projects and processes, ensuring performance control through sets of key performance indicators (KPI – Key Performance Indicators). This is achieved using a balanced scorecard (BSC-Balanced ScoreCard). And although these systems have so far been implemented by the most advanced companies, interest in their development is steadily increasing. And even if the company does not use a balanced scorecard, in most companies it is mandatory to manage processes through the monitoring of key performance indicators and the transition to a balanced scorecard is a matter of several years.

In addition to meeting market requirements, companies have to work to comply with legal requirements, both domestic and other countries. For example, the requirements of the United States Corporate Accounting and Financial Violations Act (SOX – Sarbanes-Oxley Act) have affected more than 7,500 companies worldwide. In fact, a new management area is being formed in the company – the compliance management system, which is aimed at changing the organization's processes to ensure compliance with the legal requirements that are imposed on the company. The adoption of the SOX law in recent years has forced many companies to improve their internal control systems, which has required improvements in financial reporting processes. Developing an understanding of the internal control system, the ideas of the process approach were adopted by many internal and external auditors.

In fact, the business process has become the subject of audit, and the improvement of processes to ensure minimization of operational risks has become one of the types of improvement. Therefore, the improvement of the internal control system required not only the improvement of business processes, but also the construction of an operational risk management system in business processes and related tools. In Russia, compliance management has not yet received such a massive character as for Western companies, but most large Russian companies are actively working in this direction. Companies independently, as well as consultants and system integrators, improve their business processes by implementing processes based on best practices, however, you need to understand that along with this there is a general typification of enterprise processes and more and more standard processes are used in different companies.

The use of standard ERP solutions (Enterprise Resource Planning – management of enterprise resources) often leads to similar consequences, since systems with certain functionality are introduced and their processing for a specific customer is often not economically viable. Therefore, now the main competitive advantage of companies is not in the logic of the business process, but in improving process management through increasing their maturity levels. Unfortunately, at present, only a few companies are

beginning to work to increase process maturity levels. Although, if we turn to the definition of process maturity, this is the ability of the process to achieve the desired goal.

And the level of maturity of the process is a point on a six-point scale representing the increasing maturity of the process, with each next level being built upon reaching the maturity of the previous one. Maturity implies the potential for increasing the productivity of a business process and reflects both the completeness of the process and the constancy with which the organization applies this process. In fact, this is a universally recognized evolutionary phased algorithm for the transition from a company having processes with a low level of maturity to a company whose level of maturity of processes is acceptable for a given moment. As process maturity grows, the company must create an appropriate infrastructure and corporate culture that supports methods, practices and business processes, preserving these achievements even after the employees who developed them leave the organization.

Sometimes, following the evolutionary path through process improvement and automation, companies take their processes to the next maturity levels, however, understanding and evaluating the current maturity level in accordance with the generally accepted methodology can be done much faster. The maturity of the processes is the objective factor that allows us to evaluate the company's activities without reference to the current market situation, which allows us to certify the company's processes on an independent scale of maturity levels and determine the areas of improvement that are necessary to increase maturity. Many companies have already optimized processes to those levels of maturity when the process requires minimal intervention and the logic embedded in the process allows it to adapt to changing environmental conditions.

Improving processes requires the use of modern tools, so the market for describing and analyzing business processes is experiencing rapid growth, which is primarily associated with building up functionality in the field of process analysis and the use of web technologies. Process automation tools require less and less programming when they are implemented, which allows you to carry out process automation projects with high speed and small resources. Moreover, the task of analyzing processes and the quality of their automation arises more and more often, which requires putting order in information systems and the mechanisms of their interaction. Using a process approach allows you to determine the requirements for information systems and check how today's situation provides effective information support for business processes.

The integration of many information systems within the framework of business processes has long been a headache for IT professionals, so Workflow systems began to increase this functionality. The term Workflow refers to the management of the workflow and, through it, the business process. In accordance with the glossary of the international organization Workflow Management Coalition (WfMC), Workflow is an automation, full or partial, of a business process in which documents, information or tasks are transferred to carry out the necessary actions from one participant to another in accordance with a set of procedural rules. Workflow system is a system that provides creation, implementation and management of the workflow using software that is able to interpret the description of the process, interact with the participants in the workflow and, if necessary, invoke the corresponding applications.

In fact, Workflow systems have become a reaction of the IT market to a process approach to management. And if, for example, we consider most of the tasks in a project to automate processes in a telecommunications company, then half of them will be associated with the integration of various information systems within one business process. Currently, the focus of activity automation is shifting from the implementation of ERP solutions to process automation using Workflow systems. But, not only process automation is now in demand, many companies are already interested in solutions for controlling business processes, which allows us to assert that they have implemented a full cycle of business process management, which consists of the following steps: description, improvement, automation, execution, analysis and Controlling

Currently, telecommunications and banking companies are most actively seeking process management, but the public sector is not far behind. One of the principles of administrative reform is the introduction of process management through the mechanism of administrative regulations and the automation of processes using electronic administrative regulations, which are understood as process automation systems – Workflow systems. Many of the most effective federal executive bodies have already formalized their processes and are now engaged in their improvement, including in accordance with service standards that actually set the requirements of users of the results of processes. Banking software providers create Workflow modules within their information systems to automate their customers' business processes.

The introduction of large ERP solutions in the oil and gas and metallurgical industries has made the task of describing processes mandatory in preparation for automation, so the process-oriented

implementation of ERP solutions has actually become the de facto standard. ERP solution developers also include a workflow component for process automation. Many companies, in the wake of automation, are actively improving their business processes, getting the maximum result from the use of IT solutions. Energy companies also do not lag behind in the field of business process management, which is confirmed by the large number of projects conducted in these companies and related to both automation and organizational improvement. It can be noted that more and more the process approach from the new management technology is becoming a common tool for improving companies, with the help of which many companies improve their processes daily without much pathos and noise.

If you look into the near future, the process approach should become the main one, from the point of view of designing activities in the company, and this is primarily due to the emergence of a new automation principle – service-oriented architecture SOA (Service-Oriented Architecture). In fact, this is a new principle of software development based on the use of IT services with standardized interfaces and business processes that connect these services with specific business logic. Before the concept of SOA appeared in application development, business logic was programmed based on a flowchart that was not always associated with a business process. The developed program code was tested and then implemented.

If it is necessary to change the logic of the business process, there was a need to change the program code and retest, and if such changes in the business process go on constantly, you will have to constantly rewrite the program code, which increases the cost of ownership of the information system and impedes the full improvement of processes. Today, the situation has changed radically: modern tools for managing business processes (Workflow) allow you to do without manual development and testing.

So, using modeling methods and semantic checks, you can check the correctness of the description and execution of the business logic of the processes (presented in the diagrams) and then automatically receive descriptions of these diagrams in XML business process management languages (BPML). In the next step, BPML is used by Workflow systems to route the workflow of an organization in accordance with the logic of the business process.

The new principle will ensure ease in changing business processes, and in fact, the tasks of designing the logic of the business process will be solved by the participants and the owner of the business process. The application of SOA-based solutions will fundamentally reduce the cost of information technology and provide mechanisms for improving business processes using information systems.

If we talk about trends in the field of business process management, then, summarizing the above, we can note:

- using a balanced scorecard to build the relationship between the strategic level of management and business processes;
- the transition from tasks describing processes to tasks of improvement in terms of cost, quality and lead time;
- solving the problems of conformity management of processes, especially the SOX law;
- process automation using Workflow – systems;
- building systems for controlling business processes;
- the emergence and application of BPMN and the concept of a service-oriented SOA architecture.

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УДК 331

**Мамедов Ельшад Ягуб**, доктор економічних наук, професор. **Мехралієва Айтен Асіф**, докторант (загальна економіка). Азербайджанський державний економічний університет (UNEC). **Управління бізнес-процесами (тенденції світового ринку та стратегії великих гравців)**. Сьогодні у зв'язку з різким загостренням конкуренції компанії почали активно шукати способи радикального підвищення ефективності бізнесу. Нові умови диктують нові правила гри - підвищення якості продукції при одночасному зниженні її вартості та забезпечення швидкої реакції компанії на постійно мінливі умови навколишнього середовища. Все це призвело до появи нових управлінських підходів, серед яких найбільш розвинений процесний підхід. Вимога гнучкості і динамізму від компаній можна задовольнити, керуючи не окремими функціями, а їх набором, який об'єднує логіка їх взаємодії. Фактично діяльність співробітників компанії складається з двох видів діяльності: повторюваних (які повинні виконуватися періодично або в разі певних подій) та «одиничних», унікальних за алгоритмом, які не повторюються в майбутньому. Фактично бізнес-процес став предметом аудиту, а вдосконалення процесів з метою мінімізації операційних ризиків стало одним з видів поліпшення. Таким чином, вдосконалення системи внутрішнього контролю вимагало не тільки поліпшення бізнес-процесів, а й побудови системи управління операційним ризиком в бізнес-процесах і пов'язаних з ними інструментах. Таким чином, зараз головна конкурентна перевага компаній не в логіці бізнес-процесу, а в поліпшенні управління процесами за рахунок підвищення рівня їх зрілості. На жаль, в даний час лише кілька компаній починають працювати над підвищенням рівня зрілості процесів. Хоча, якщо звернутися до визначення зрілості процесу, то це здатність процесу досягати бажаної мети.

**Ключові слова:** бізнес, управління, економіка, бізнес-процеси.

UDC 331

**Mammadov Elshad Yagub**, D.Sc. (Economics), Professor. **Mekhraliyeva Ayten Asif**, Doctoral student (General Economics). Azerbaijan State University of Economics (UNEC). **Business process management (world market trends and large players strategies)**. Today, due to the sharp increase in competition, companies began to actively seek ways to radically increase business efficiency. New conditions dictate new rules of the game - improving the quality of products while reducing their cost and ensuring a quick reaction of the company to constantly changing environmental conditions. All this led to the emergence of new management approaches, among which the process approach was most developed. The requirement of flexibility and dynamism from companies can be fulfilled by managing not individual functions, but their set, which is united by the logic of their interaction. In fact, the activities of company employees consist of two types of activities: recurring (which have to be carried out periodically or in the case of certain events) and "single", unique by the algorithm, which are not repeated in the future. The first type of activity is called processes, the second - projects, therefore, to improve the company, a project and process management system is being built. Due to the fact that the business of many companies is being built with the participation of many partners, it is now necessary not only to improve the internal processes of the company, but also to coordinate them with the internal processes of partners, which requires an in-depth understanding of the processes and the same principles for describing them in different companies. In fact, the business process has become the subject of audit, and the improvement of processes to ensure minimization of operational risks has become one of the types of improvement. Therefore, the improvement of the internal control system required not only the improvement of business processes, but also the construction of an operational risk management system in business processes and related tools. The new principle will ensure ease in changing business processes, and in fact, the tasks of designing the logic of the business process will be solved by the participants and the owner of the business process. The application of SOA-based solutions will fundamentally reduce the cost of information technology and provide mechanisms for improving business processes using information systems.

**Key words:** business, management, economy, business processes.