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ИЗДАТЕЛЬСТВО
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BUSINESS PROCESS MANAGEMENT

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This article describes the key benefits of using business process management and the most common business process modeling techniques.

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Business process management, or BPM, as defined by Gartner, is a discipline that uses a variety of tools and techniques to design, model, execute, monitor, and optimize business processes. [1] A business process coordinates the behavior of people, systems, information, and things to produce business results in support of a business strategy.

Business Process Management (BPM) is a systematic approach for reflecting, designing, executing, documenting, measuring, monitoring, and controlling both automated and non-automated processes, to achieve a company's goals and business strategies. While early contributions were focusing on the (re-)design of single processes, contemporary research calls for a more holistic view on the management of organizational processes. To that end, BPM is understood as an integrated set of corporate capabilities related to strategic alignment, governance, methods, technology, people, and culture.

BPM focuses on putting a consistent, automated process in place for routine transactions and human interactions. It helps to reduce the business operational costs by decreasing waste and rework, and by increasing the overall efficiency of the team.

To manage any business processes, you need to:

1. Describe the business processes themselves.
2. Implement the described business process in the work of the team
3. Assign people responsible for business processes.

To understand why it is necessary to implement business processes in the organization, we need to consider the advantages of implementing business process management.

Business Process Management helps organizations move toward total digital transformation and helps them realize bigger organizational goals. Here are some of the key benefits of using BPM in your business:

1. *Improved Business Agility.* It is necessary to constantly change and optimize the business processes of the organization in accordance with market conditions. BPM allows organizations to suspend business processes, make changes, and then re-execute them.

2. *Reduced Costs and Higher Revenues.* The business process management tool eliminates bottlenecks, which significantly reduces costs over time. This can lead to shorter product delivery times and provide customers with quick access to services and products, which in turn will lead to increased sales and increased revenue.

3. *Higher Efficiency.* Business process integration creates the potential for end-to-end process efficiency improvements. With the right information, process owners can carefully monitor delays and allocate additional resources if necessary. Automation and elimination of repetitive tasks increase the efficiency of the business process.

4. *Better Visibility.* The BPM software enables automation, while providing real-time monitoring of key performance indicators. This increased transparency leads to improved governance and the ability to effectively change structures and processes when tracking results.

5. *Compliance, Safety, and Security.* A comprehensive BPM ensures that organizations comply with standards and monitor compliance with legislation. BPM can also contribute to safety and security measures by properly documenting procedures and facilitating compliance.

Business process modeling is not just a primitive scheme. This allows you to create a complete picture of the organization's activities, identify and correct the shortcomings of existing processes

Business process modeling or process modeling is an illustration of an organization's business processes. Process modeling is an essential component of effective business process management

Process modeling software gives an analytical representation of 'as-is' processes in an organization and contrasts it with 'to-be' processes for making them more efficient.

There are many benefits of business process modeling:

1. It gives everyone a clear understanding of how the process works.
2. It ensures consistency and controls the process.
3. It identifies and eliminates redundancy and inefficiency.
4. It sets a clear start and end to the process.

The main purpose of business process modeling tools is to analyze how things are currently going and model how they should be performed to achieve better results.

Business process modeling can be expressed using flowcharts, programs, hypertext, or scripts. There is not only one way to implement business process modeling; in fact, you can choose from 12 techniques.

There are some examples of the most common business modeling techniques.

One of the examples is Business Process Modeling Notation (BPMN) [2].

BPMN is a business process modeling language that is an intermediate link between visualization and business process implementation. So, this notation is a description of the graphical elements used to build a business process flow diagram.

BPMN symbols fall into the following categories:

1. Flow objects. They show the flow of the process and are represented as follows:
 - 1.1 Circles. Events are displayed inside of circular shapes.
 - 1.2 Rectangles. Activities fit into rectangular boxes.
 - 1.3 Diamonds. Control points or gateways are represented as diamond shapes.
2. Connecting objects. They are used to show how tasks are connected and in what sequence they occur:
 - 2.1 Solid lines (show task transfers).
 - 2.2 Dashed lines (show messages).
3. Swim lanes. They make provision for subprocesses that share responsibilities and how they interact. The swimlanes are the people or departments that the subprocess impacts on.
4. Artifacts. They are used if you have additional information that is not a sequence flow or message flow, but that will further explain the process:
 - 4.1 Dotted lines. These points to the flow object that the extra information expands on.
 - 4.2 Squares outlined with dots and dashes. These are group related elements in the diagram.
 - 4.3 Square brackets. Text annotations are added here.

IDEF0 is a graphical modeling notation used to create a functional model that displays the structure and functions of a system, as well as the flows of information and material objects that connect these functions [3].

The standard IDEF0 represents an organization as a set of modules, there is a rule that the most important function is located in the upper-left corner, in addition, there are rules of the parties:

- 1) input arrow always comes to the left edge of the activity,
- 2) control arrow – to the upper edge,
- 3) mechanism arrow – bottom edge,
- 4) exit arrow – right edge.

The description looks like a "black box" with inputs, outputs, controls, and mechanism, which is gradually detailed to the desired level. Also, in order to be properly understood, there are dictionaries of descriptions of activities and arrows. In these dictionaries, you can give descriptions of what you mean by an activity or arrow.

Modeling business processes greatly simplifies the life of the owner and head of the organization. The main thing is to correctly identify business processes, describe them and implement them taking into account all changes.

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