BUSINESS PROCESSES, THE ESSENCE OF THEIR DESCRIPTION AND MODELING

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A B S T R A C T	K E Y W O R D S
This article is about a business process. This article also mentions the main features of a business process; in the literature there are many definitions of the term "business process", among them the main definitions are highlighted. Detailed information about the types of business processes is also provided. In addition, this article describes the purpose and objectives of describing and modeling business processes, as well as the sequence of methods for describing business processes, as well as the important aspects of the business process in each method, as well as productivity and quality. solutions to optimize activities.	Business process, description of a business process, business process model, procedure, business modeling, business model, textual, tabular, graphical, process, action.

Introduction

A business process consists of a coherent, purposeful and regulated system of activities in which, with the help of management influence and resources, the input into the process is transformed into results that are valuable to consumers.

The main characteristics of the business process are that it is determined by the relationships, motives, constraints and resources of a limited set of subjects and objects that are integrated into the system for the common good in order to obtain a specific result that is alienated or consumed by the system itself. is a set of interconnected actions.

Business processes are divided into main, companion, auxiliary, supply, management processes and development processes.

The main business processes are the processes aimed at the creation of the enterprise and the production of goods or services that are the target objects to ensure the achievement of a certain result of economic activity.

Accompanying business processes are processes that lead to the formation of relevant results of the enterprise's economic activity.

Supporting and supporting business processes are processes that are designed to carry out the main and supporting processes and are aimed at supporting their specific characteristics.

Management business processes are processes that cover the entire set of management functions at the level of each business process and the enterprise as a whole.

Development business processes are processes of improving manufactured products or services, processes of developing technologies, processes of changing equipment, as well as innovation processes..

Description of business processes is carried out for the purpose of their further analysis and improvement. Modeling of business processes allows to analyze not only how the enterprise works, how it interacts with external organizations, customers and suppliers, but also how activities are organized in each separate department, site, workplace.

In general, a business process model should answer the following questions, which allows for a comprehensive analysis, to consider the business process from all points of view and to detail it:
• what procedures (functions, works) should be performed to obtain the given final result;
• the sequence in which these procedures are performed;
• what control and management mechanisms exist within the considered business process;
• who performs the procedures of the process;
• what input documents/data each procedure of the process uses;
• what output documents/data the process procedure creates;
• what resources are needed to perform each procedure of the process;
• what documents/conditions regulate the execution of the procedure;
• what parameters describe the procedures and the implementation of the whole process.

Business modeling is the activity of identifying, describing, analyzing existing business processes, as well as designing new business processes.

Business modeling also refers to a separate process in the process of science and software development, which describes the enterprise's activity and determines the requirements for the system (processes and operations that should be automated in the developed information system).

A business model is understood as a structured graphic description of the processes and/or functions/operations network related to the data, documents, organizational units and other objects that reflect the existing or proposed activities of the organization.

There are following ways to describe business processes:

1. Text method. This method consists of a sequential description of the business process in plain text, for example: "The sales department creates a contract and coordinates it with the legal department." Most enterprises have developed and use regulatory documents in their activities, some of which are process rules and nothing more than a textual description of their business processes. Undoubtedly, this option for the analysis and optimization of the company's activities has a significant drawback, it is almost impossible to systematically review and analyze the description of the business process in the form of text, which is related to the structure of human thinking (o "the difficulty of winter as a type of activity, the need for images, "figurative corrections", etc.). Therefore, when using a textual description of business processes, the productivity and quality of decisions on the optimization of activities are relatively low, which is especially evident when the decision is made by a group of people.

2. Tabular method. The tabular method of describing a business process is more formalized and involves dividing the business process into cells of a structured table, where each column and row has a unique value.

An example of a tabular description of a business process

Process - purchase. The owner is the deputy commercial director.

The purpose of the process is to meet production needs with materials and components. Brief description of the process - organization of supply of goods and materials, their storage and transfer to production, selection and evaluation of suppliers.

This table is easier to read, it makes it easier to understand who is responsible for what, how the work is done in sequence during the activity, and analyze the business process accordingly. The tabular form of describing business processes is more efficient than text, so it is now more widely used and used to describe them in applications for business process automation tasks.

3. Graphical approach. Currently, graphic approaches and methods for describing business processes have the greatest development and application. It is recognized that they have the greatest efficiency in describing, analyzing and solving the problems of rational organization of the enterprise. When the student is presented with information in the form of graphic images, his ability to analyze and make decisions increases significantly.

Today, there are a large number of methods (IDEF0, IDEF3, DFD, WORKFLOW, UML, ARIS, etc.) and tools (BPWin, ERWin, PowerDesigner, etc.) for describing business processes.

In structure and object-oriented analysis, workers use tools that model processes and relationships between data in the system in the form of certain types of diagrams. These tools are compatible with certain types of system models, among which the most common types are:

• IDEF (Integrated Definition) – a family of structural models and corresponding diagrams;

• DFD (Data Flow Diagrams) - data flow diagrams;

• ERD (Entity-Relationship Diagrams) - "essence-relationship" diagrams;

• Workflow – work process management technology;

• BPMN (Business Process Modeling Notation);

• Simulation modeling tools based on the mathematical apparatus of Color Petri Nets (CPN);

• object-oriented methods based on the unified UML modeling language;

• broad-based integrated tools and techniques, such as ARIS.

References
1. 1. Volkova, V.N. Modelirovanie system: Flying. posobie [Text] / V.N. Volkova [i dr.]; pod ed. V.N. Volkovoy, V.N. Kozlova. - SPb.: Izd-vo Polytechnic. Un-ta, 2012. – 440 p.
2. Denisov, A.A. Sovremennye problemy sistemnogo analiza: Uchebnik / A.A. Denisov. - 3rd izd. - SPb.: Izd-vo Polytechnic. Un-ta, 2008. – 304 p.
3. Volkova, V.N. Methody formalizovannogo predstavleniya system: Ucheb. posobie [Text] / V.N. Volkova, A.A. Denisov, F.E. Temnikov. - SPb.: Izd-vo SPbGTU, 1993. - 107 p.
4. Denisov, A.A. Sovremennye problemy sistemnogo analiza: Uchebnik / A.A. Denisov. - 3rd izd. - SPb.: Izd-vo Polytechnic. Un-ta, 2008. – 304 p.

5. Gorelova, G.V. Issledovanie slabostrukturirovannyx problem sotsialno-ekonomicheskikh system: cognitive approach [Text] / G.V. Gorelova, E.N. Zakharova, S.A. Radchenko. - Rostovna-Donu: Izd-vo RGU, 2006. - 330 p.

6. G'ayratovich, E. N. (2022). It Is A Modern Educational Model Based On The Integration Of Knowledge. Eurasian Scientific Herald, 5, 52-55.

7. G'ayratovich, E. N. (2022). The Theory of the Use of Cloud Technologies in the Implementation of Hierarchical Preparation of Engineers. Eurasian Research Bulletin, 7, 18-21.

8. Gayratovich, E. N., & Yuldashevna, T. O. (2020). Use of visualized electronic textbooks to increase the effectiveness of teaching foreign languages. European Journal of Research and Reflection in Educational Sciences Vol, 8, 12.

9. Ergashev, N. (2021). METHODS OF USING VISUALIZED EDUCATIONAL MATERIALS IN TEACHING PROGRAMMING LANGUAGES IN TECHNICAL UNIVERSITIES. INNOVATION IN THE MODERN EDUCATION SYSTEM.

10. Ergashev, N. (2020). Didactic fundamentals of electronic books visualization. An International Multidisciplinary Research Journal.

11. Ergashev, N. (2020). Using the capabilities of modern programming languages in solving problems of technical specialties. An International Multidisciplinary Research Journal.

12. Ergashev, N. (2021). ЎКУВ МАТЕРИАЛИНИ ВИЗУАЛ ТЕХНОЛОГИЯЛАР АСОСИДА НАМОЙИШ ЭТИШНИНГ ЎЗИГА ХОС АСПЕКТЛАРИ. Scienceweb academic papers collection.

13. Ergashev, N. (2022, May). FEATURES OF MULTI-STAGE TRAINING OF TEACHERS'CONTENT TO PROFESSIONAL ACTIVITIES USING CLOUD TECHNOLOGY IN THE CONDITIONS OF DIGITAL EDUCATION. In International Conference on Problems of Improving Education and Science (Vol. 1, No. 02).

14. Ergashev, N. (2022, May). THEORETICAL STAFF TRAINING USING CLOUD TECHNOLOGY IN CONTINUING EDUCATION. In International Conference on Problems of Improving Education and Science (Vol. 1, No. 02).

15. Ergashev, N. (2022, May). PROBLEMS OF USING DIGITAL EDUCATION IN PEDAGOGICAL THEORY AND PRACTICE. In International Conference on Problems of Improving Education and Science (Vol. 1, No. 02).

16. Ergashev, N. (2022, May). THEORY OF TRAINING OF PEDAGOGICAL PERSONNEL IN HIGHER EDUCATION USING CLOUD TECHNOLOGIES IN THE CONDITIONS OF DIGITAL EDUCATION. In International Conference on Problems of Improving Education and Science (Vol. 1, No. 02).

17. Ergashev, N. (2022, May). PROBLEMS OF DIGITAL EDUCATION IN PEDAGOGICAL THEORY AND PRACTICE. In International Conference on Problems of Improving Education and Science (Vol. 1, No. 02).

18. Ergashev, N. (2021). METHODS OF USING VISUALIZED EDUCATIONAL MATERIALS IN TEACHING PROGRAMMING LANGUAGES IN TECHNICAL UNIVERSITIES. INNOVATION IN THE MODERN EDUCATION SYSTEM.

19. G'ayratovich, E. N. (2022). The Problem of Training Future Engineer Personnel on the Basis of Cloud Technology in Technical Specialties of Higher Education. Eurasian Scientific Herald, 13, 1-4.

20. Ergashev, N. (2023). Bulutli texnologıyalarda mavjud tahdidlar, ularga qarshi kurashish mexanizmları va metodlari. Electron Library Karshi EEI, 1(01). Retrieved from https://ojs.qmii.uz/index.php/el/article/view/273

21. Ergashev, N. (2023). ОЛИЙ ТАЪЛИМ ТЕХНИКА ИХТИСОСЛИКЛАРИ ЎҚУВ МАТЕРИАЛЛАРИНИ ДАСТУРИЙ ВИЗУАЛЛАШТИРИШНИНГ ИЛМИЙНАЗАРИЙ АСОСЛАРИ. Electron Library Karshi EEI, 1(01). Retrieved from https://ojs.qmii.uz/index.php/el/article/view/270

22. Ergashev, N. (2023). Texnika ixtisosliklari mutaxassislik masalalarini yechishda C++ visual dasturlash tilida klasslardan foydalanish tahlili. Electron Library Karshi EEI, 1(01). Retrieved from https://ojs.qmii.uz/index.php/el/article/view/272

23. Ergashev, N. (2023). Methods of teaching parallel programming methods in higher education. Electron Library Karshi EEI, 1(01). Retrieved from https://ojs.qmii.uz/index.php/el/article/view/271

24. Ergashev, N. (2023). Raqamli ta'lim sharoitida bulutli texnologiyalar yordamida o'qituvchilarni kasbiy faoliyatga ko'p bosqichli tayyorlashning nazariy aspektlari. Electron Library Karshi EEI, 1(01). Retrieved from https://ojs.qmii.uz/index.php/el/article/view/274

25. ERGASHEV, N. THE ANALYSIS OF THE USE OF CLASSES IN C++ VISUAL PROGRAMMING IN SOLVING THE SPECIALTY ISSUES OF TECHNICAL SPECIALTIES. http://science. nuu. uz/uzmu. php.