

### **Effective Business Process Management in the Digital Economy**

Business processes determine the organization of enterprise activities, shape the interrelation of managerial, production and service operations, and influence resource efficiency and market competitiveness. Business process management is regarded as a methodology for aligning strategic and operational objectives, optimizing costs, and ensuring the effectiveness of economic performance.

The problematic issues of business process management include fragmented implementation of the process approach, insufficient level of automation, and orientation towards local tasks without consideration of long-term strategic perspectives. The presence of such issues complicates enterprise adaptation to environmental changes and limits opportunities for improving overall efficiency.

The relevance of the research is determined by the transition to the digital economy, which is accompanied by large-scale transformation of the business environment. Globalization, digitalization, the introduction of intelligent technologies and automated systems create new conditions for enterprise development, where effective business process management becomes a key factor for growth and the maintenance of sustainable competitive positions.

Effective business process management in the digital economy is characterized by cyclicity and continuous improvement. To illustrate the logic of this approach, the BPM lifecycle model is applied, which demonstrates the sequence of key stages and their interconnection within the management system. As shown in Figure 1, the management cycle includes modeling, automation, monitoring, analytical evaluation, and optimization, ensuring alignment between strategic and operational objectives of the enterprise.

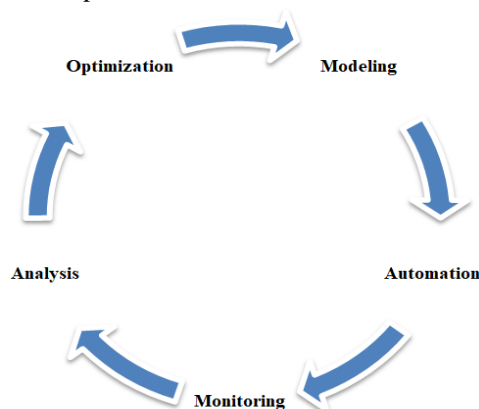


Figure 1 – Business Process Management (BPM) Lifecycle in the digital economy

The presented scheme illustrates the principle of cyclicity in business process management and emphasizes the importance of continuous improvement in the digital economy. The closed cycle demonstrates that each stage directly influences further development, ensuring flexibility and adaptability of processes. Such an approach supports enterprise efficiency even under dynamic changes in the external environment.

Further discussion should focus on the analysis of key trends in the digital economy that shape new conditions for business process management and define the prospective directions of its transformation.

The digital economy is characterized by the rapid spread of information technologies, automation of operations, the use of artificial intelligence and big data, as well as the development of cloud platforms and e-commerce services. Mobile applications ensure continuous access of consumers to goods and services and create new channels of communication between businesses and clients. Real-time analytics provides the ability to track consumer behavior and make well-grounded managerial decisions. Business Intelligence systems make it possible to forecast demand, optimize inventories, and reduce risks. Omnichannel models integrate online and offline sales channels, forming a unified space of interaction with consumers. At the same time, the importance of cybersecurity increases, as digitalization of business processes is accompanied by a higher risk of data breaches and cyberattacks. The need for a comprehensive approach to business process management is driven by the combination of technological modernization with organizational changes and the development of digital competencies of personnel [5;7].

Economic analysis confirms that digitalization of business processes generates a multidimensional effect for enterprises. According to McKinsey [5], automation reduces operational costs by 20-30%, decreases process execution time by 30-60%, and increases labor productivity by 15-25%. The use of Business Intelligence systems improves the quality of managerial decisions and forecasting accuracy, while omnichannel models of interaction enhance customer satisfaction and loyalty. OECD [7] reports that companies with a high level of digital maturity adapt more quickly to environmental changes and reduce operational risks.

Global investments in digital transformation are projected by Statista [9] to reach 3.9 trillion USD, while the digital transformation market, according to Grand View Research [3], will grow from 1.07 trillion USD in 2024 to 4.61 trillion USD by 2030, with a compound annual growth rate (CAGR) of 28.5%. Organizations that successfully implement digital practices report revenue growth of 5-15% and cost reductions of 10-25% [4].

At the global level, automation also generates substantial impact: Quixy [8] projects that workflow automation in manufacturing could deliver up to 4.9 trillion USD in additional annual revenue by 2030. A survey conducted by Flobotics [2] found that 74% of users of automation tools complete tasks faster, confirming measurable benefits even at the level of individual employees.

Nevertheless, the realization of digital potential remains partial. Docsumo [1] shows that companies achieve only 31% of the expected revenue growth from digital transformation, while McKinsey [6] reports that 77% suffer from a shortage of digital talent. These findings indicate that technological investments alone are insufficient without parallel development of organizational capabilities and human competencies.

The observed changes can be explained by a combination of factors. First, automation eliminates redundant operational costs associated with manual procedures, directly reducing the cost of goods and services. Second, digital technologies accelerate business processes through electronic document management, integrated platforms, and real-time analytics, thereby reducing cycle time. The application of intelligent systems enhances labor productivity by automating routine tasks and enabling personnel to focus on strategic functions. An additional factor is the enhancement of transparency and predictability in enterprise activities, which improves the quality of managerial decisions and strengthens consumer confidence.

Despite evident advantages, digitalization of business processes is associated with a range of risks and limitations. High implementation costs remain a major barrier, particularly for small and medium-sized enterprises, as the adoption of advanced technologies requires substantial investment in infrastructure and software. Limited digital competencies among personnel reduce the efficiency of implemented systems and slow down organizational adaptation. Increased vulnerability to cyberattacks and data breaches creates additional threats, making cybersecurity a critical element of business process management. Dependence on external technology providers and digital platforms also generates risks related to system failures, data integrity, and continuity of operations. Another limitation is the uneven level of digital maturity across countries and sectors, which may widen the gap in competitiveness. Regulatory uncertainty further intensifies risks, as rapid technological development often outpaces the establishment of appropriate legal and institutional frameworks.

Future development of business process management will be determined by the deeper integration of advanced technologies. Artificial intelligence and machine learning will increasingly support decision-making, predictive analytics, and process optimization. Real-time big data analytics will enable enterprises to respond more quickly to environmental changes and customize processes with higher precision. Cybersecurity integration into BPM systems will become a mandatory condition for sustainable functioning, as data protection and operational resilience gain strategic significance. A further stage of transformation is the transition from simple automation to the intellectualization of business processes, which will ensure greater flexibility, innovativeness, and competitiveness of enterprises in the digital economy.

In conclusion, business process management in the digital economy becomes a key tool for improving enterprise efficiency and competitiveness. Digitalization reduces costs, increases productivity, enhances decision-making quality, and creates new forms of customer interaction. At the same time, further development requires overcoming risks and barriers related to high costs, skill shortages, and cybersecurity threats.

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