

INITIATIVES TO IMPLEMENT BUSINESS PROCESS MANAGEMENT SOLUTIONS IN ORGANIZATIONS

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Purpose: The aim of the article is to identify key initiatives in the implementation of business process management solutions in modern organizations.

Design/methodology/approach: A review of the relevant literature and studies on business process management and artificial intelligence.

Findings: Classical concepts of the process-oriented approach to management, rooted in the Industrial Revolution, are evolving towards the concept of intelligent business process management based on information technology and artificial intelligence.

Practical implications: The presented research results and practical guidelines can be a reference point for both companies already using the process approach and those that are just planning to implement it. Implementing a process-based approach allows not only for better use of resources, but also for increased innovation and the organization's ability to respond effectively to new challenges.

Originality/value: The research indicates that both in the strategic and operational perspective of business process management, artificial intelligence will be increasingly present. The challenge will not be its implementation, but the way it will be used. The way in which organizations integrate AI mechanisms into the management and implementation of business processes will determine their competitive advantage. Therefore, an interesting research direction seems to be to determine in which elements of BPM artificial intelligence is likely to provide the most benefits to companies of specific sizes, models and scopes of operation.

Keywords: business process management, BPM initiatives

Category of the paper: research paper.

1. Introduction

Changes in the environment of modern organizations make it necessary to use management concepts that enable flexible adaptation to market requirements, based on IT solutions and an agile approach to project implementation and change management. The application of business

process management to emerging economic, social, and technological challenges is seen as crucial (El Ghalbzouri, El Bouhdidi, 2022; Gzik, 2023; Mendling, Pentland, Recker, 2020). The interest of organizations in the process approach affects the dynamic development of the market of business process management tools. It is estimated to be worth \$31.2 billion globally in 2030 (BPM Report, 2023). By 2027, the United States is projected to grow by 12.1% in Japan (6.1%), Canada (7.8%) and Germany (7.1%) respectively in the period to 2027 (Business process management (BPM) - Global Market Trajectory & Analytics, 2022). Managers are looking for areas and tools to optimize processes in the context of robotization, automation, the use of cloud computing and artificial intelligence. The aim of the article is to identify key initiatives in the implementation of business process management solutions in modern organizations. For this purpose, the article uses the classic method of literature analysis, which involves identifying the state of research and critically reflecting on it (critical literature review). Based on the literature analysis (using the Web of Science, Google Scholar and Springer databases), the subject of BPM development and implementation in organizations was identified, with particular emphasis on new trends related to business process management and artificial intelligence. The results of considerations and research presented in the article can serve as guidelines for managers of process-oriented organizations, as well as those who intend to implement such solutions in practice.

2. Business process management – essence and benefits

Business process management is about perceiving the company through the prism of the processes carried out in it. Processes define all activities undertaken by the company, in particular activities that are key from the perspective of its goals and are the main subject of management (Gzik, 2023). Business process management can be considered in various approaches: in the framework, thematic, organizational and methodological sense (Stabryła, 2022, p. 11). Business process management in the framework sense means an area of knowledge and practical managerial activity that applies to organizations configured in multiple dynamic systems, taking into account the functional and instrumental aspects (Stabryła, 2022, p. 11). In a thematic sense, the following areas of this concept should be indicated: basics of the concept of business process management, formalization of business process management, modeling of business process management systems, diagnostic analysis in business process management, design and controlling of results in business process management, and research on the development of organizational activities in business process management (Stabryła, 2022, p. 12). Business process management in the organizational and methodological sense refers to the field of activity and its functioning (any entity, business unit and the management process, modeling, diagnosis, design) (Stabryła, 2022, pp. 14-15).

Scientific and practical issues of business process management include: effectiveness of business process management systems, development of pragmatics of management processes, process design, improvement and generation of management process instruments (models, methods, techniques, algorithms, strategies, legal and administrative regulations, working procedures) (Trocki, 2014). In addition to process orientation, customer orientation, development and learning orientation, rationality orientation or strategic thinking orientation should also be taken into account.

Business process management makes it possible to adapt to the requirements of the environment and thus creates new opportunities to achieve a competitive advantage. Proper identification of processes, their modeling, implementation, control and improvement significantly affect the profitability of the company, the level of customer satisfaction and consequently competitiveness (Dumas, La Rosa, Mendling, Reijers, 2013, 2018; Chountalas, Lagodimos, 2019). It is also necessary to apply permanent regulations in organizations in the field of the functioning of processes – the so-called process governance (BPM Governance) (Ubaid, Dweiri, 2020). The use of business process management also requires dedicated IT tools, new technologies and building a process organizational culture (Reijers, 2021; Gross, Stelzl, Grisold, Mendling, Röglinger, vom Brocke, 2020; Gudelj, Delic, Kuzmanović, Tesic, Tasic, 2021; Helbin, van Looy, 2021). The use of this concept also makes it possible to achieve significant benefits in terms of streamlining the way the company operates, reducing costs, increasing flexibility, transparency, processes, customer orientation, and improving its competitive position (Reijers, 2021, Gudelj, Delic, Kuzmanovic, Tesic, Tasic, 2021). A holistic approach in this concept focusing on improving the quality of products and processes, shortening the time of process implementation and improving their efficiency, reducing negative impacts, effective communication and building proper relationships between stakeholders. It is important to put into practice a process portal that gives employees access to all processes, descriptions and other resources, by integrating your processes with the tools and applications that employees use (e.g. intranet portals, Confluence, workflow) (BPM, 2023).

The effects of the use of business process management taking into account the strategic level is also insufficiently researched, and as Rummler and Brache emphasize, it is the key approach to the company's strategy through the implementation of processes, which improves its efficiency (Rummler, Brache, 2000, p. 18). Challenges in the soft aspects of business process management, risk management in processes, integration with other management concepts, such as knowledge management or project management are becoming important (Bitkowska, 2019, 2023). The implementation of business process management solutions gives opportunities to make the right decisions and actions, improve the flow of information and identify problems in the organization. It is also crucial to create an appropriate framework (process governance) by building process architecture, i.e. grouping the processes occurring in the company into appropriate categories (categories of basic, auxiliary and management processes). A defined process architecture, perceived as a system of ordering processes in an appropriate hierarchy

along with connections and relationships between them, becomes an important key factor in achieving significant benefits. A certain formalization of the description of the processes themselves is necessary, a more detailed analysis will naturally overlap with the areas of process measurement with particular emphasis on their internal efficiency and efficiency. Constructing process architecture and identifying them is an innovative and creative teamwork for which a special team should be appointed. Business process management is a standard in many industries but managers express concerns about problems with implementing and maintaining the approach and various initiatives undertaken in organizations, in particular the use of new technological solutions.

3. Challenges of business process management initiatives

The subject of the development of process initiatives are very dynamic, as indicated by numerous studies, conducted research and methodologies (BPM, 2023, Tech Trends, 2023). Many instruments and tools to support these solutions are aimed at digitization, robotization and expanding technological knowledge. This is due to the fact that companies place great emphasis on software, applications and tools to support their business process management initiatives. It helps you quickly adapt to changes in processes, requirements and respond flexibly to new business requirements. This enables transparency, accelerates automation activities and provides a basis for action in both strategic decisions and operational activities.

Hyperautomation is one of the most important technological trends. It automates processes, reduces operational costs and improves process efficiency through the use of intelligent tools such as: robotic process automation (RPA), artificial intelligence (AI), process mining and task mining, organizational digital twins (DTOs). Leaders are considering replacing current BPMS tools with more intelligent software in the next few years. Today, technologies are transforming into more predictive technologies through data integration and machine learning. These systems are known as intelligent or AI-based, they use process intelligence technologies, including process mining, task mining, intelligent business process modeling (10 Useful BPM Trends Fueling the Future of BPM in 2023). Business process management plays a key role in the transformation activities of modern organizations, in the context of implementing new technological solutions or redefining the roles of employees. New technological solutions affect the analysis, modeling and optimization of processes, providing end-to-end process transparency, defining key performance indicators, business rules, roles, and documents (10 Useful BPM Trends Fueling the Future of BPM in 2023). An important area is customer-oriented proposals to use the customer journey. In this way, business leaders and change leaders can redesign activities in processes or automate to improve the quality of customer service.

Research carried out around the world has shown that 68% of the surveyed experts estimate that the future importance of their company's business process management will increase significantly (BPM, 2023). The main benefits of business process management for the organization are: transparency of processes through documentation 73%, increased efficiency of work processes 67%, governance (compliance & governance) 55%, improvement of customer orientation 50%. Other benefits include: project support and/or change management 43%, implementation of the company's strategy and its goals 42%, increased product quality 39%, support strategic and operational decisions 36%, increased staff satisfaction 29%, increased speed and flexibility of response to changing conditions 29%, support for innovation and development 27%.

Other studies point to many initiatives and new business process management solutions being implemented in organizations around the world (Harmon, 2020). More than half of the respondents indicated that their organizations will spend more on process projects in the next two years. This applies, among other things, to technologies that are the subject of an organization's pursuit of improving IT tools, their capabilities to support the implementation and design of processes. Process automation, as well as iBPM (intelligent Business process management) stand out as the most preferred directions of technology development, as 58% in relation to artificial intelligence and 57% in relation to user automation are looking for opportunities for development and investment in these areas. In turn, 39% of the surveyed companies are interested in process mining tools, and 38% are interested in business process management and robotization (RPA). The above data show an upward trend in the investment of financial resources in further work on business process management. The main emphasis is placed on the development of process technologies, which significantly contribute to more efficient modeling, implementation or improvement of the processes taking place, also from the customer's perspective.

Artificial intelligence as an element supporting the optimization of processes in various sectors of the economy is becoming more and more widely used. Polish companies spent PLN 1.8 billion on AI in 2024, according to the PMR Market Experts report - Artificial intelligence market in Poland 2025. Market analysis and development forecasts for 2025-2030. It was pointed out that AI is currently the most important element of technological transformation, and experts predict its huge impact on the business sector and the mass market in general (PAP Business, 2024). The report prepared by the University of Warsaw, Accenture and FinTech Poland shows that the impact of artificial intelligence on the economic development of many sectors is growing and by 2035 the growth resulting from its use will be: 3.8% in the service sector, 4.4% in manufacturing, 4.3% in the financial sector, 4% in trade, 3.4% in construction and 3.4% in healthcare (Accenture). According to a 2024 EY study, 43% of companies worldwide are investing in generative artificial intelligence (GenAI) (EY, 2024). Other sources, such as the McKinsey report, indicate that about 72% of companies globally implement various forms of artificial intelligence (McKinsey, 2024). In the small and medium-sized enterprise

(SME) sector in the Central and Eastern Europe region, as many as 90% of companies use AI and machine learning, with one in four companies using these technologies to a significant extent (AI Chamber, 2024). The use of AI in BPM brings numerous benefits, such as increased efficiency, cost reduction, and improved customer experience. The current approach that has guided BPM for decades was shaped during the industrial revolution. It was created as a result of the transition from artisanal production to mass production. Meanwhile, the environment has changed significantly since then, and digital technologies (in particular artificial intelligence) are creating a new technological framework for business process management (Rosemann, 2024). All leading providers of IT solutions supporting business process management use artificial intelligence mechanisms for supporting process modeling, analysis, prediction and implementation of process applications (Gartner). The above indicates that both in the strategic and operational perspective of business business process management, artificial intelligence will be increasingly present. The challenge will not be its implementation, but the way it will be used. The way in which organizations integrate AI mechanisms into the management and implementation of business processes will determine their competitive advantage. Therefore, an interesting research direction seems to be to determine in which elements of BPM artificial intelligence is likely to provide the most benefits to companies of specific sizes, models and scopes of operation.

4. Summary

Business process management plays a key role in the adaptation of modern organizations to the dynamically changing market environment. This approach allows for a better understanding of internal processes, their optimization and integration with modern technologies, such as robotization, artificial intelligence or cloud computing. The article presents key initiatives related to the implementation of process solutions in organizations, indicating their importance in building flexible management structures. The presented research results and practical guidelines can be a reference point for both companies already using the process approach and those that are just planning to implement it. The dynamic development of tools supporting business process management and the forecasted increase in the value of the global market for these solutions emphasize their growing importance in effective management of organizations. Implementing a process-based approach allows not only for better use of resources, but also for increased innovation and the organization's ability to respond effectively to new challenges. Future research should focus on analyzing the long-term effects of implementing business process management and its integration with advanced technologies to further understand its impact on organizational development.

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