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PROCESS ORIENTATION IN PROJECT MANAGEMENT IN COMPANIES OF THE INSTALLATION AND ASSEMBLY INDUSTRY

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Purpose: The purpose of this paper is to provide an overview of the current situation in the management of companies in the installation and assembly industry in the context of process orientation.

Design/methodology/approach: The scope of the article relates to the literature search and the analysis of the situation conducted in companies in the industry. Key aspects in the approach to project management processes that occur in companies in the installation and assembly industry were presented.

Findings: Conclusions on the prospects of using the process approach in companies in the installation and assembly industry were presented. Current solutions and proposals for new implementations were also mentioned. The benefits of introduction and application of process orientation in project management at companies in the above-mentioned industry were indicated.

Practical implications: The article outlines assumptions and the essence of process orientation, and presents practical application in companies

Originality/value: The article focuses on the installation and assembly industry, which is relatively little researched scientifically. The paper is addressed primarily to practitioners implementing projects in the industry and the scientific community dealing with this issue.

Keywords: management, process orientation, project.

Category of the paper: Viewpoint.

1. Introduction

Process orientation is an approach to management in which processes, i.e. activities aimed at achieving specific results, are an essential element (Marciszewska, Nowosielski, 2011). In project management, process orientation focuses on ensuring the smoothness of activities, effective cooperation between teams and optimization of processes to achieve project goals (Gudelj, Delic, Kuzmanovic, Tesic, Tasic, 2021). In the traditional approach to project management, the focus is on completing tasks and meeting specific requirements. Process orientation emphasizes the importance of the management process itself - the flow of information, standardization of procedures and streamlining of activities. This approach makes it possible to improve the work of project teams and increase the efficiency of goal achievement. Companies in the construction industry, and the installation and assembly are part of such a group, are organizations in which project management is the most important element of functioning in both business and financial contexts. Therefore, appropriately adapted to the specifics of the company, processes are an essential element affecting the achievement of business success by these organizations (Gąsowska, 2022). Issues of potential problems encountered in implementing such an approach were also noted. The material presented in the paper is original and addresses issues that are not often focused in the installation and assembly industry. It should be noted that from a scientific point of view, the industry is relatively little studied, and the available literature and scientific studies are rather limited.

2. Research methods and an overview of process orientation and characteristics of the industry

Presented research focuses on an overview and analyzes the role of process orientation in project management. During the research, the attention was focused on conducting theoretical examinations using methods such as analysis and synthesis, among others. The purpose of the review was to determine the current state of processes within project management and their impact on the achievement of business success for companies in the installation and assembly industry (Shamim, 2022). Process orientation generally spotlights on the processes occurring in an organization, rather than on organizational units or functions (Prudzienica, 2011). The overriding goal of this approach is to optimize and standardize activities so that they are as efficient as possible and the organization can achieve its goals with fewer resources. Process orientation plays an important role in the management of organizations, and its application is particularly evident in companies seeking to innovate and adapt to a changing environment.

The origins of process orientation can be traced to the history of production management and labor optimization in factories. Its development was closely related to the evolution of management theory, as well as to the growing importance of efficiency and quality in the activities of enterprises. Many concepts in the field of process orientation have emerged, with various sources of process orientation, including Total Quality Management, Business Process Reengineering and Six Sigma (Czyż-Gwiazda, Burka, 2011). Process orientation assumes that in any organization there are many interrelated processes that affect the final outcome of activities. It should be noted that management maturity is important in the processes occurring in organizations, which, by increasing the flexibility of the organization, directly improves business performance (Sliż, Szelągowski, 2023). In order to effectively manage an organization in a process-oriented manner, it is necessary to understand and allocate the processes that occur in a company. These include the following activities:

- 1. Identify key processes to determine which are most critical to achieving the organization's goals.
- 2. Carry out optimization and standardization to minimize the poor use of resources (time, money, materials) and develop uniform procedures that can be applied across projects.
- 3. Introduce continuous improvement through regular analysis and enhancement.

The pursuit of improved quality, lower costs and higher productivity are key elements of a process orientation in terms of the management approach. The above determinants also apply to project management processes and relate to the concept of a process organization, in which processes are identified, related, measurable and purposefully managed (Bitkowska, 2013).

Process orientation – overview

Process orientation is based on the following key principles:

- 1. Introduce process standardization by identifying and implementing best practices that can be replicated across projects.
- 2. Implementation of activities in which regular analysis and improvement of processes to eliminate unnecessary activities will lead to optimization.
- 3. Smooth and efficient flow of information between all departments of the organization.
- 4. Monitoring of processes for their compliance with established quality standards.

Maintaining the above requirements leads to a number of benefits for the organization related to achieving greater efficiency, higher quality of products or services, transparent and understandable to all, and faster and often proactive response to change or innovation. The relationships between the processes, as well as their interpenetration, are shown in Figure 1.





Source: https://akademiajakosci.com/zarzadzanie-procesowe/

Process orientation derives from the drive for efficiency and optimization that accompanied the development of management. Due to developed methodologies and tools, modern companies can effectively manage their processes, which translates into greater competitiveness, better quality of products and services, and the ability to adapt faster to a rapidly changing market. Today, process orientation is the foundation of modern management, which focuses on continuous improvement and optimization of organizational activities. Process orientation in project management is an approach that focuses on optimizing processes, standardizing procedures and improving information flow (Biesok, 2019). This makes it possible to increase the efficiency, quality and fluidity of project implementation. Implementing this approach allows organizations not only to better manage projects, but also to develop their ability to carry out increasingly complex tasks. As a result, companies can become more competitive on the market, take on more complex tasks for implementation, and optimize costs, resulting in possible price reductions for customers.

Project management - a key area in installation and assembly companies

Project management is one of the key areas of activity of modern companies in the installation and assembly industry. Projects are an essential tool for realizing the long-term strategic goals of the company, and the ability to manage them effectively is indispensable in a dynamically changing business environment and effective and rapid adaptation to market expectations. An important aspect remains the assumption that projects can be implemented as a response to changes in the business environment, allowing the organization to adapt to new conditions. They can also involve changes in organizational structures (Boguszewicz-Kreft, Gmińska, Sokołowska, 2015). The installation and assembly industry is generally characterized by the use of a narrow and duplicated group of solutions in the field of project management methods and methodologies, which is primarily due to the fact of high specialization in terms of personnel and technologies used. The above determinants additionally affect the low ability of most companies in the industry to significantly change their business profile, as this involves a series of decisions and changes of a financial nature.

Project management is a major revenue item in companies in the installation and assembly industry, since projects and their implementation are the basic financial foundation of companies in this industry. It also plays a decisive role in achieving strategic goals and adapting to market changes. Also, the selection of personnel, as well as improvements in other resources, run in close correlation with the projects carried out in the organization. Therefore, the importance of project management in companies in the installation and assembly industry is primarily related to the optimization of resources through their effective use in the planning and allocation processes, as well as the minimization of risks. It also involves striving for precise definition of objectives, which allow the implementation team to predetermine the needs and define the most important elements of the project. The next important stage of project management is planning, which involves defining the scope of the project, the schedule of activities, the budget and the resources that will be needed to carry out the project. This stage also identifies potential risks and develops strategies to manage them. Throughout the project management process, companies must also focus on effective team management project using various competencies and skills, monitoring and controlling progress, checking any deviations, or making adjustments. The final activity remains the evaluation of the project, during which all stages and elements of this activity should be analyzed, which allows for the improvement of management processes in the future. Meeting the above requirements, as a rule, should increase the operational efficiency of the organization, though, among other things, the expedient use of resources, more effective management of change or the propensity for innovative activities.

There are numerous challenges when it comes to project management for companies in the installation and assembly industry. The more complex the project, the more difficult it is to manage it effectively. Due to the coexistence of many aspects related to technology, projects in the industry require both technical knowledge, as well as coordination skills and practical risk and resource management skills (Knauf, 2015). Most projects in the industry are often carried out under time and budget pressure, and short timelines in schedules or insufficient resources can lead to delays, financial overruns or reduced quality. Within project management activities, the industry is characterized by a large number of stakeholders - clients, investors or employees. Managing their expectations, as well as communication between them, can be a challenge, especially if stakeholders have conflicting goals or expectations (Morgan, 2005).

It should be noted that project management is a major area of activity in companies in the installation and assembly industry. It has a significant impact on efficiency, innovation and adaptability of the organization to market changes. Effective project management in a company allows better use of resources, minimizes risks and leads to the achievement of the organization's strategic goals. For companies in the installation and assembly industry, project management is a business foundation without which organizations cannot function. Therefore, it remains extremely important to adequately use both the appropriate tools and methodologies for project management, as well as to understand the need to use processes. Meeting these conditions undoubtedly however, it enhances companies' operational capabilities, especially in terms of how they respond to the changing business environment.

3. Conclusions

Process orientation in project management is an approach that emphasizes understanding and optimizing processes that make up a project (Bitkowska, Weiss, 2017). Thus, a project is treated not as a set of isolated activities, but more as a workflow, interdependence and continuous improvement. Project management has traditionally focused on task and resource management, while process orientation introduces a more structured approach to managing the various stages of project execution (Szczepaniak, 2017). At the core of this approach is the identification of processes, their analysis, optimization and monitoring. The application of process orientation enables systematic and more efficient project management, with an emphasis on harmonious flow of activities. In projects, processes can be understood as a sequence of steps that lead to the achievement of a specific goal. Each project can therefore be broken down into a series of processes, such as planning, resource allocation, risk management, communication or quality control. With a process orientation, projects become more transparent and their implementation more efficient.

In terms of project management, the key steps in line with the process orientation are:

- Process mapping which involves identifying all activities in a project, determining their sequence and interdependencies. These steps provide a better understanding of how different activities affect each other and which steps are critical to the success of the overall project.
- 2. Standardization of processes implemented through the introduction of repeatable procedures and methodologies for project implementation, which is an important element of process orientation ensuring implementation in accordance with best practices.
- 3. Workflow management, i.e. focus on the optimal flow of activities and resources within the project, automation of some processes, which implies reduce project time, reduce errors and improve communication between team members.
- 4. Continuous process improvement using optimization tools.
- 5. Risk management by systematically identifying, analyzing and managing risks at the process level, which allows rapid response to potential risks and minimizing their impact on the project.
- 6. Quality control to identify problems and eliminate them early in the project, minimizing the risk of errors and corrections in the final phase.

The key elements of process orientation in project management are shown on Fig. 2.



Figure 2. Key elements of process orientation in project management. Source: https://mfiles.pl/pl/index.php/Podej%C5%9Bcie_procesowe/

In terms of implementation, attention should be paid to tools that support process orientation in project management (Romanowska, 2004). An important role is played by BPM (Business Process Management) systems, which allow modeling, automation, monitoring and optimization of processes within a project. Their importance is particularly important in terms of automating repetitive tasks, managing resources and responding more quickly to changes in the project. Workflow diagrams (flowcharts), on the other hand, provide a visual representation of the processes in a project. They make it easier to understand the sequence of activities and identify critical points that are crucial to project success. Agile and Scrum methodologies significantly support process orientation. Their approach involves regular and systematic monitoring, evaluation and improvement. This allows project teams to respond quickly to changes and improve task completion processes. Modern IT tools play a key role in process orientation. Project management tools make it possible to monitor progress, manage resources and assignments, communicate internally and externally, and automate certain processes. With them, you can better control the course of the project, including by tracking the performance of individual processes, which affects the efficiency of implementation (Trzcieliński, Adamczyk, Pawłowski, 2013).

The benefits to the installation industry of using process orientation in project management are primarily transparency and control over the course of implementation. This is because process orientation makes it possible to track progress, as well as identify bottlenecks. It also has a positive impact on the organization's knowledge management by applying procedures to protect intellectual property (Ha, Lo, Suaidi, Mohamad, Razak, 2021). Process optimization improves efficiency and saves resources, so organizations can execute projects faster and more efficiently. Automating and standardizing processes also reduces the risk of wasting time and resources, which is especially important in large projects with limited budgets. Processes that have been optimized and organized in a logical way allow tasks to be performed more efficiently, while the reduction of redundant steps and better organization of teams contribute to shorter project times and lower costs. Through quality checks at each stage of the process, projects implemented with a process orientation tend to be more compliant, while regular process analysis makes it possible to quickly identify errors and implement appropriate changes related to the customer requirements, market conditions or internal problems. Companies in the installation and assembly industry are particularly sensitive in terms of potential risks. Therefore, risk management, especially through process identification and monitoring, allows for earlier detection of potential risks. This approach allows the implementation of appropriate preventive or corrective actions. This allows a more proactive approach to problems and a faster response to potential difficulties (Bitkowska, Sobolewska, 2020). The use of the process approach in project management in companies in the installation and assembly industry can therefore lead to an increase in the operational efficiency of these organizations, thereby achieving more business and financial goals.

4. Summary

Process orientation in project management is an approach that allows better understanding and optimization of project activities (Orieno, Ndubuisi, Eyo-Udo, Ilojianya, Biu, 2024). It also allows the application of numerous optimizations within the operation of companies. The analysis presented was based on a literature search of the topic and case studies of companies in the industry were used. In companies in the installation and assembly industry, the main benefit of introducing and applying process orientation remains faster and more flexible response to change, greater efficiency and optimization of resources, as well as more effective risk management. These aspects of project management also make it possible to carry out more complex tasks, where traditional management would require more effort and resources. They therefore provide real benefits both operationally and financially. Through process mapping, continuous improvement, automation and standardization, organizations can execute projects more efficiently, respond more quickly to changes and deliver services or products that are more customized to the customer's needs. It should be noted that the introduction of process orientation in companies in the installation and assembly industry also brings particular benefits of scalability, which flows into replication in other projects. Standardized procedures allow in new tasks for faster execution with more precisely defined risks. This makes organizations more flexible and ready to manage more projects simultaneously. It should be noted that the implementation and subsequent use of a process approach to project management is fraught with numerous difficulties. Particularly common difficulties include financial factors, including the cost of implementation and staff training, as well as personnel factors related to team members' attitudes toward new solutions or changes. The presented overview of applied process-orientation solutions in the management of installation and assembly companies can provide guidance for application in companies in the industry with the aim of improving operational efficiency, thereby influencing the improvement of the performance of these organizations. The most important limitations to using such solutions are relate to the human factor, including resistance or reluctance to implement changes and the additional costs associated with implementation (Castro, Dresch, Veit, 2020). The review identified the direction of the current status in the industry's companies, as well as the benefits of potentially implementing process orientation solutions. Despite the numerous limitations, the balance of benefits of such solutions argues in favor of implementing the methods in the practice of companies in the industry. The information obtained and recommendations for application can be applied to companies in the industry to improve the operational efficiency of companies, which indirectly improves the business performance of these organizations.

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Materials, results and considerations presented in this article are a prologue to the future empirical studies and will be included in later deliberations.

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