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THE APPLICATION OF A PROJECT-BASED APPROACH TO THE IMPLEMENTATION OF INNOVATIVE QUALITY MANAGEMENT SYSTEMS IN INDUSTRIAL ENTERPRISES

The introduction of an innovative quality management system at an industrial company should be considered not as a set of isolated management measures, but as an independent management project with clearly defined objectives, timelines, resource constraints, expected outcomes, and performance quality requirements. This logic is directly consistent with approaches in which the activities of a modern organisation are described as a set of business projects, and a project is interpreted as a unique set of coordinated actions aimed at achieving a predetermined result within established timeframes and budgets. This is particularly important for an industrial enterprise, as changes in quality affect not only documentation but also technologies, organisational structure, staff qualifications, information flows, and methods of process control.

Project management enables the structuring of quality-related work, replacing general statements with managed phases and clear monitoring of results. Academic works on the management of high-tech enterprises emphasise that the application of a project-based approach ensures the systematic organisation of activities by aligning objectives, resources and results, and also enhances the effectiveness of implementing complex innovative changes through the coordination of actions and the use of modern management and information tools [2]. In a quality management system, this logic is fundamental, as it allows not only a formal commitment to compliance with standards but also the establishment of a controlled trajectory of change: from the decision to launch a project to the verification of achieved results and corrective actions. This is precisely why implementing a QMS in an industrial enterprise should be viewed as a structured cycle of organisational development rather than a one-off certification campaign.

The main advantage of the project-based approach in this area lies in the strategic alignment between the QMS and the organisation's overall development model. The introduction of a QMS is an integral part of the overall enterprise management system and involves aligning quality objectives with management priorities, adopting a customer-oriented approach, and ensuring staff participation in quality assurance processes in line with modern standardisation approaches [2]. Thus, the innovative nature of the quality management system lies not only in the upgrading of control tools, but also in refocusing the entire management system towards a process-oriented, customer-focused, and fact-based approach to decision-making. The innovation of QMS is also demonstrated by the use of digital tools for monitoring, process automation, and data analytics, which ensure more effective decision-making and greater transparency in quality control. In this way, QMS becomes a mechanism for strategy implementation, and the project-based approach serves to establish it at the process and role levels.

In such a project, a special methodological role belongs to cause-and-effect analysis. The authors of the article on the development and implementation of a QMS propose using Ishikawa’s diagram as a tool for structuring the factors, causes, and consequences that determine the success or failure of a project. The visualised model covers a sequence of stages, from project design and organisational structure planning to prior and continuous monitoring, staff training, the formulation of quality guidelines, implementation, auditing, certification and the further development of the system [2]. This means that the project-based approach allows not only for planning actions but also for identifying key influencing factors, seeing the interactions between decisions and outcomes, and minimising the risk of formal rather than real implementation of the QMS. For an industrial company, where errors have technological, financial and reputational consequences, such logic is fundamentally important. The organisational dimension of the QMS implementation project is no less important than the methodological one. It involves appointing a quality management representative, establishing a coordination committee, and, where necessary, a separate department or the role of a quality manager.

Such a structure ensures the distribution of responsibility among process owners, horizontal coordination and a direct link to senior management. This is particularly important for industrial enterprises, as quality is shaped at all stages of operations, not just at the control stage.

The organisational component of the QMS introduction project is no less important than the methodological one. It involves the appointment of a quality representative from senior management, the establishment of a coordinating council, and the creation of a separate department or position for a quality manager. This structure ensures the allocation of responsibilities between the process owners, horizontal coordination and a direct link to senior management. This is particularly important for industrial companies, as quality is shaped at all steps of the process, not just at the control step.

The preparation phase is important, as it determines the system's ability to function effectively. Monitoring, data collection, workload assessment, planning and staff training are the basis for change. The effectiveness of training depends on the selection of methods and content that align with employees' roles. This confirms that an innovative QMS begins not with certification, but with preparing staff to work within the new process logic.

An important component is the project's documentation structure. The Quality Manual serves as the key document that defines quality policy, processes, standards, and instructions. This ensures the transition from separate regulations to a coordinated system of management documents and uniform rules for process implementation. Following the introduction, internal audits, management reviews and certification preparation take on particular importance. In this way, the project-based approach provides not only for the creation of the QMS, but also for its control and further development.

The specific nature of the industry is particularly evident in the fact that quality here is directly linked to the reliability of processes, the level of losses, the speed of rectifying deviations, and the stability of customer service. In the industry example provided, according to research estimates, average electricity losses in EU countries stand at around 5%, in Ukraine at around 12%, and in DTEK Networks Group companies at around 8%; at the same time, insufficient investment in the grid and the long duration of power cuts are directly linked to the need to modernise the business model, digitalise operations and implement investment projects [1].

This example is significant not in itself, but as confirmation of a general conclusion: in industrial enterprises, a quality management system should be designed around specific operational indicators, risks and processes, rather than around a formal set of procedures. This is precisely why the project-based approach is the most suitable model for implementing an innovative QMS in an industrial environment.

Consequently, the application of the project-based approach to the implementation of innovative quality management systems in industrial enterprises should be regarded as a rational form of managing complex organisational changes. Its advantages lie in the strategic alignment of quality objectives with the enterprise's mission, the formalisation of stages and responsibilities, the use of cause-and-effect analysis, the establishment of a dedicated organisational infrastructure, phased staff training, systematic documentation, continuous monitoring, auditing, certification and the further development of the QMS. For a modern industrial enterprise, the innovative nature of such a system is determined not only by its compliance with the standard, but above all by its ability to improve process controllability, reduce losses, enhance adaptability to risks and transform quality into a real tool for competitiveness.

References

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