

Process Management Model of a Control System in Organizations Providing Quality Services for the Automotive Industry

Milan Ďuračka

VSB – Technical University of Ostrava, Faculty of Materials Science and Technology, 17. listopadu 2172/15, 708 00 Ostrava-Poruba, Czech Republic

Abstract: The article addresses the issue of the effectiveness of corporate control systems in the environment of the automotive industry. It presents a proposal for an innovative model of process management and control based on an analysis of the current state, contextual interviews, and process mapping. The aim is to demonstrate that control does not necessarily have to be perceived as a repressive tool, but rather as a motivating element supporting organisational improvement and development. The paper presents the results of the implementation of new process and audit procedures in a company providing quality-related services for OEMs, as well as their contribution to internal efficiency, transparency, and overall quality.

Keywords: Control system, internal audit, process management, quality, automotive industry

1. Introduction

In the organization that is the subject of this research and for which the study is intended to provide practical benefits, an inadequately configured and process-inefficient control system was identified. Its current form does not ensure the required level of reliability, transparency, and feedback necessary for effective quality management. For this reason, the topic was selected as the subject of systematic analysis with the aim of examining the existing situation, identifying deficiencies, and proposing improvements with an emphasis on practical applicability.

The examined organization has undergone a recertification audit of the quality management system according to ISO 9001:2015, and the system is implemented and maintained in accordance with the requirements of the standard. The quality management system applies to the main operational and supporting processes of the company and covers the entire scope of its activities.

The company operates within the supply chain as a subcontractor providing services for industrial customers, with a strong emphasis on maintaining stable quality, fulfilling contractual requirements, and building long-term cooperation with business partners.

The main objective of the study is the optimization and modernization of the control system in a private company operating in the automotive industry. The partial objectives include the analysis of the current state, identification of the causes of inefficiency, and the proposal of measures that will contribute to improving management quality, process transparency, and the overall performance of the organization.

A substantial part of the outputs was developed in close cooperation with the company's management and the quality department team.

2. Control as a Managerial Function

Control represents one of the fundamental managerial functions required at all

levels of management. Its purpose is the timely and efficient identification, analysis, and evaluation of deviations that occur within a managed process and that characterize the difference between the intended objectives and their actual implementation [1]. Control is as important as planning, organizing, staffing, and leading people, and it is closely linked to the planning function. It serves as a balancing factor and feedback mechanism between the expected and the target state. The purpose of controlling is to detect both positive and negative deviations in the managed process in a timely and efficient manner, representing the difference between the intended objective and its realization, to ensure their proper evaluation and development, and to enable the adoption and implementation of appropriate conclusions.

Controlling as a managerial function in an enterprise includes all activities used to determine whether achieved results correspond to the planned objectives. Essentially, controlling consists of verifying whether everything is proceeding in accordance with the adopted plans, issued instructions, and established principles.

In essence, control is a highly personal matter and often represents one of the most conflict-prone situations in management practice. It is frequently accompanied by tension between the subject and the object of control, and employees often perceive the act of control as an expression of distrust or suspicion. The reason for this perception lies primarily in the fact that control is often understood as a tool of punishment, intimidation, or enforcement, following the principle *"find a fault and punish"*. When control is perceived in this way, it becomes unpopular and acts as a demotivating factor. It may suppress personal initiative, hinder individual development, and limit creative work [2].

The term control is probably one of the most poorly defined words in the English language, as it carries a wide range of meanings. Differences in interpretation range from restriction and prohibition to regulation and manipulation [3]. Control is usually a one-time activity, whereas controlling represents a managerial function that encompasses the execution of individual control activities or their systematic arrangement into a control system. Controlling therefore represents a continuous process involving the design of standards, performance measurement, comparison of actual performance with established

standards, and the implementation of managerial measures aimed at ensuring the effective and efficient operation of organizational activities.

When performing control activities, managers should follow several key principles:

a) Control strictly but discreetly; whenever possible, carry out the control personally and discuss its results only with the concerned employee.

b) Demand performance but also be able to provide support; do not lower the standards of control, while at the same time creating sufficient conditions for their proper fulfilment.

c) Apply the principles of feedback; be specific and focus on work performance rather than the personality of the employee.

d) Encourage improvement and emphasize opportunities for development rather than focusing only on mistakes.

e) Do not perform control merely formally, without personal engagement or understanding of people and their values.

f) Do not conduct control without drawing clear conclusions.

g) Be more of a counsellor than merely a judge [4].

This approach to control activities places increased demands on managers in terms of both theoretical knowledge (for example, understanding aspects of psychology) and practical experience (such as communication skills) within this area of managerial work. On the other hand, it contributes to creating a positive working atmosphere, supports courage and initiative, improves work performance and quality, and fosters a constructive relationship between managers and their subordinates.

Controlling can therefore be understood simultaneously as a managerial function that ensures feedback between organizational objectives and achieved results. In practice, this function is implemented through a control process consisting of individual control activities such as measurement, comparison, and the implementation of corrective actions. Modern approaches to quality management emphasize the importance of digitalization, data analytics, and the integration of process management into the concept of Quality 4.0. This concept connects traditional quality management principles with digital technologies, internal auditing, and risk management in order to increase organizational efficiency and support the continuous improvement of processes [5][6].

2.1. Organizational Control Systems

For a company, enterprise, or organization to function effectively and sustainably, controlling is essential. Similarly to any individual performing an activity aimed at achieving a specific goal, organi-

zations require information about the manner, correctness, and consequences of their actions. They also need a form of reflection that mirrors reality. In management practice, this role is fulfilled by the control function.

A control system is usually defined as a set of elements consisting of subjects and objects of control that are interconnected through various relationships. These elements and their interconnections form the structure of the control system. In addition, the control system is characterized by specific inputs and outputs that primarily have an informational nature.

Control systems are required to be adaptable and capable of responding to dynamic changes in the organizational environment. Depending on these changes, appropriate types and methods of control must be selected and applied [7].

The elements of a control system can be divided into subjects of control and objects of control. Subjects represent the entities responsible for performing control activities. These typically include managers, specialized departments within enterprises, and dedicated control units. Objects of control represent the areas or processes that are subject to control. Essentially, this includes all aspects related to human work as well as the functioning of technical and social systems. At the top management level, the object of control typically involves monitoring the fulfilment of the adopted management philosophy, the achievement of the company's strategy, and the evaluation of overall business performance. [8].

Internal control systems represent a fundamental mechanism for risk management and ensuring the correctness of organizational processes, while internal auditing provides independent and objective assurance regarding their adequacy and effectiveness. Internal audit evaluates not only compliance with regulations but also the quality of organizational management, the effectiveness of control mechanisms, and the organization's ability to achieve its strategic objectives [9].

Self-assessment represents a systematic process through which organizations evaluate their performance and the maturity of their management systems based on defined models, with the aim of identifying areas for improvement [10]. While internal audit provides independent assurance regarding the functioning of control systems, self-assessment supports organizational learning and strategic

performance improvement [11].

2.2. Control Processes

The purpose of the control process is to determine whether activities are carried out according to the plan and without significant deviations. The objective of control is to focus on and evaluate the quantity and quality of the results of activities and, in the case of undesirable deviations between the actual situation and the planned state, to adopt appropriate measures to eliminate these deviations. Control can be understood as a reflection of the plan. In general, it is defined as a process of understanding and influencing planned activities in order to ensure that actual performance achieves the expected objectives [12].

2.3. Levels of Control

The nature of control processes within a company varies depending on the level of management. Top management primarily deals with strategic control processes, while lower management focuses on operational control activities. Strategic control addresses the overall direction of the company, the evaluation of strategy, the quality of top-level decision-making, relationships between individual organizational units, overall business performance, and the company's interactions with the business environment [13].

3. Research Methods

3.1. Content Analysis

The content analysis method was applied to assess the functionality of the control system in the analysed organization. Data collection was carried out through contextual interviews and the analysis of internal documentation and data from the company's information system.

Interviews were conducted with company owners, management, and employees responsible for individual processes, each lasting a maximum of 30 minutes. They focused on identifying the actual functioning of control mechanisms in practice.

A total of 248 internal documents (directives, procedures, process documentation, forms, and templates) were analysed. A coding framework based on the "present / absent" principle was applied, enabling the identification of gaps in the control system, particularly: unclear definition of control points, missing documentation and weak linkage between processes and control activities.

The output of the analysis was the document

"Control Points," which served as a basis for the proposed system optimization.

3.2. Description of the Contextual Interview Method

The contextual interview method was used to understand how processes and control mechanisms function directly within the real working environment. It represents a creative research approach [14] that enables capturing actual behaviour in context.

Interviews were conducted at respondents' workplaces (offices and operational sites) and involved company owners, management, and process specialists. The method is based on four key principles [15]: focus on real context and conditions, open and collaborative communication, linking findings to organizational processes and systematic recording and interpretation of data.

The interviews were primarily semi-structured, complemented by unstructured elements to uncover hidden issues. Data collection continued until saturation was reached. The collected data were analysed using the "present / absent" coding approach.

The method enabled the identification of key deficiencies: discrepancies between formal and actual processes, weak integration of control activities with quality management, absence of systematic evaluation and limited use of findings for improvement.

The results provided a foundation for proposing organizational changes and defining a strategy focused on customer satisfaction, compliance with legislative requirements, and meeting owners' expectations. At the same time, it was confirmed that systems and processes should be designed to support the organization, not vice versa.

3.3. Description of the Mind Mapping Method

The mind mapping method represents a supportive tool for creative thinking and information visualization, which was popularized by Tony Buzan. It is a graphical method of recording knowledge in which key concepts and their relationships are organized into a hierarchical structure that originates from a central theme.

Mind maps enable the visual representation of relationships between individual elements of a system and support the systematic organization of information. Within the research, they were used to visualize the interconnections between processes, risks, and control mechanisms within the organization.

The findings obtained from the contextual inter-

views were synthesized using mind maps into proposals for system-level measures, which were subsequently reflected in the structure of the internal control system. The method therefore contributed to the clarity, consistency, and systematic design of control processes within the framework of quality management.

4. Results and Findings

Based on the individual findings, the following conclusions were identified:

- a) *The company lacks a clear and structured control system.*
- b) *There is no clearly defined vision, strategy, and objectives in the area of control.*
- c) *A clear and understandable process map is missing.*
- d) *There is no clearly documented list of control points specifying what should be monitored, at what intervals, by whom, and based on which criteria.*
- e) *The company lacks a structured system of controlled documentation for the Integrated Management System (IMS).*
- f) *The Internal Audit (IA) of the "Order Fulfilment Process" is insufficient with regard to the requirements of ISO 9001.*

4.1. Proposed Recommendations for Improving the Control System

To improve and enhance the control system, a new strategy was proposed, including both long-term and short-term objectives that are measurable, assigned to responsible persons, and defined within specific timeframes. In addition, a new checklist of control points was designed, which will need to be continuously developed and updated in relation to newly emerging processes and evolving requirements.

A new and clear process map was also prepared. This map represents a dynamic management tool that requires systematic administration and a clearly defined process owner responsible for its maintenance and development. At the same time, a structured framework for an Integrated Management System (IMS) was proposed. In accordance with the requirements of ISO standards, new control forms and documentation templates were also developed.

The proposed improvement measures were structured into two implementation scenarios. Scenario A represents a basic (minimalist) implementation variant, which assumes only the essential costs necessary to ensure operational functionality and achieve the required objective in the simplest possible form. In contrast, Scenario B represents an extended implementation variant, which includes

Table 1: Strategy for the Quality Department

Strategy for Quality Control Management				
Scenario A				
	Action	Cost in €	Responsible	Deadline
a)	Orient towards customers and their requirements with a clear policy	1 000 €	Đuračka	1.9.2022
b)	Involve all FTE (Full-time Equivalents) and contractors in delivering quality services	2 500 €	Đuračka	22.9.2022
c)	Systematically improve our processes by updating and adhering to the "Handbook"	1 500 €	Đuračka	13.9.2022
d)	Monitor and map processes	1 000 €	Đuračka	4.9.2022
e)	Create a list of control points for the company	2 300 €	Đuračka	11.9.2022
f)	Implement partially standardized control forms	2 800 €	Đuračka	16.9.2022
g)	Re-start the QS (Quality System) group and the internal audit process	3 700 €	Đuračka	7.9.2022
h)	Document and streamline documentation for ISM (Integrated Management System)	2 400 €	Đuračka	28.9.2022
i)	Implement periodic information updates at branches regarding possible risks	1 200 €	Đuračka	9.9.2022
		18 400 €		

Strategy for Quality Control Management				
Scenario B				
	Action	Cost in €	Responsible	Deadline
a)	Orient towards customers and their requirements with a clear policy	1 000 €	Đuračka	1.9.2022
b)	Involve all FTE (Full-time Equivalents) and contractors in delivering quality services, training	3 500 €	Đuračka	22.9.2022
c)	Systematically improve our processes by updating and adhering to the "Handbook"	1 500 €	Đuračka	13.9.2022
d)	Systematically innovate and work with the process map	3 500 €	Đuračka	4.9.2022
e)	Create a list of control points for the company	2 300 €	Đuračka	11.9.2022
f)	Implement standardized control forms	3 800 €	Đuračka	16.9.2022
g)	Re-start the QS (Quality System) group and the internal audit process	3 700 €	Đuračka	7.9.2022
h)	Document and streamline documentation for ISM (Integrated Management System)	2 900 €	Đuračka	28.9.2022
i)	Implement periodic information updates at branches regarding possible risks	2 200 €	Đuračka	9.9.2022
		24 400 €		

a broader scope of activities, such as higher operational capacities, greater involvement of resources, higher service intensity, and more comprehensive technical and organizational support.

For this reason, the total costs in Scenario B are higher, as this variant includes additional items and a larger volume of costs in key categories compared to Scenario A. A clear comparison of the costs of both alternatives is presented in Table 1 – Strategy for the Quality Department.

Despite the increased costs, the company's management decided to invest in the development of the control system, as the proposed improvements contribute to enhancing the quality of the services provided and increasing the level of control over organizational processes.

4.2. Improvement at the Tactical (Managerial) Level of Control

Within a one-year time horizon, the following measures were proposed:

- a) *To focus on customers and their requirements through a clearly defined quality policy.*
- b) *To involve all employees with permanent employment contracts as well as self-employed contractors in delivering high-quality services.*
- c) *To systematically improve organizational processes through the update and consistent application of the Handbook.*
- d) *To systematically innovate and update the process map.*
- e) *To develop a list of control points for the company.*

The Handbook is a document that regulates the

process of creation, approval, updating, and distribution of directives and forms within the internal management system, including the definition of responsibilities for individual roles (ZOS, Handbuch administrator, management). It serves as a managerial and methodological framework for document management, ensuring a unified format, change tracking, language versions, and controlled publication of documents within the organization.

The control points form represents a systematic internal supervision tool designed for the regular verification of compliance with requirements in areas such as personnel provision, working conditions, documentation management, and adherence to internal quality standards. Its purpose is to ensure the consistency of control activities, demonstrable compliance, and support for continuous improvement of organizational processes.

4.3. Proposal for a Revised Process Arrangement of Control

Based on the conducted process analysis and the findings obtained from contextual interviews, new control processes were modeled and integrated into the updated process map (see Figure 1).

The Bizagi application (particularly Bizagi Modeler) is a free software tool used for business process modeling according to the BPMN 2.0 standard. It enables the creation of process diagrams that visualize activity flows, decision points, and responsibilities within organizational processes.

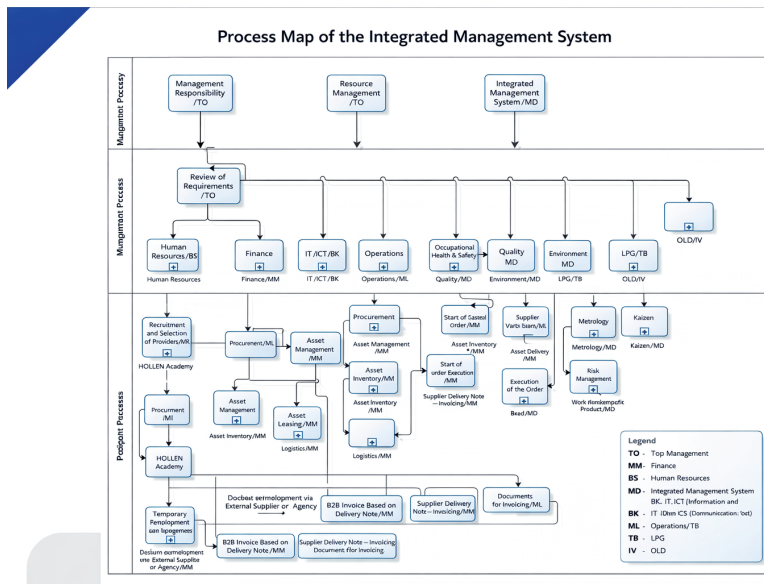


Figure 1: Process Map (author's own elaboration)

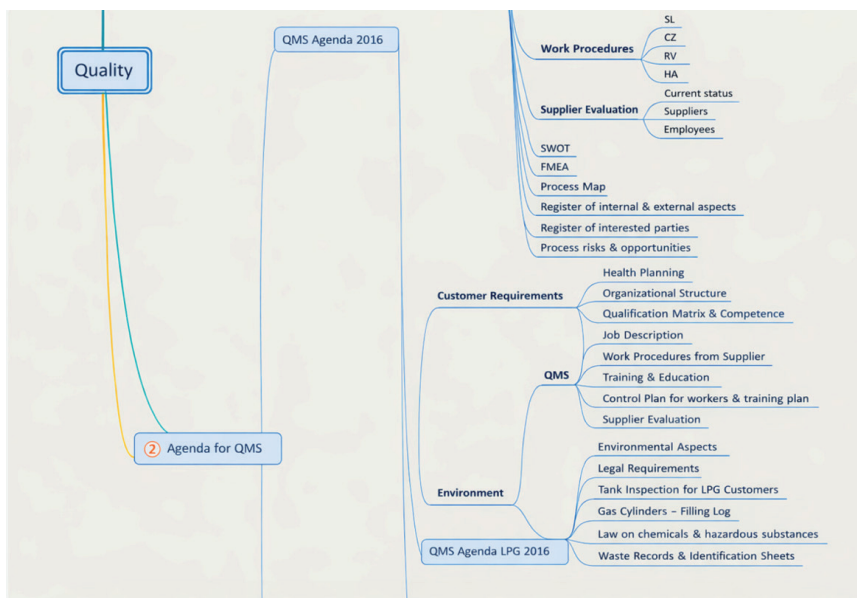


Figure 2: Excerpt from the Documentation Structure (author's own elaboration)

The tool allows users to utilize BPMN elements such as Start and End events, Tasks, Gateways, and Swimlanes to represent individual activities and their relationships. In addition, it enables the attachment of descriptions, documents, and responsible persons to specific activities within the modeled processes.

The tool is particularly suitable for process standardization, the development of ISO documentation and internal directives, audit support, and con-

tinuous process improvement initiatives (e.g., Lean or Kaizen).

4.4. Proposal for a New Structure of Controlled Documentation

A new structure of controlled documentation was proposed for the area of quality management and the integrated management system. The entire documentation set is intended to be stored on the SharePoint platform, and therefore it is necessary to ensure a clear and logically organized structure (see Figure 2).

The figure illustrates only a partial view of the overall documentation structure, while the complete structure was developed using the mind mapping method.

For the development of the documentation structure, the XMind application was used, in which a folder entitled "Quality" was created. Subsequently, a central theme called "Quality" was defined, from which the main branches were gradually developed, such as the Integrated Management System and the Documentation Agenda of the Quality Department.

The structure was further expanded according to individual ISO standard areas, specifically ISO 9001, ISO 45001, and ISO 14001. These areas mainly include standards, internal directives, and procedures related to the respective management systems.

4.5. Proposal for a Revised Internal Audit Process

A process A revised internal audit process was proposed as a key tool to ensure the effectiveness and sustainability of the quality management system (see Figure 3). This approach reflects the transition from traditional compliance-based auditing to data-driven and value-oriented quality management systems, as highlighted in recent Quality 4.0 research [16].

The internal audit system is anchored in the strategic objective of strengthening process transparency and continuous improvement. The quality manager is responsible for preparing an annual internal audit program, which is approved by top management and defines the audited organiza-

tional units as well as the audit schedule. The formal appointment of an internal auditor ensures clear responsibility and supports governance principles in modern quality management systems [17].

At the operational level, audits are conducted based on a structured audit plan that includes the identification of the audited unit, audit scope, timing, required documentation, and list of participants. To ensure preparedness and transparency, the audited organizational unit is informed in advance. This structured approach supports audit standardization and repeatability, which are essential for achieving consistent performance evaluation [18].

The audit itself is carried out by a qualified audit team led by a lead auditor, with the participation of process specialists. The evaluation focuses on key process areas such as order processing, technical documentation, execution of operations, workplace organization (5S), metrology, and occupational health and safety. Emphasis is placed on evaluating the process rather than individual employees, thereby supporting a process-oriented approach to quality management in line with ISO 9001:2015 and its extension within Quality 4.0 frameworks [19].

Audit results are quantified using a point-based system and expressed as an overall percentage score, followed by classification into predefined performance categories. Identified non-conformities, along with proposed corrective actions and assigned responsibilities, are documented in an audit report and communicated to relevant stakeholders. The integration of quantitative evaluation enhances

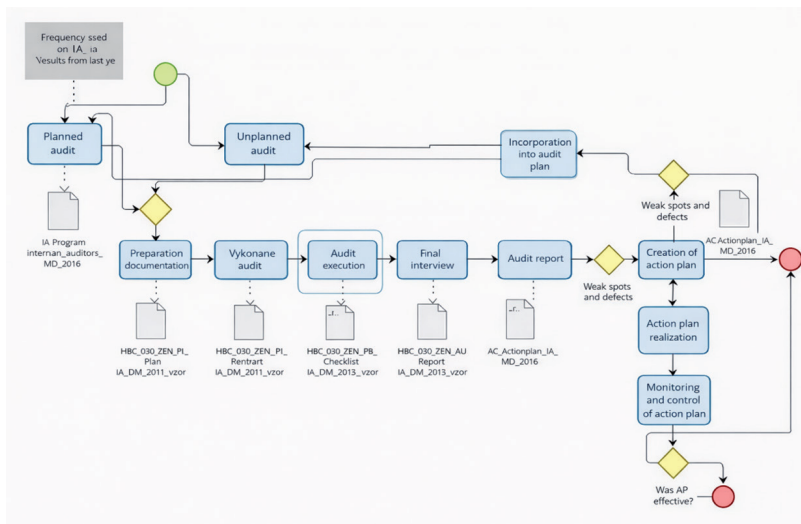


Figure 3: Internal Audit Process (author's own elaboration)

objectivity and enables data-driven decision-making, which represents a key pillar of digital quality management [20].

Follow-up activities are ensured through structured action plans that define tasks, responsible persons, and deadlines. These outputs serve not only for managing corrective actions but also for analytical purposes, such as trend analysis, benchmarking of audit results, and identification of key problem areas. Such analytical capabilities support predictive and preventive approaches to quality, which are increasingly emphasized in Industry 4.0 and Industry 5.0 environments [21].

This integrated approach ensures that internal audits are not perceived merely as a control mechanism, but as a strategic tool supporting continuous improvement, knowledge transfer, and long-term organizational performance, thereby contributing to the development of intelligent and human-centric quality management systems [22].

4.6. Results of the Implementation of the Proposed Model

Based on the pilot implementation of the proposed control system, a measurable improvement in the results of the organization's internal process evaluation was achieved (see Table 2). The average success rate of compliance with internal audit requirements increased from the original 86.6% to 98.4% after the implementation of the proposed measures.

The improvement was achieved mainly in the following areas:

- *clear definition of control points,*
- *systematization of process documentation,*
- *implementation of regular internal audits,*
- *clear assignment of responsibilities within processes.*

The results confirm that a process-oriented control system can significantly contribute to increasing the transparency, stability, and efficiency of the organization.

Table 2: Results of the Implementation of the Control System

Indicator	Before Implementation	After Implementation
Internal audit success rate	86.6%	98.4%
Defined control points	partially defined	systematically defined
Process documentation	inconsistent	standardized
Nonconformity management	reactive	systematic

5. Conclusion

The conducted research confirmed that a control system within an organization can perform a significantly broader role than merely serving as a tool for identifying errors. In the examined organi-

zation operating in the automotive industry, it was demonstrated that an unclear process structure, poorly defined control points, and an insufficiently developed internal audit system led to reduced transparency, inefficient management, and an increased risk of non-compliance with ISO standards.

Using content analysis, contextual interviews, process modeling, and mind mapping, these weaknesses were systematically identified and transformed into specific proposals for improvement. The proposed quality strategy, the newly developed process map, the redesigned structure of controlled documentation, and the revised internal audit process created the foundation for an integrated and sustainable control system.

As a result, control within the organization is gradually evolving from a formal activity often perceived as repressive into a development-oriented management tool. It supports organizational learning, increases employee involvement, and contributes to process improvement across all levels of management. An important outcome of the study is also the shift in the management's perspective, where the need to invest in quality and control was recognized not merely as a cost but as a source of competitiveness.

The practical results indicate that linking strategic, tactical, and operational levels of control, supported by an integrated management system, leads to greater process stability, more effective risk management, and better preparedness of the organization to meet customer requirements and respond to changes in the business environment.

In the future, the established foundation may be further developed through the integration of digitalization, predictive data analytics, and Industry 4.0 tools, which can strengthen the role of the control system as a driver of innovation and continuous improvement within the organization.

Reference

1. VODÁČEK, L. a O. VODÁČKOVÁ. Moderní management v teorii a praxi. 3. rozš. vyd. Praha: Management Press, 2013. ISBN 978-80-7261-232-1.
2. ČAMBÁL, M., A. CHLPEKOVÁ, Z. BABELOVÁ, Z. GYURÁK a Z. LENHARTOVÁ. Manažment podniku. Bratislava: Slovenská technická univerzita v Bratislave, 2013. ISBN 978-80-227-3926-9.
3. EMMANUEL, C. R., D. OTLEY a K. A. MERCHANT. Accounting for Management Control. 2. vyd. New York: Springer

- Science+Business Media, 2013. ISBN 978-1-4899-6952-1.
4. JANKELOVÁ, N. a kol. Manažment. Bratislava: Wolters Kluwer, 2022. ISBN 978-80-7676-263-3.
 5. ANTONY, J., MC DERMOTT, O., SONY, M. Quality 4.0 conceptualization and understanding. The TQM Journal, 2020.
 6. HELMOLD, M., SAMARA, W. Progress in Quality Management. Springer, 2021.
 7. ČAMBÁL, M., A. CHLPEKOVÁ, Z. BABELOVÁ, Z. GYURÁK a Z. LENHARTOVÁ. Manažment podniku. Bratislava: Slovenská technická univerzita v Bratislave, 2013. ISBN 978-80-227-3926-9.
 8. BĚLOHLÁVEK, F., P. KOŠTAN a O. ŠULEŘ. Manažment. Praha: Grada Publishing, 2006. ISBN 80-251-0396-X.
 9. THE INSTITUTE OF INTERNAL AUDITORS. Global Internal Audit Standards. Altamonte Springs: IIA, 2024.
 10. EUPAN. CAF 2020 – Common Assessment Framework. European Public Administration Network, 2020.
 11. OECD. Enhancing Co-operation Between Internal and External Auditors. Paris: OECD Publishing, 2024.
 12. MAJTÁN, M. a kol. Manažment. Bratislava: Sprint 2, 2016. ISBN 978-80-89085-72-9.
 13. CHAN KIM, W. a R. MAUBORGNEOVÁ. Nová stratégia modrého oceánu. Praha: Grada Publishing, 2018. ISBN 978-80-247-6190-9.
 14. ŠPAČEK, M. a K. ČERVENÝ. Kreativní metody v inovacích. Praha: Oeconomica (VŠE), 2020. ISBN 978-80-245-2322-4.
 15. HUME, L. a J. MULCOCK. Introduction: Awkward Spaces, Productive Places. In: HUME, L. a J. MULCOCK, eds. Anthropologists in the Field: Cases in Participant Observation. New York: Columbia University Press, 2004. ISBN 978-0-231-13005-9.
 16. SONY, M., ANTONY, J. a O. McDERMOTT. Quality 4.0: Conceptualization and framework. The TQM Journal, 2020, roč. 32, č. 2, s. 1–19.
 17. ANTONY, J., McDERMOTT, O., SONY, M. a kol. Quality 4.0 and the future of quality management. The TQM Journal, 2022.
 18. CHIARINI, A. Industry 4.0 and quality management: A review. International Journal of Quality & Reliability Management, 2020.
 19. PSOMAS, E. a J. ANTONY. Total quality management practices and organizational performance. Total Quality Management & Business Excellence, 2022.
 20. SREEDHARAN, V. R. a kol. Integration of Industry 4.0 technologies with quality management systems. Journal of Manufacturing Technology Management, 2023.
 21. HELMOLD, M. Virtual and Innovative Quality Management across Industry 4.0. Cham: Springer, 2023.
 22. EUROPEAN COMMISSION. Industry 5.0: A Transformative Vision for Europe. Brussels: European Commission, 2023.

