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From Quality Costing To Strategic Value Creation Through The Evolving Role Of Total Quality Management In Management Accounting: A Systematic Literature Review

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Abstract

This study examines the evolving role of Total Quality Management (TQM) in management accounting, focusing on the transformation of quality costing from operational cost control into strategic value creation. Using a Systematic Literature Review (SLR) approach, the study synthesizes 50 articles published between 2021 and 2026. The analysis explores quality cost management, TQM implementation, management accounting integration, performance measurement, and value creation. The findings indicate that TQM extends beyond defect prevention and cost reduction by connecting quality information with operational efficiency, customer satisfaction, innovation, and strategic decision-making. Drawing on Contingency Theory, the study explains that TQM effectiveness depends on aligning quality practices and management accounting systems with organizational characteristics, technology, strategy, and business environments. This review contributes an integrated understanding of how quality costing informs performance evaluation and strategic decisions, while identifying research opportunities concerning digital quality management, longitudinal outcomes, and cross-industry differences. The findings offer insights for organizations seeking to strengthen competitiveness and sustainable long-term performance.

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Keywords: Total Quality Management, Quality Costing, Management Accounting, Performance Measurement, Strategic Value Creation.

INTRODUCTION

International competition places quality as a strategic factor in maintaining a company's efficiency, reputation, and sustainability. The manufacturing, services, healthcare, and supply chain sectors are required to produce consistent products and services while controlling operational costs. In Finland, the practice of Total Quality Management (TQM) is related to organizational performance and customer satisfaction. Hospital research in Turkey shows the relationship between TQM and financial and operational performance, while Pakistani manufacturing studies link it to environmental performance through organizational culture. The findings affirm the position of quality as the company's main strategic agenda (Olayiwola et al., 2024; Zehir & Zehir, 2023; Khalil & Muneenam, 2021).

In line with these changes, quality costs need to be understood beyond the recording of preventative costs, assessments, internal failures, and external failures. Cost information can help companies assess the consequences of operational decisions, find waste, and determine long-term value improvement investments. The study of TQM in the supply chain emphasizes the assessment of quality actions through lean and agile approaches. Tunisian SME research also links TQM and knowledge management to employee effectiveness. This means that quality costing has the potential to be managerial information to evaluate efficiency and the contribution of quality to value creation (Tavana et al., 2025; Lehyani et al., 2023; Anifowose et al., 2022).

The development of TQM shows a shift towards a holistic approach that emphasizes customer focus, leadership, employee engagement, process management, evidence-based decision-making, and continuous improvement. Construction research in Malaysia identified drivers to overcome barriers to TQM implementation, while a study of the Croatian furniture industry outlined the dimensions of quality practice measurement. In Portuguese SMEs, practices such as benchmarking, employee engagement, product design, and continuous improvement are related to product and process innovation. The findings show that TQM links quality control to innovation, productivity, and the achievement of corporate organizational goals (Alawag et al., 2023; Klarić et al., 2024; Antunes et al., 2021).

The linkage between TQM and management accounting strengthens when companies need measures to translate quality activities into economic and performance consequences.

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Information on failure costs, process effectiveness, productivity, and customer satisfaction helps management set improvement priorities. A meta-analysis found a positive relationship between TQM and organizational performance. In the telecommunications sector, the TQM–SERVQUAL perspective links service quality to customer satisfaction. Meanwhile, Indian manufacturing research shows the role of supply chain quality management and operational agility in connecting digital capabilities to overall organizational performance within the company (Delić et al., 2026; Owusu-Kyei et al., 2023; Sahoo et al., 2025).

Strategic value creation includes environmental responsibility, occupational safety, and organizational sustainability, in addition to efficiency. Companies need to ensure cost savings do not sacrifice safety, the environment, or stakeholder trust. Organizational studies in Saudi Arabia link TQM to occupational safety and health performance. Iranian manufacturing research places TQM as a mediator of the relationship between social responsibility and environmental performance. A study of TQM's integration with Industry 4.0 highlights the importance of dynamic capabilities for the sustainability of business organizations. Thus, quality contributes to the creation of long-term economic, social, and environmental value (Aichouni et al., 2023; Saeidi et al., 2024; Aichouni et al., 2024).

TQM studies are evolving, the discussion is spread according to the context and output of the organization. Research examines the principles of quality, while other studies examine innovation, employee effectiveness, customer satisfaction, financial performance, or sustainability. Technological developments are driving the integration of quality management with data science and artificial intelligence in the manufacturing process. In addition, the study of sustainable quality systems emphasizes the importance of leadership in institutionalizing these practices. This diversity of focus demonstrates the need for a synthesis that connects quality costing, management accounting information, and strategic value creation (Bahr et al., 2026; Silva et al., 2021; Tanane et al., 2025).

Based on these developments, a systematic literature review is needed to examine the development of the role of TQM from quality control to strategic value creation in management accounting. This study maps the research theme, explains the relationship between TQM and cost management and performance measurement, and identifies its contribution to efficiency, innovation, competitiveness, and sustainability. The analysis is directed at the use of quality practices in planning, control, evaluation, and managerial decisions. Cross-sector synthesis is expected to clarify the conceptual developments and research gaps regarding the shift in quality

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costing towards strategic value creation through TQM (Zhang et al., 2021; Alawag et al., 2024; Canbay & Akman, 2023).

LITERATURE REVIEW

Contingency Theory

Contingency Theory explains that the effectiveness of management control and accounting systems depends on the compatibility between organizational characteristics, strategies, technologies, and the business environment. In the context of this study, the theory is used to understand how the implementation of Total Quality Management (TQM) requires a cost information system and performance measurement that suits the needs of the company. The difference in industry characteristics and the operational environment causes the quality management approach not to always produce a uniform impact on organizational performance (Canbay & Akman, 2023; Alawag et al., 2023; Delić et al., 2026).

The application of the contingency perspective also provides a basis to explain the changing needs of management accounting information as companies face technological transformation and sustainability demands. Quality control systems need to be adapted to process complexity, resource capabilities, and organizational strategic priorities. Research shows that Industry 4.0 technology integration influences the application of quality principles, while dynamic capabilities support improved sustainability performance. Therefore, this theory is relevant in explaining the contextual relationship between TQM, cost control, and strategic value creation (Aichouni et al., 2024; Tanane et al., 2025; Silva et al., 2021).

Quality Costing

Quality costing is a cost accounting approach that identifies and measures expenses related to the achievement of quality standards. This concept includes costs of prevention, assessment, internal failures, and external failures as the basis for evaluating the economic consequences of quality activities. This information helps management recognize waste, assess process effectiveness, and determine improvement priorities. In its development, quality cost management is increasingly related to operational efficiency, process control, and overall organizational performance achievement (Tavana et al., 2025; Olayiwola et al., 2024; Zehir & Zehir, 2023).

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The utilization of quality cost information is not only directed at reducing expenses, but also evaluating the economic benefits of improvement investments. Effective quality control can reduce the risk of failure, increase productivity, and strengthen customer satisfaction. Research on manufacturing companies shows that TQM practices are related to employee innovation and effectiveness, while supply chain studies emphasize the importance of integrating quality actions with operational efficiency. This perspective shows the potential of quality costing as information to support managerial decisions and corporate value creation (Antunes et al., 2021; Anifowose et al., 2022; Lehyani et al., 2023).

Total Quality Management

Total Quality Management is an integrated management approach that places quality as the responsibility of all parts of the organization through leadership, customer focus, employee engagement, process management, and continuous improvement. Its implementation is not limited to the inspection of production results, but includes the formation of a culture of quality in organizational activities. Previous research has shown that TQM practices are related to financial, operational, innovation, and customer satisfaction. Thus, TQM becomes an important foundation in integrating quality into company strategy and management (Khalil & Muneenam, 2021; Owusu-Kyei et al., 2023; Zehir & Zehir, 2023).

The development of TQM shows an expansion of the application from conventional quality control to the integration of technology, knowledge, and organizational sustainability. This practice encourages companies to use evidence-based information, strengthen employee competencies, and evaluate processes on an ongoing basis. Research on the Turkish pharmaceutical industry shows the linkage of TQM with knowledge management and sustainability, while construction studies develop a framework for implementing TQM that supports sustainable development. This development confirms that TQM has an increasingly strategic role in dealing with changes in the business environment (Qin et al., 2022; Alawag et al., 2024; Baran & Korkusuz Polat, 2022).

Strategic Value Creation

Strategic value creation describes a company's ability to generate long-term benefits through resource utilization, performance improvement, innovation, and strengthening competitiveness. From a management accounting perspective, value creation requires financial

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and non-financial information that supports the planning, control, and evaluation of strategic decisions. TQM practices contribute through improved process quality, customer satisfaction, and operational efficiency. In addition, the integration of social and environmental responsibility expands the measure of a company's success beyond the achievement of financial benefits alone (Saeidi et al., 2024; Zhang et al., 2021; Aichouni et al., 2023).

The role of management accounting is increasingly evolving as a provider of strategic information to link quality cost control with the achievement of organizational value. Performance measurement, process effectiveness evaluation, and technology utilization allow management to identify opportunities for improvement and consider the impact of long-term decisions. Research shows that the quality of metrics is related to unit confidence and performance, while the integration of digital capabilities with supply chain quality management supports performance improvement. Therefore, TQM has the potential to be a link between quality costing and the creation of strategic value for companies (van Elten & van der Kolk, 2025; Sahoo et al., 2025; Bahr et al., 2026).

METHOD

This study uses the Systematic Literature Review (SLR) method with reference to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to identify, select, evaluate, and synthesize scientific publications relevant to the development of Total Quality Management (TQM) in the perspective of management accounting. This approach was chosen because it allows systematic tracking of research development, as well as providing an overview of the shift in quality management orientation from cost control to strategic value creation. The study is directed at the relationship between quality costing, TQM practices, performance measurement, operational efficiency, managerial decision-making, and organizational sustainability.

The literature sources in this study include scientific publications obtained through the Scopus database and the Web of Science (WoS), taking into account the relevance to the fields of accounting, management, finance, operations, quality control, and sustainability. The publication range is set for the period 2021–2026 to capture the latest developments regarding the integration of TQM with digital transformation, performance measurement systems, and corporate value creation. The literature studied includes empirical research, conceptual studies,

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and systematic literature reviews that discuss the implementation of TQM and its supporting concepts in the modern organizational environment.

In line with the research objectives, the scope of the literature covers several main dimensions, namely quality costing, the application of TQM principles, the integration of quality with management accounting systems, and the contribution of quality management to performance and strategic value creation. The discussion also considers technological developments, organizational innovation, process control, employee engagement, customer satisfaction, and sustainability. The diversity of research sectors and regions is used to gain a broader understanding of how quality practices are applied in various organizational conditions and how the information generated can support managerial decisions.

To obtain publications that are in accordance with the purpose of the study, a literature search was conducted using a combination of keywords grouped based on the focus of the discussion as follows:

1. Literature search using a combination of keywords related to:
   a. Quality cost management, cost of quality, and quality cost control.
   b. Total Quality Management (TQM practices), TQM implementation, and continuous improvement.
   c. Management accounting, performance measurement, and strategic value creation.
2. Initial screening of articles based on title, abstract, keywords, year of publication, and its relevance to the relationship between quality costing, implementation of TQM, management accounting, and strategic value creation.
3. A complete text check to assess the suitability of the article with the inclusion criteria, especially the relevance to the research focus, theoretical foundation, variables analyzed, methodological approach, and the availability of synthesized findings.

The literature selection process is carried out through several stages based on the guidelines of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). These stages include identification of publications using keyword combinations, removal of duplicate articles, screening of titles and abstracts, and checking of complete texts. The inclusion criteria include scientific journal articles for the 2021–2026 period that discuss Total Quality Management (TQM), quality costing, management accounting, performance measurement, and strategic value creation. Meanwhile, publications that are duplicate, irrelevant, nonscientific, or do not meet the completeness of information are excluded from the selection process.

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Based on the PRISMA selection design, 684 publication records were obtained at the identification stage. A total of 108 duplicate records were removed, leaving 576 articles. Furthermore, 397 articles were issued based on the screening of titles, abstracts, and keywords, so that 179 articles entered the full text check. Of these, 129 articles did not meet the eligibility criteria. Thus, 50 articles were obtained that were retained for final analysis. The selected articles were then grouped based on themes, theories, research methods, and their contribution to the development of TQM from quality cost control to strategic value creation. The selection flow is presented in Figure 1.

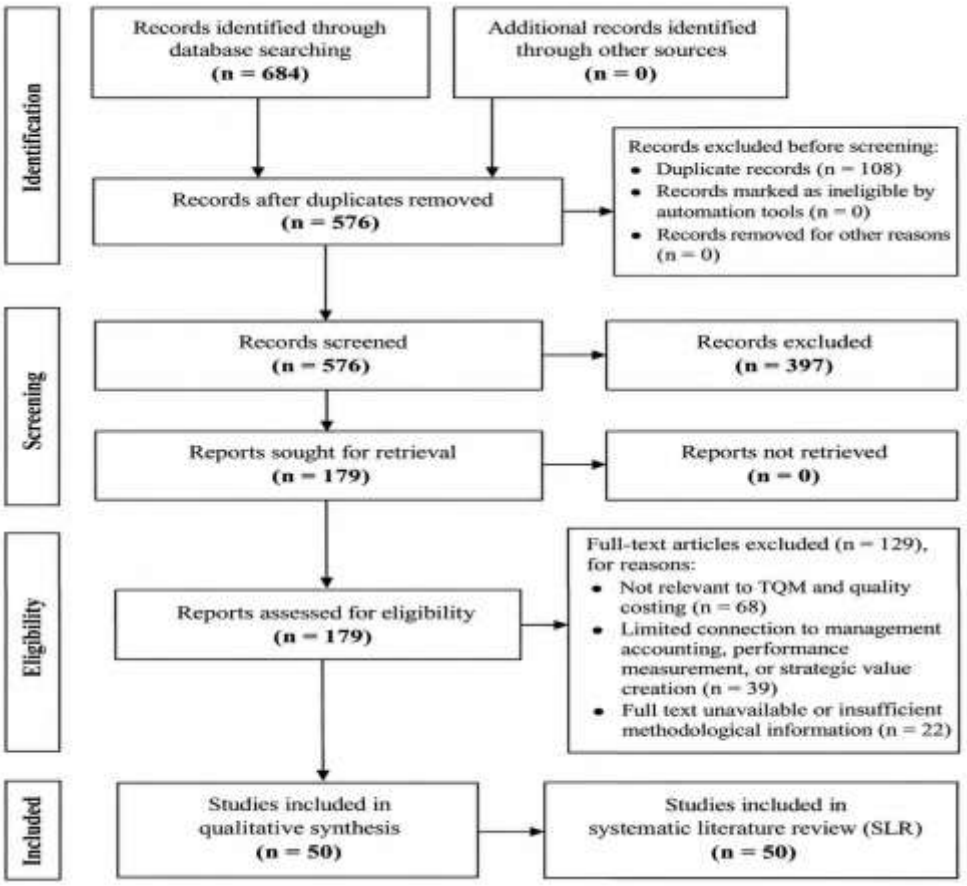


Figure 1. PRISMA Flow Diagram

The distribution of articles based on journal quartiles is used to describe the characteristics of publications that are the basis for the literature synthesis. In the study entitled From Quality Costing to Strategic Value Creation Through the Evolving Role of Total Quality

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Management in Management Accounting: A Systematic Literature Review, the quality and relevance of publication sources are important considerations because this topic links quality cost management, the implementation of Total Quality Management (TQM), management accounting systems, and the creation of strategic value of companies. Therefore, the quartile mapping is compiled to provide an overview of the composition of the literature analyzed, with an emphasis on publications in the top quartile group.

Table 1. Journal Index Distribution

Journal Index	Number of Articles	Percentage
Scopus Q1	31	62,0%
Scopus Q2	11	22,0%
Scopus Q3	6	12,0%
Scopus Q4	2	4,0%
Total	**50**	**100%**

Source : Data processed, 2026

The distribution in Table 1 shows that publications in the Scopus Q1 journal dominate the overall literature with 31 articles or 62%. Furthermore, the Q2 journal includes 11 articles (22%), Q3 as many as 6 articles (12%), and Q4 as many as 2 articles (4%). The composition shows that discussions on Total Quality Management (TQM), quality cost management, and management accounting are found in many reputable publications. The dominance of Q1 and Q2 also shows the strong attention of research on the relationship between quality practices and organizational control and performance achievement.

The distribution of the quartile shows that TQM studies have developed in various scientific publications with different levels of indexing. Q1 and Q2 publications provide the largest portion in the formation of the foundation of synthesis, particularly regarding the implementation of TQM, performance measurement, innovation, and organizational sustainability. Meanwhile, the Q3 and Q4 publications complement the discussion through studies related to the application of quality in a specific organizational context. Overall, this distribution illustrates the dominance of the highly reputable literature in discussing the development of quality management.

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Table 2. Distribution of Research Theories

Research Theory	Number of Articles	Percentage
Contingency Theory	9	18%
Resource-Based View	8	16%
Stakeholder Theory	7	14%
Institutional Theory	5	10%
Agency Theory	4	8%
Signaling Theory	4	8%
Legitimacy Theory	4	8%
Dynamic Capabilities Theory	3	6%
Self-Determination Theory	3	6%
Resource Dependence Theory	3	6%
Total	**50**	**100%**

Source : Data processed, 2026

Based on Table 2, Contingency Theory is the most widely used theoretical basis with 9 articles (18%), followed by Resource-Based View with 8 articles (16%) and Stakeholder Theory with 7 articles (14%). The dominance of these three theories shows that TQM research mostly discusses the suitability of the control system with organizational conditions, internal resource utilization, and stakeholder involvement. Furthermore, Institutional Theory covers 5 articles (10%), while Agency Theory, Signaling Theory, and Legitimacy Theory each account for 4 articles (8%).

Other theories consist of Dynamic Capabilities Theory, Self-Determination Theory, and Resource Dependence Theory, each of which includes 3 articles (6%). All of these theories show a diversity of conceptual foundations in explaining quality management practices. Dynamic Capabilities Theory is related to the adaptability of organizations, while Self-Determination Theory emphasizes employee motivation and involvement. The Resource Dependence Theory explains the relationship between the organization and external resources. This diversity broadens the understanding of TQM as part of the company's resource management, performance control, and value creation strategies.

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Table 3. Distribution of Research Countries

Country	Number of Articles	Percentage
China	6	12%
Malaysia	5	10%
India	5	10%
United States	4	8%
Germany	4	8%
English	4	8%
Indonesia	4	8%
Portugal	3	6%
Finland	3	6%
Saudi Arabia	3	6%
Croatia	2	4%
Tunisia	2	4%
Australia	2	4%
Morocco	2	4%
Turkey	1	2%
Total	**50**	**100%**

Source : Data processed, 2026

The geographical distribution in Table 3 shows that China occupies the highest position with 6 articles (12%). Malaysia and India each contribute 5 articles (10%), while the United States, Germany, the United Kingdom, and Indonesia have the same contribution, which is 4 articles (8%). Furthermore, Portugal, Finland, and Saudi Arabia each include 3 articles (6%). The distribution shows that research on TQM has developed in various economic and institutional environments, with the involvement of Asian, European, American, and African countries.

Other countries, namely Croatia, Tunisia, Australia, and Morocco each contributed 2 articles (4%), while Turkey included 1 article (2%). This geographical diversity shows the breadth of the application of TQM to companies and organizations in various countries. Differences in business environments provide diverse contexts in the discussion of quality cost control, employee engagement, productivity improvement, and performance management. Thus, the

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country distribution provides an overview of the development of TQM research internationally and broadens perspectives on its application in strategic value creation.

Table 4. Distribution of Research Sectors/Industries

Industrial Sector	Number of Articles	Percentage
Manufacturing	9	18%
Health and pharmaceuticals	7	14%
Construction and property	6	12%
Banking and financial services	5	10%
Education and college	5	10%
Logistics and supply chain	5	10%
Cleaning services and services	4	8%
Digital technologies and services	3	6%
Food and beverage	3	6%
Cross-sector companies	3	6%
Total	**50**	**100%**

Source : Data processed, 2026

Table 4 shows that the manufacturing and processing industry sectors rank first with 9 articles (18%). The health and pharmaceutical sectors are in the next position with 7 articles (14%), followed by construction and property with 6 articles (12%). Meanwhile, banking and financial services, education and universities, and logistics and supply chain each account for 5 articles (10%). This composition shows that the application of TQM is widely studied in sectors that have a high need for process standardization, operational control, and quality consistency.

The services and cleaning services sector comprises 4 articles (8%), while digital technology and services, food and beverage, and cross-sector companies have 3 articles each (6%). Differences in sector characteristics show variations in the application of TQM in organizational activities. The manufacturing industry focuses on production efficiency and failure control, while health and pharmaceuticals emphasize safety and precision of service. Construction and logistics are concerned with process coordination and resource utilization, while education and services are more focused on service quality. Overall, TQM is a quality management approach applied to various business and organizational activities.

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DISCUSSION

1. Transformation of Quality Cost Management from Operational Control to Strategic Value Creation of the Company

Quality cost management is the process of identifying, measuring, and evaluating expenses related to efforts to achieve and maintain quality standards. Its scope includes prevention costs, assessments, internal failures, and external failures that provide information about the economic consequences of the quality of products and services. This information not only shows the costs incurred, but also helps management determine improvement priorities and allocate resources more appropriately. Thus, quality costs can be the basis for operational control as well as considerations in long-term business decisions (Tavana et al., 2025; Olayiwola et al., 2024; Zehir & Zehir, 2023).

In this study, Contingency Theory is used to explain that the effectiveness of quality cost management depends on the suitability of the management system to the company's organizational conditions. Differences in technology, scale of operation, product characteristics, and market pressures demand a non-uniform approach to quality control. Therefore, cost information needs to be tailored to the needs of the decision and the organizational context, rather than being applied as a rigid procedure. This framework helps to understand why quality practices can produce different consequences between companies as well as how companies organize controls to align with their strategic objectives (Canbay & Akman, 2023; Alawag et al., 2023; Delić et al., 2026).

The change in the orientation of quality cost management is closely related to the implementation of Total Quality Management as an approach that puts quality in every organizational process. TQM encourages employee engagement, supportive leadership, customer focus, process standardization, and continuous improvement. Through such practices, the cost of failure can be reduced from the moment the source of the problem is identified, while prevention and assessment activities are directed to maintaining consistency of results. Quality is thus no longer seen as the responsibility of the inspection part alone, but rather as part of the way the company runs its operations consistently (Antunes et al., 2021; Anifowose et al., 2022; Lehyani et al., 2023).

When quality cost information is linked to management accounting, its function extends from recording expenses to providing input for planning, performance evaluation, and selecting strategic alternatives. Management can compare prevention costs with losses

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due to failure, assess the results of improvement programs, and determine processes that require investment. The use of such information also helps align quality goals with productivity, innovation, and overall customer needs. Therefore, quality measurement needs to be read alongside operational and financial indicators so that decisions do not only pursue short-term savings (Klarić et al., 2024; Aichouni et al., 2023; Silva et al., 2021).

Overall, the transformation of quality cost management shows a shift from efforts to limit spending towards the use of quality as a source of excellence and company value. It is not enough for companies to simply calculate losses after defects or complaints have occurred, but need to use quality information to design more reliable, adaptive, and sustainable processes. The integration of TQM with technology, organizational knowledge, and process control strengthens these capabilities. Within this framework, quality costs become strategic information that links operational efficiency to competitiveness and long-term value creation (Aichouni et al., 2024; Tanane et al., 2025; Qin et al., 2022).

2. Integration of TQM in Management Accounting and Strengthening Performance Measurement and Strategic Decisions

Management accounting provides financial and non-financial information to plan activities, control resources, evaluate results, and support organizational decisions. In the implementation of Total Quality Management (TQM), it links quality goals to costs, productivity, customer satisfaction, and operational achievements. Performance measurement does not focus enough on the end result, but also needs to pay attention to the processes that shape quality. Thus, the integration of TQM and management accounting allows companies to assess the economic consequences of quality improvement while directing decisions towards organizational goals in a more targeted manner (Tavana et al., 2025; Klarić et al., 2024; Owusu-Kyei et al., 2023).

Contingency Theory explains that the design of management accounting systems and performance control needs to be adapted to the company's strategy, technology, and operating environment. In the context of TQM, the conformity determines the quality information needed, the indicators monitored, and the evaluation that is relevant to decision-makers. Companies with complex production processes may require different measurements of service organizations that are oriented towards customer experience. Therefore, TQM integration does not take place through a single uniform control model, but rather through

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the adjustment of information systems to organizational needs and conditions (Canbay & Akman, 2023; Alawag et al., 2023; Delić et al., 2026).

The integration of TQM into the management accounting system is seen when quality goals are translated into measures that can be monitored and evaluated on a regular basis. Indicators such as defect rates, failure costs, process time, productivity, and customer satisfaction help management understand the sources of irregularities while determining corrective actions. The information also clarifies the relationship between improvement activities and the results achieved by each unit. With connected measurements, quality does not stand as a technical agenda, but becomes part of the organization's directly integrated accountability and control system (Zehir & Zehir, 2023; Silva et al., 2021; Lehyani et al., 2023).

The use of quality performance information helps transform the decision-making process from reactive actions to decisions that consider causes, consequences, and opportunities for improvement. Management can determine investment priorities, allocate resources, improve processes, and assess whether quality programs generate operational benefits that are commensurate with their costs. The support of organizational knowledge and technology expands the company's ability to process such information into internally coordinated actions at the organizational level. Thus, performance measurement serves as a link between TQM implementation, organizational learning, and strategic choice determination (Zhang et al., 2021; Aichouni et al., 2024; Tanane et al., 2025).

Overall, the integration of TQM in management accounting strengthens the company's ability to link process quality with performance evaluations and strategic decisions. Cost information and non-financial indicators provide a basis for assessing efficiency, understanding customer needs, and directing improvements to contributing activities. These relationships are important when companies face the demands of innovation, sustainability, and business change. Therefore, a measurement system aligned with the strategy helps place TQM not just an operational program, but part of organizational management and long-term value creation (Saeidi et al., 2024; Al-Zoubi et al., 2023; Antunes et al., 2021).

3. TQM's Role as a Driver of Competitive Advantage and Long-Term Sustainable Performance of the Company

Competitive advantage is the ability of a company to maintain a better position compared to competitors through product quality, service reliability, process efficiency, and

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the ability to meet customer needs. In the context of TQM, this advantage is built through quality management that involves all organizational functions, not just the inspection of the final results. Consistent process improvement helps reduce errors, strengthen customer trust, and increase the value offered by the company. Thus, quality is part of a competitive strategy as well as the basis for the sustainability of the company's performance in the long term and sustainable (Khalil & Muneenam, 2021; Baran & Korkusuz Polat, 2022; Aichouni et al., 2023).

Contingency Theory explains that TQM's success in forming a competitive advantage is influenced by the suitability of quality practices with the company's internal and external conditions. An effective strategy needs to consider industry characteristics, technology, organizational size, workforce competencies, and customer demands. Because business environments are different, the application of standards and improvement mechanisms also needs to be adjusted so that resources are not used uniformly without considering the operational needs of each company. This conformity helps companies direct quality management to the factors that most determine competitiveness and organizational results in a sustainable manner (Alawag et al., 2024; Sucuoglu & Erdem, 2021; Alqahtani, 2026).

TQM's contribution to competitiveness can be seen through its ability to bring together leadership, employee engagement, knowledge management, and process improvement in a single organizational work system. When these elements are aligned, companies are better able to maintain product consistency, respond to changing demands, and develop innovations that are relevant to customers. Advantages come not only from reduced costs, but also from increased reliability and customer experience. Therefore, TQM can strengthen internal capabilities that differentiate companies from competitors in an increasingly dynamic and competitive market (Lehyani et al., 2023; Antunes et al., 2021; Owusu-Kyei et al., 2023).

Sustainable performance requires companies to maintain economic results while paying attention to environmental impact, resource use, and responsibility to stakeholders. TQM supports these goals by embedding error prevention, process efficiency, and repetitive evaluation into operational activities. This approach encourages organizations to reduce waste, improve safety, and improve the quality of services and products. The integration of quality with the sustainability agenda makes improvement not a momentary activity, but a managerial process that continues to evolve according to the needs of the company and

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changes in its business environment under various industrial conditions (Lee & Lee, 2022; Vassos et al., 2024; Aichouni et al., 2024).

Overall, TQM plays a role as a driver of competitive advantage and sustainable performance when the principles of quality translate into capabilities, performance measures, and consistent decisions. Companies benefit not only through the reduction of failures, but also through strengthening innovation, technology adaptation, and value creation for customers and stakeholders. Long-term orientation arises when quality becomes part of an organization's strategy and culture, so that operational improvement is linked to business competitiveness and sustainability in the face of market changes and the demands of the global future (Silva et al., 2021; Zhang et al., 2021; Al-Zoubi et al., 2023).

4. Research Gaps and Future Research Agendas of the Application of TQM in Management Accounting

The research gap on Total Quality Management (TQM) in management accounting arises when quality management is no longer adequately explained through the success of meeting operational standards. The study needs to explore how information on quality costs, performance measures, and managerial decisions are interconnected in shaping company value. Gaps arise when prevention and failure costs are discussed separately from control systems, innovation, and long-term outcomes. Therefore, the research agenda needs to link quality processes to economic and strategic consequences in a more integrated manner in various organizational contexts (Crisan et al., 2021; Klarić et al., 2024; Delić et al., 2026).

Contingency Theory provides a basis for explaining why the relationship between TQM and management accounting may differ according to the context of the company. Industry characteristics, organizational size, technology, strategy, and environmental pressures influence the form of information and controls required. However, future studies need to examine in a more targeted way the conditions when the quality cost system is most effective in supporting decisions, rather than assuming that one practice applies to all organizations. Cross-sector and country comparisons can clarify the contextual factors that reinforce or limit the contribution of TQM to company performance and value (Alawag et al., 2023; Canbay & Akman, 2023; Al-Zoubi et al., 2023).

The next gap relates to the measurement of TQM benefits that can still be focused on operational indicators or customer satisfaction separately. Further research needs to develop integrated measurements that link quality costs, productivity, innovation, financial

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performance, and sustainability outcomes. These relationships are important to know whether preventive and improvement investments produce lasting benefits, as well as how those benefits are reflected in value creation. The use of longitudinal data and multidimensional indicators can strengthen explanations of the impact of TQM over time in dynamic business environments (Owusu-Kyei et al., 2023; Anifowose et al., 2022; Saeidi et al., 2024).

Technological changes also open up research agendas regarding the integration of TQM with digital systems, data analytics, and knowledge management. The use of technology can accelerate the identification of deviations and provide faster information to management, but the consequences on the quality of decisions and implementation costs need to be examined. Future research can compare organizations with different levels of digital maturity and assess the role of employee competencies and leadership in the utilization of these systems. Thus, digitalization is analyzed as part of a quality management system, not just the addition of technological devices in the company's operational activities (Tanane et al., 2025; Vassos et al., 2024; Aichouni et al., 2024).

Overall, the future research agenda needs to shift attention from testing the implementation of TQM separately to understanding how TQM works through management accounting systems to generate strategic value. Research can integrate quality costs, management controls, organizational capabilities, and sustainability in a single analytical framework. Cross-industry approaches, long-term testing, and a combination of quantitative and qualitative methods will help explain the mechanisms and conditions of success. The direction reinforces TQM's position as an important part of a company's strategic decision-making and the creation of competitive advantage (Qin et al., 2022; Lee & Lee, 2022; Olayiwola et al., 2024).

CONCLUSION

Based on a synthesis of the literature, Total Quality Management (TQM) is an integrated approach that connects quality control with operational processes and company decisions. Quality cost management not only serves to record the cost of prevention, assessment, and failure, but also provides information to evaluate efficiency and determine improvement priorities. In the perspective of Contingency Theory, the effectiveness of implementing TQM depends on the suitability of quality practices with the organizational characteristics,

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technologies, strategies, and business environments that companies face contextually (Tavana et al., 2025; Canbay & Akman, 2023; Delić et al., 2026).

The integration of TQM with management accounting reinforces the use of cost information and non-financial indicators in performance measurement and strategic decision-making. The linkage of quality with productivity, customer satisfaction, innovation, and financial results helps management assess the benefits of improvement more comprehensively. Thus, TQM evolves beyond operational control programs into organizational capabilities that support competitive advantage, adaptation, and sustainable value creation. This role confirms the importance of quality in the company's long-term corporate strategy (Klarić et al., 2024; Owusu-Kyei et al., 2023; Zhang et al., 2021).

RESEARCH LIMITATIONS

This study has limitations because the articles reviewed use various industry contexts, organizational characteristics, and quality indicators. Some studies focus on the implementation of TQM, while others address innovation, customer satisfaction, sustainability, or operational performance. These differences in focus and measurement limit the comparability of findings, especially when quality costs are not explained in detail. As a result, the direct relationship between quality cost management, management accounting systems, and value creation has not always been consistent (Qin et al., 2022; Zehir & Zehir, 2023; Silva et al., 2021).

Another limitation is related to differences in theoretical foundations, research methods, and geographical environment in the articles analyzed. Regulations, technological maturity, organizational culture, and market characteristics can influence the implementation of quality practices. In addition, some studies use surveys or observations in one period so that they do not fully describe the long-term impact of TQM. This diversity needs to be considered when interpreting the relationship between quality practices and company performance in different sectors and countries (Alawag et al., 2023; Anifowose et al., 2022; Olayiwola et al., 2024).

SUGGESTIONS

Further research is suggested to examine the relationship between quality costs, management accounting systems, and value creation within a single empirical framework. The use of Contingency Theory can be expanded by considering company size, technology, strategy, and environmental dynamics as conditions that shape the effectiveness of TQM. Longitudinal

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studies as well as cross-industry comparisons are needed to assess the sustainability benefits of quality investments. Measurements that combine financial and non-financial indicators will provide a more complete picture of the contribution of TQM to company performance (Canbay & Akman, 2023; Delić et al., 2026; Aichouni et al., 2024).

The next research agenda also needs to include the digitization of quality control, knowledge management, and the integration of sustainability in management decisions. Researchers can examine how operational data helps to identify deviations, control costs, and determine improvement priorities. Comparisons of companies with different levels of digital maturity can shed light on the supporting factors and barriers to TQM integration. Studies in the service sector and non-manufacturing organizations are also critical to broaden understanding of the application of quality beyond conventional production processes (Tanane et al., 2025; Zhang et al., 2021; Vassos et al., 2024).

PRACTICAL AND THEORETICAL IMPLICATIONS

In practical terms, companies need to link TQM programs to budgets, quality cost reporting, and management performance indicators. Information on prevention costs, assessments, and failures can be used to determine priority processes and evaluate the benefits of quality investments. Leaders also need to strengthen employee engagement and inter-unit coordination so that standards are consistently applied. These steps help reduce waste, improve the reliability of products and services, and ensure that quality improvements contribute to the company's goals (Tavana et al., 2025; Lehyani et al., 2023; Aichouni et al., 2023).

Theoretically, this study places Contingency Theory as a foundation for explaining the relationship between TQM, management accounting information, and strategic value creation. The effectiveness of quality practices is understood to depend on the suitability of the control system with the characteristics of the organizational environment. Quality cost management can be positioned as an information mechanism that links process improvement, performance measurement, and strategic decisions. This framework expands the testing space regarding the conditions that determine the benefits of TQM for companies in various modern business contexts (Canbay & Akman, 2023; Klarić et al., 2024; Delić et al., 2026).

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