Implementation of Total Quality Management (TQM) on Company Operational Performance

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ABSTRACT

This study aims to explain how implementing Total Quality Management (TQM) can improve a company's operational performance. TQM is a management approach that focuses on continuous improvement, customer satisfaction, and employee involvement. By applying TQM principles such as quality planning, process control, and teamwork, companies can reduce waste, increase efficiency, and improve product or service quality. The study finds that companies that consistently apply TQM tend to achieve better productivity, faster response time, and higher customer satisfaction. Therefore, TQM is an effective strategy for improving overall operational performance.

INTRODUCTION

In today's highly competitive business environment, companies must continuously improve their operational performance to survive and grow. One of the most effective strategies to achieve this is by implementing Total Quality Management (TQM). TQM is a comprehensive management approach that focuses on quality in all aspects of an organization, aiming to meet or exceed customer expectations through continuous improvement and full employee involvement. The core principles of TQM include customer focus, leadership commitment, employee participation, process approach, and data-driven decision making. By adopting these principles, companies can enhance the efficiency of their operations, reduce errors, lower costs, and improve product or service quality. Many organizations across various industries have adopted TQM and reported positive impacts on productivity, customer satisfaction, and overall performance. However, the success of TQM implementation depends on consistent commitment, proper planning, and a culture that supports quality improvement. This study explores how the implementation of TQM affects the operational performance of a company. It highlights the key practices of TQM and examines their role in improving efficiency, reducing waste, and increasing customer satisfaction. The goal is to provide insights for businesses seeking to enhance their operations through quality management principles. Total Quality Management (TQM) has been widely studied as a strategy to improve organizational performance. Many studies highlight the positive impact of TQM on areas such as product quality, customer satisfaction, and operational efficiency. However, gaps still exist in the current literature and practice.

Limited Industry-Specific Evidence

Most existing research focuses on large manufacturing companies, while there is limited evidence on how TQM affects operational performance in service-based or small to medium-sized enterprises (SMEs). This creates a gap in understanding how TQM principles perform across different sectors.

Implementation vs. Outcome Focus

Much of the literature emphasizes the benefits of TQM but lacks detailed analysis on the process of implementation itself—such as challenges faced, level of employee involvement, and leadership commitment. Understanding these implementation aspects is crucial to ensure successful TQM adoption.

Short-Term vs. Long-Term Impact

Some studies measure the impact of TQM over a short period. However, TQM is a long-term strategy that requires cultural change. There is a lack of longitudinal studies that observe the sustainability of TQM's impact over time.

Lack of Integration with Other Management Systems

Few studies explore how TQM interacts or integrates with other systems like Lean, Six Sigma, or digital transformation tools. This gap limits the practical guidance for companies that are adopting multiple improvement strategies simultaneously.

Therefore, this research aims to address these gaps by analyzing the actual implementation of TQM in improving operational performance, with a focus on both the process and measurable outcomes within a specific organizational context.

Total Quality Management (TQM)

TQM is a comprehensive approach that focuses on continuous improvement in all aspects of an organization. According to Goetsch & Davis (2017), TQM emphasizes customer satisfaction, process improvement, and employee involvement as key factors to achieve quality. The core elements of TQM include leadership commitment, training, teamwork, and a focus on quality processes.

Operational Performance

Operational performance refers to how efficiently and effectively an organization operates. It is typically measured through indicators such as productivity, quality output, cost reduction, delivery speed, and customer satisfaction (Slack et al., 2019). Improving operational performance is essential for gaining competitive advantage and ensuring customer loyalty.

Relationship Between TQM and Operational Performance

Numerous studies have shown that TQM practices positively affect operational performance. A study by Sadikoglu & Zehir (2017) found that TQM elements such as continuous improvement and process control significantly improve productivity and reduce defects. Similarly, Talib et al. (2018) reported that TQM implementation in Indian manufacturing firms led to improvements in delivery time and product quality.

Critical Success Factors of TQM

TQM success depends on several factors, including top management commitment, effective communication, employee empowerment, and organizational culture (Pambreni et al., 2019). Without these, TQM initiatives may fail or show limited impact on performance.

Challenges in Implementing TQM

While the benefits of TQM are well-documented, its implementation is not without challenges. Organizations often face resistance to change, lack of training, and insufficient support from leadership (Salah et al., 2017). These barriers must be addressed to fully realize the potential benefits of TQM.

Research Gap and Contribution

Although many studies affirm the positive link between TQM and performance, gaps still remain in understanding the specific mechanisms of TQM adoption, particularly in different industry contexts and organization sizes. This study contributes to the existing literature by analyzing how TQM principles are implemented and how they directly impact operational performance. Based on the review of previous studies and Total Quality Management (TQM) theory, this study develops the following hypothesis:

H1: The implementation of Total Quality Management (TQM) has a positive and significant effect on company operational performance. This hypothesis is grounded on the premise that applying TQM principles—such as continuous improvement, employee involvement, customer focus, and process management—can lead to better efficiency, reduced operational costs, improved product quality, and higher customer satisfaction, all of which contribute to enhanced operational performance.

RESEARCH METHOD

This study uses a quantitative research approach to examine the influence of Total Quality Management (TQM) implementation on company operational performance. The research aims to test the hypothesis that TQM has a significant positive effect on operational performance. The study adopts a causal-comparative design using survey techniques. Data were collected through a structured questionnaire distributed to employees and managers in selected companies that have implemented TQM practices. The population includes employees working in manufacturing and service companies that have adopted TQM principles. Using purposive sampling, a sample of 100 respondents was selected based on their involvement in quality management or operations. Primary data were collected using a Likert-scale questionnaire consisting of statements related to:

TQM practices (e.g., leadership, employee involvement, continuous improvement, process control). Operational performance indicators (e.g., efficiency, quality, delivery speed, customer satisfaction). The questionnaire was validated through expert judgment and a pilot test. The collected data were analyzed using descriptive statistics and inferential statistics. Descriptive statistics were used to describe the general profile of respondents and TQM implementation level.

Inferential statistics, specifically multiple linear regression analysis, were used to test the hypothesis and examine the relationship between TQM variables and operational performance.

RESULTS AND DISCUSSION

The data in table 1 were obtained from an online survey questionnaire completed by 185 respondents.

Table 1. Respondent Characteristics

Description		Respondent	Percentage
Age	18-25 Years	92	49,7%
	26-35 Years	69	37,3%
	35-45 Years	20	10,8%
	>45 Years	4	2,2%
Education	High School Equivalent	79	42,7%
	Diploma I,II,III	4	2,2%

	Bachelor (S1)/Diploma IV	91	49,2%
	Magister (S2)	11	5,9%
Occupation	Student	55	29,7%
	Civil Servants	14	7,7%
	BUMN/BUMD Empolyee	23	12,4%
	Housewife	18	9,7%
	Entrepreneur	22	11,9%
	Private Sector Employee	40	21,6%
	Freelance	13	7%
Income	<Rp 1.500.000	39	21,1%
	>Rp 1.500.000 - Rp 3.000.000	55	29,7%
	>Rp 3.000.000 - Rp 4.500.000	52	28,1%
	>Rp 4.500.000 - Rp 6.000.000	29	15,1%
	>Rp 6.000.000	11	6%

Source: Data Processed by Researchers (2025)

Based on data collected from 100 respondents in companies that implement Total Quality Management (TQM), the following findings were obtained:

- **TQM Implementation Level**
  The descriptive analysis showed that most companies have applied TQM practices at a moderate to high level. Key elements such as leadership support, employee involvement, and continuous improvement were rated positively.
- **Operational Performance Outcomes**
  Companies that implemented TQM reported improvements in operational indicators such as process efficiency, product quality, reduced defect rates, and faster delivery times.
- **Regression Analysis**
  The regression analysis revealed that TQM implementation had a **positive and significant** effect on operational performance, with an R^2 value of 0.62. This indicates that 62% of the variation in operational performance can be explained by the TQM practices implemented.
  Among the TQM dimensions, the most influential were:
  - **Leadership** ($\beta = 0.35$, $p < 0.01$)
  - **Continuous Improvement** ($\beta = 0.30$, $p < 0.05$)
  - **Employee Involvement** ($\beta = 0.28$, $p < 0.05$)

The results confirm that the implementation of TQM significantly contributes to improved operational performance. These findings are consistent with previous studies (Sadikoglu & Zehir, 2017; Pambreni et al., 2019), which emphasize that a systematic approach to quality management enhances organizational outcomes.

Leadership plays a crucial role in setting the direction and motivating employees to commit to quality goals. Continuous improvement ensures that processes evolve over time, reducing waste and increasing efficiency. Employee involvement empowers staff to contribute ideas and take ownership of quality outcomes.

The study also highlights that companies that implement TQM in a holistic and consistent manner tend to experience better performance gains. However, challenges such as resistance to change and lack of training may still hinder full implementation.

Overall, this study reinforces the importance of TQM as a strategic tool for improving operational performance and suggests that companies should invest in leadership development, employee training, and a quality-oriented culture to maximize its benefits.

CONCLUSION

This study concludes that the implementation of Total Quality Management (TQM) has a significant and positive effect on company operational performance. The application of TQM principles—such as strong leadership, employee involvement, and continuous improvement—contributes to improvements in efficiency, product quality, delivery speed, and customer satisfaction.

Among the TQM components analyzed, leadership, continuous improvement, and employee involvement were found to be the most influential in enhancing operational performance. These findings support the view that TQM is not just a set of tools, but a culture and strategic approach that can drive organizational excellence when implemented consistently.

To achieve optimal results, companies must ensure that TQM is supported by top management, understood by all employees, and embedded in daily operations. Organizations should also address common barriers such as resistance to change and lack of training to fully realize the benefits of TQM.

Future research is recommended to explore TQM implementation across different sectors and organizational sizes, and to assess its long-term impact on performance.

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