Journal of Economics
AND MANAGEMENT SCIENTIES
https://jems.ink
ISSN 2655-1934 (print), 2655-6685 (online)

Achievement Operation Performance: The Role of Soft TQM to Business Performance

Kevin Nathanael Saputra Djolin[1], Timotius FCW Sutrisno[2], and Anak Agung Ayu Puty Andrina[3]*

[1,2,3] *Universitas Ciputra, Indonesia*

ARTICLE HISTORY

Received: 03 November 25
Final Revision: 22 November 25
Accepted: 02 December 25
Online Publication: 31 December 25

KEYWORDS

TQM, Soft TQM, Operational Performance, Business Performance, Resource Based View

A B S T R A C T

Micro, Small, and Medium Enterprises (MSMEs) play a vital role in driving Indonesia's economic growth, innovation, and job creation. However, the majority of MSMEs, particularly in the food and beverage sector, face significant challenges in quality control and operational efficiency due to limited internal resources. This study aims to investigate the effect of Soft Total Quality Management (Soft TQM) on Operational Performance and Business Performance, with Operational Performance examined as a mediating variable. Using a quantitative approach, data were collected through an online questionnaire distributed to 185 student-owned food and beverage businesses at Ciputra University Surabaya. Respondents were selected from three cohorts (2021, 2022, 2023) using a purposive sampling technique. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with the help of SmartPLS software. The results indicate that Soft TQM significantly affects Operational Performance, and that Operational Performance significantly affects Business Performance. However, the direct effect of Soft TQM on Business Performance, as well as its indirect effect through Operational Performance, is not statistically significant. These findings suggest that while Soft TQM can enhance internal operations, its impact on overall business performance is contingent upon the presence of structured systems and readiness of internal capabilities. Therefore, strengthening operational systems and aligning TQM practices with organizational strategy is crucial for MSMEs aiming for sustainable competitiveness.

KATA KUNCI

TQM, *Soft* TQM, Kinerja Operasional, Kinerja Bisnis, Resource Based View

CORRESPONDING AUTHOR

knathanael@student.ciputra.ac.id

DOI

10.37034/jems.v8i1.276

A B S T R A K

Usaha Mikro, Kecil, dan Menengah (UMKM) memainkan peran vital dalam mendorong pertumbuhan ekonomi, inovasi, dan penciptaan lapangan kerja di Indonesia. Akan tetapi, mayoritas UMKM, khususnya di sektor makanan dan minuman, menghadapi tantangan signifikan dalam pengendalian kualitas dan efisiensi operasional akibat keterbatasan sumber daya internal. Penelitian ini bertujuan untuk menginvestigasi pengaruh *Soft Total Quality Management* (Soft TQM) terhadap Kinerja Operasional dan Kinerja Bisnis, dengan Kinerja Operasional yang diteliti sebagai variabel mediasi. Menggunakan pendekatan kuantitatif, data dikumpulkan melalui kuesioner daring (*online*) yang didistribusikan kepada 185 bisnis makanan dan minuman milik mahasiswa di Universitas Ciputra Surabaya. Responden dipilih dari tiga angkatan (2021, 2022, 2023) menggunakan teknik *purposive sampling*. Data dianalisis menggunakan *Partial Least Squares Structural Equation Modeling* (PLS-SEM) dengan bantuan perangkat lunak SmartPLS. Hasil penelitian menunjukkan bahwa Soft TQM berpengaruh signifikan terhadap Kinerja Operasional, dan Kinerja Operasional berpengaruh signifikan terhadap Kinerja Bisnis. Akan tetapi, pengaruh langsung *Soft* TQM terhadap Kinerja Bisnis, serta pengaruh tidak langsungnya melalui Kinerja Operasional, tidak signifikan secara statistik. Temuan ini mengindikasikan bahwa meskipun Soft TQM dapat meningkatkan operasi internal, dampaknya terhadap kinerja bisnis secara keseluruhan bergantung pada keberadaan sistem yang terstruktur dan kesiapan kapabilitas internal. Oleh karena itu, penguatan sistem operasional dan penyelarasan praktik TQM dengan strategi organisasi menjadi krusial bagi UMKM yang bertujuan mencapai daya saing berkelanjutan.

1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) are a sector that plays a pivotal role in the national economy, serving not only as the largest provider of employment but also as a source of innovation and a creator of new markets [1]. However, business dynamics require MSMEs to possess resilience against external changes.

The COVID-19 pandemic serves as a tangible lesson regarding the fragility of business foundations that lack efficient operational standards. The condition of MSMEs during the COVID-19 pandemic experienced a drastic decline, ranging from production capacity to revenue, resulting from the overall decrease in demand across nearly all business sectors [2], especially the food and beverage sector was one of the most directly impacted in the wake of the pandemic [3]. The sustainability of MSMEs cannot rely solely on external assistance; rather, it must be built from within. Internal strengthening through efficient operational standards becomes a necessity to ensure business practitioners remain capable of surviving and adapting to all forms of future market challenges.

Operational performance serves as an indicator of organizational success, measured through dimensions such as cost, quality, delivery, flexibility, and innovation. Effective management of operational performance not only fosters production process efficiency but also serves as a determinant of firm competitiveness in a competitive market [4]. To achieve this, quality becomes a primary strategy. Firms that position quality as a core strategy possess a comparative advantage that is difficult for competitors to replicate. It is in this context that the role of Total Quality Management (TQM) becomes pivotal. TQM offers a concept of continuous improvement that enables firms to compete adaptively [5]. Appropriate TQM implementation can serve as a quality management framework, enabling the organization to achieve strategic objectives while significantly enhancing operational performance [6].

In recent studies, Soft TQM and Hard TQM are the two main approaches in the implementation of total quality management, each playing complementary roles in enhancing organizational performance. Soft TQM emphasizes human factors and organizational culture, whereas Hard TQM focuses more on technical and systematic aspects. Therefore, Soft TQM builds a strong cultural foundation, while Hard TQM provides concrete tools and methods to ensure high-quality standards in company operations, ultimately driving operational and business performance, particularly in F&B companies [7].

In particular, elements of Soft TQM such as leadership, training, employee involvement, and customer orientation play a crucial role in enhancing operational and business performance [8]. In the F&B sector, TQM implementation has proven effective in creating sustainable competitive advantage [9]. Furthermore, the application of Soft TQM can be viewed as a strategic resource based on the Resource-Based View (RBV), where competitive advantage relies on the management of intangible resources such as quality culture and employee skills [10].

Most research still focuses on the technical aspects (Hard TQM), leaving a gap in understanding the contribution of Soft TQM, especially in the F&B sector. The implementation of Soft TQM has a more sustainable impact on SMEs compared to technical approaches due to its adaptive and human-centered nature [11]. Driven by the curiosity of how influential Soft TQM is on MSMEs, this study aims to examine the impact of Soft TQM on operational and business performance in F&B MSMEs in Indonesia. This research will explain how Soft TQM elements can support operational efficiency while simultaneously improving business performance in a holistic manner.

1.1. Resource Based View

The Resource-Based View (RBV) has become one of the central concepts in research that has grown rapidly in recent years. This theory was first introduced by Wernerfelt in 1984, who stated that the success of an organization is determined by its internal resources. These resources may include both physical and non-physical assets [12] or competencies such as knowledge and skills [13]. RBV emphasizes the importance of aligning available opportunities with the organization's potential. Therefore, the core of RBV is to maximize the utilization of internal resources to build the organization’s core competencies, with the aim of creating and sustaining a strong value proposition [14].

In this context, it is difficult for organizations to achieve the same level of competitiveness if they rely solely on internal resources such as human capabilities, access to information sources, and internal strategies [10]. Therefore, organizations need to establish a strong alignment between the external and internal environment to achieve sustainable competitive advantage. Considering the implications of RBV for organizational competitive advantage, this approach prioritizes the management of high-value resources to support and sustain an organization’s competitiveness [14].

1.2. Soft TQM

Soft Total Quality Management (Soft TQM) is a managerial approach that focuses on human aspects and organizational culture in the implementation of TQM to enhance performance sustainably. This approach emphasizes the importance of management involvement, human resource development, and harmonious relationships with customers and suppliers. Soft TQM concentrates on factors such as leadership, training, employee involvement, and relationship management with customers and suppliers to build a strong quality-oriented culture within the organization [7].

The main indicators of Soft TQM include several key aspects. Top management commitment reflects the active role of leaders in establishing a vision, strategy,

and sustainable quality culture within the organization [15]. Continuous improvement highlights the importance of ongoing innovation and evaluation in enhancing operational effectiveness and the quality of products or services [16]. Training and education aim to improve employees' skills and competencies in alignment with the organization's quality standards [17]. Customer focus ensures that customer needs and expectations are prioritized in the planning and implementation of quality strategies [18].

1.3. Operation Performance

Operation performance refers to an organization's ability to carry out operational activities efficiently and effectively in order to achieve its strategic goals. Operational performance encompasses various aspects such as quality, speed, flexibility, cost, and reliability, all of which influence an organization's competitiveness. Operation performance results from how a company manages its resources and processes to meet customer needs and attain competitive advantage. Strong operational performance enables a company to deliver high-quality products or services while minimizing waste and ensuring smooth processes [19].

The main indicators of operation performance include several critical aspects that reflect operational efficiency and effectiveness. Product quality improvement refers to the organization's efforts to enhance product quality standards to meet customer expectations [18]. Service quality focuses on enhancing customer experience through better and more consistent service delivery [20]. Lead time reduction reflects operational efficiency in speeding up production and service processes [16].

1.4. Business Performance

Business performance refers to an organization's ability to achieve its strategic objectives by attaining measurable outcomes across various business dimensions. Business performance is evaluated not only through financial aspects but also through non-financial indicators that reflect customer satisfaction, innovation, operational efficiency, and stakeholder relationships. Strong business performance demonstrates an organization's effectiveness in managing its resources and capabilities to create sustainable long-term value [21].

Business performance indicators can be measured through various non-financial aspects that reflect the organization's effectiveness and competitive advantage. Customer satisfaction refers to the extent to which the organization can meet or exceed customer expectations through high-quality products and services [18]. Product and service quality focuses on the consistency of delivering products and services that meet industry standards and customer expectations [20]. Business process excellence refers to the company's ability to create efficient workflows that are responsive to market changes [16].

1.5. Hypothesis Development

The implementation of Soft TQM has a significant relationship with the improvement of operational performance in the context of Indonesian MSMEs. Elements of Soft TQM, such as quality-oriented leadership, employee training, and a culture of continuous improvement, create a work environment that supports operational efficiency. In the F&B industry, top management commitment directly influences workflow regularity and waste reduction [22]. Furthermore, an organizational culture that supports employee engagement has been proven to enhance operational response speed to production issues [23]. The culture of continuous improvement also contributes significantly to improving operational efficiency by systematically identifying and correcting non-optimal processes [5]. Therefore, the hypothesis developed is that Soft TQM positively influences Operation Performance

H1: Soft TQM positively influences Operation Performance

Operation performance serves as a foundation for achieving superior business performance in Indonesian MSMEs. Elements of operational performance, such as product quality, service reliability, and efficiency, play a crucial role in enhancing business outcomes by strengthening customer satisfaction and improving competitiveness. Operational efficiency, such as production cost reduction and optimal resource utilization, contributes directly to company profitability [4]. Moreover, strong operational performance helps MSMEs meet quality standards and product consistency, which positively impacts customer satisfaction and loyalty [24]. When a firm is capable of consistently producing high-quality products, it strengthens market competitiveness and enables the organization to achieve its strategic objectives [19].

H2: Operation Performance positively influences Business Performance

Soft TQM impacts not only internal processes but also overall business performance. A quality culture built through training and leadership creates a strong corporate reputation among customers. Empirical research demonstrates that holistic TQM implementation is a key strategy for survival and business performance improvement, particularly in facing post-pandemic competition [25]. Additionally, customer focus as part of Soft TQM ensures that business strategies align with market needs, ultimately driving sales growth and market share expansion [6]. Although some studies suggest the impact might be indirect, the theoretical foundation of RBV posits that the unique intangible resources fostered by Soft TQM should lead to a sustained competitive advantage [10].

H3: Soft TQM positively influences Business Performance

Based on the relationships between variables, literature review, and observed phenomena, the conceptual model proposed in this study is as follows on Figure 1.

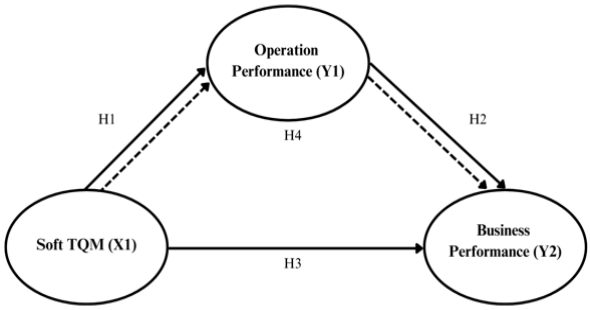

Figure 1. Research Framework

2. Research Method

This research applies a quantitative approach. The study was conducted in 2025 and focused on student business projects in the food and beverage sector at Ciputra University Surabaya. It involved students from three academic cohorts: 2021, 2022, and 2023.

The data collection instrument used in this study was a questionnaire, designed with a five-point Likert scale to assess respondents' perceptions, attitudes, and opinions toward statements related to Soft Total Quality Management practices, operational performance, and business performance. The scale consisted of: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, and (5) strongly agree. The questionnaire was distributed online via Google Form. A total of 185 respondents participated in this study, all of whom are owners of manufacturing businesses in the food and beverage sector.

Before the data analysis was carried out, the researcher ensured that the data fulfilled the basic assumptions of multivariate analysis, such as sufficient sample size, absence of multicollinearity, and data distribution close to normal. The use of the Partial Least Squares (PLS) approach is recommended for structural model testing when the number of samples exceeds 100 respondents [26], [27]. Therefore, this study applied the Structural Equation Modeling method based on PLS (SEM-PLS), with the support of SmartPLS software to analyze the relationships between latent variables.

3. Result and Discussion

The respondent profile in this study covers various demographic aspects and characteristics of the businesses they manage, which can be seen on Table 1. Among all participants, the majority are aged between 20 and 25 years (89.7%), while the remaining 10.3% are under 20 years old. In terms of gender, female respondents dominate with 58.4%, while male respondents account for 41.6%. Based on academic cohort, most respondents are from the 2022 batch (83.2%), followed by the 2023 batch (15.7%) and the 2021 batch (1.1%).

Table 1. Respondent Profile

Profile	Category	Frequency	Percentage (%)
Age	<20 years	19	10.3
	20-25 years	166	89.7
Gender	Man	77	41.6
	Woman	108	58.4
Cohort Year	2021	2	1.1
	2022	154	83.2
	2023	29	15.7
Business Age	<1 year	88	47.6
	1-3 years	77	41.6
	3-5 years	20	10.8
	>5 years	0	0.0
Number of Employees	<5 people	137	74.1
	5-10 people	48	25.9
	>10 people	0	0.0

From the perspective of business characteristics, 47.6% of the businesses operated by the respondents have been running for less than one year, 41.6% have been in operation for one to three years, and 10.8% have been active for three to five years. None of the businesses have been running for more than five years. Most of the businesses employ fewer than five people (74.1%), while 25.9% have between five and ten employees, and none have more than ten employees.

Table 2. Confirmatory Factor Analysis

Operational items	Factor Loading	Cronbach Alpha	Composite Reliability	AVE	R square
Soft TQM (X1)	0.696	0.885	0.902	0.576	-
	0.911				
	0.920				
	0.916				
Operational Performance (Y1)	0.820	0.745	0.749	0.661	0.470
	0.798				
	0.821				
Business Performance (Y2)	0.735	0.638	0.700	0.750	0.166
	0.660				
	0.868				

The Confirmatory Factor Analysis on Table 2 presents the results of construct validity and reliability testing using SmartPLS. All indicators show factor loadings above 0.6, indicating that each item effectively represents its respective construct. Construct reliability is assessed through Cronbach's Alpha and Composite Reliability, with Soft TQM displaying the highest values (0.885 and 0.902), followed by Operational

Performance (0.745 and 0.749), and Business Performance (0.638 and 0.700). Although the latter has relatively lower values, they remain within acceptable thresholds. Additionally, the AVE values for all constructs exceed 0.5, signifying that convergent validity is met and each construct explains more than 50% of the variance in its indicators.

The R-square values indicate that Operational Performance is explained by Soft TQM by 47%, while Business Performance is explained by other variables by 16.6%. These results suggest that the model demonstrates adequate predictive ability, particularly in the relationship between Soft TQM and Operational Performance. However, the lower reliability figures for Business Performance imply the potential need for additional indicators to improve internal consistency. Overall, the research model meets acceptable levels of validity and reliability, making it suitable for further analysis of the relationships among variables.

Table 3. Hypothesis Testing

Research Hypothesis	Description	T Statistics	P-Value	Information
H1	Soft TQM → Operation Performance	13.438	0.000	Supported
H2	Operation Performance → Business Performance	1.402	0.006	Supported
H3	Soft TQM → Business Performance	2.772	0.161	Unsupported
H4	Soft TQM → Operation Management → Business Performance	1.373	0.170	Unsupported

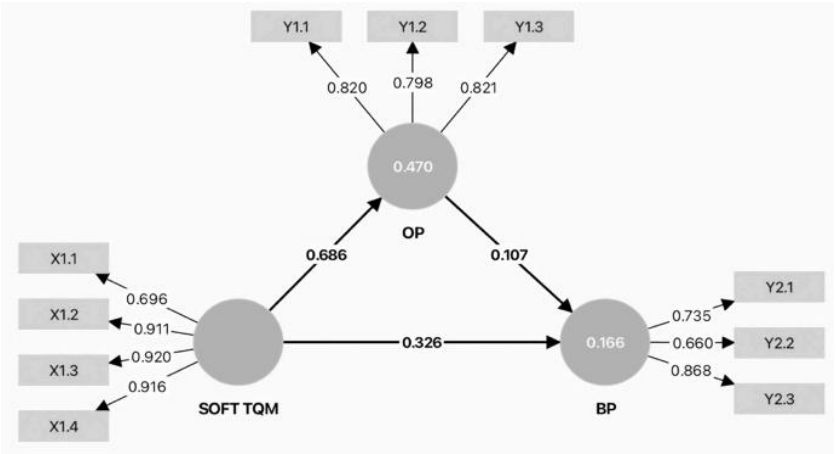

Figure 2. Hypothesis Testing Result

Based on the data on Table 3 and Figure 2, the relationship between Soft TQM and Operational Performance shows a T-Statistic of 13.438 with a P-Value of 0.000. As it meets the criteria of T-Statistic > T-Table and P-Value < 0.05, this hypothesis is accepted, indicating that Soft TQM significantly influences Operational Performance. Furthermore, the relationship between Operational Performance and Business Performance yields a T-Statistic of 1.402 and a P-Value of 0.006. Since the P-Value is less than 0.05, this hypothesis is also accepted, suggesting that Operational Performance has a significant impact on Business Performance.

However, the relationship between Soft TQM and Business Performance shows a T-Statistic of 2.772 with a P-Value of 0.161. Since the P-Value exceeds 0.05, this hypothesis is rejected, meaning that Soft TQM does not have a significant effect on Business Performance. Similarly, the relationship between Soft TQM and Business Performance through Operational Management has a T-Statistic of 1.373 with a P-Value of 0.170. Given that the P-Value is above the 0.05 threshold, this hypothesis is also rejected, indicating that there is no significant effect in this relationship. Overall, the analysis results demonstrate that Soft TQM significantly affects Operational Performance, which in turn significantly affects Business Performance. However, the direct effect of Soft TQM on Business Performance, as well as its indirect effect through Operational Management, is not significant.

The results of this study affirm that the implementation of Soft Total Quality Management (TQM) significantly contributes to the improvement of Operational Performance in food and beverage MSMEs in Indonesia. This finding is consistent with previous research emphasizing that the adoption of Soft TQM elements such as top management commitment, process management, and supplier relationships directly supports and strongly influences operational outcomes [7], [23]. Within the framework of the Resource-Based View (RBV), these Soft TQM components are considered intangible resources that are valuable, rare, inimitable, and non-substitutable. When managed effectively, they can serve as a foundation for achieving sustainable competitive advantage [10].

However, unlike the findings which identified a direct influence of Soft TQM on Business Performance [7],

this study reveals that such an effect is not statistically significant. This supports the notion that Soft TQM operates more as an organizational cultural foundation, influencing business outcomes indirectly through internal process improvements. Furthermore, the finding that Operational Performance significantly affects Business Performance is in line with arguments that operational excellence serves as a crucial bridge for driving optimal business results [23].

Interestingly, the study also finds that the mediating effect of Operational Performance in the relationship between Soft TQM and Business Performance is not significant. This suggests that other unexplored factors such as hard TQM practices or organizational culture may play a more critical role. It highlights that the impact of Soft TQM on MSMEs is highly contextual and largely depends on the readiness and quality of their internal resources. Therefore, strengthening internal capabilities through training, quality-based leadership, and effective communication should be prioritized to fully realize the benefits of Soft TQM practices.

4. Conclusion

The purpose of this study is to examine the impact of Soft Total Quality Management on Operational Performance and Business Performance within micro, small, and medium enterprises (MSMEs) in Indonesia's food and beverage sector, applying the Resource-Based View (RBV) as a theoretical lens. The findings reveal that Soft TQM significantly influences operational performance, and that operational performance, in turn, has a meaningful contribution to business performance, while no significant direct or indirect relationship was found between Soft TQM and business performance. These results suggest that sustainable competitive advantage in MSMEs is not merely determined by resource ownership, but rather by the organization's capability to manage and integrate those resources into their core operational processes. In this regard, Soft TQM functions as a cultural foundation that enhances operational effectiveness, strengthening the internal environment necessary for performance improvement. Therefore, to maximize business outcomes, MSMEs should reinforce Soft TQM practices by embedding quality-driven values within the organizational culture and supporting these values through systematic and continuous management efforts.

References

[1] Susanto, R. J. (2024). Pelatihan pengenalan tools total quality management (TQM) pada PT. Arra Busana Muslim. *Aspirasi: Publikasi Hasil Pengabdian dan Kegiatan Masyarakat*, *2*(5), 219–227. https://doi.org/10.61132/aspirasi.v2i5.1052

[2] Amri, A. (2020). Dampak COVID-19 terhadap UMKM di Indonesia. *Brand: Jurnal Ilmiah Manajemen Pemasaran*, *2*(1), 123–131.

[3] Saturwa, H., Suharno, & Ahmad, A. A. (2021). The impact of Covid-19 pandemic on MSMEs. *Jurnal Ekonomi dan Bisnis*, *24*(1), 65–82. https://doi.org/10.24914/jeb.v24i1.3905

[4] Rizkia, N. D., Hidayat, M., Suciati, Y. R., Setiyadi, R., Pratiwi, P. N., & Veranita, M. (2024). Analysis of the implementation of total quality management (TQM) in improving employee performance at PT Permata Bank Cibubur branch. *Indonesian Journal of Contemporary Multidisciplinary Research*, *3*(1), 155–168. https://doi.org/10.55927/modern.v3i1.7647

[5] Lestari, S. P., & Sutrisna, A. (2021). Analisis kinerja operasi pada masa pandemi Covid-19 dengan penerapan total quality management (TQM) dan supply chain management (SCM) di UMKM kota Tasikmalaya. *Eksis: Jurnal Ilmiah Ekonomi dan Bisnis*, *12*(2), 164. http://dx.doi.org/10.33087/eksis.v12i2.250

[6] Dinata, I. M. W., & Purnawati, N. K. (2021). Pengaruh total quality management terhadap kinerja perusahaan pada bengkel mobil Paramitha Auto Graha Denpasar. *E-Jurnal Manajemen Universitas Udayana*, *10*(5), 456. https://doi.org/10.24843/EJMUNUD.2021.v10.i05.p03

[7] Timotius, T. F. C. W. (2019). Relationship between total quality management element, operational performance and organizational performance in food production SMEs. *Jurnal Aplikasi Manajemen*, *13*(3), 482–490. https://doi.org/10.21776/ub.jam.2019.017.02.11

[8] Christian, F. T., Koesmono, T., & Christiananta, B. (2018). The effect of strategic leadership and organizational culture on the implementation of TQM and performance food and beverage company in Indonesia. *IJAR Research*, *6*(10), 922–929. https://dx.doi.org/10.21474/IJAR01/7889

[9] Prajogo, D. I., & Sohal, A. S. (2006). The relationship between organization strategy, total quality management (TQM), and organization performance—the mediating role of TQM. *European Journal of Operational Research*, *168*(1), 35–50. https://doi.org/10.1016/j.ejor.2004.03.033

[10] Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120. https://doi.org/10.1177/014920639101700108

[11] Rahman, S., & Bullock, P. (2006). Soft TQM, hard TQM, and organisational performance relationships: An empirical investigation. *Omega*, *33*(1), 73–83. https://doi.org/10.1016/j.omega.2004.03.008

[12] Collis, D. J. (1994). Research note: How valuable are organizational capabilities? *Strategic Management Journal*, *15*(S1), 143–152. https://doi.org/10.1002/smj.4250150910

[13] Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, *18*(7), 509–533. https://doi.org/10.1002/(SICI)1097-0266(199708)18:7%3C509::AID-SMJ882%3E3.0.CO;2-Z

[14] Makadok, R. (2001). Toward a synthesis of the resource-based and dynamic-capability views of rent creation. *Strategic Management Journal*, *22*(5), 387–401. https://doi.org/10.1002/smj.158

[15] Dubey, R., & Gunasekaran, A. (2015). Exploring Soft TQM dimensions and their impact on firm performance: Some exploratory empirical results. *International Journal of Production Research*, *53*(2), 371–382. https://doi.org/10.1080/00207543.2014.933909

[16] Zeng, J., Phan, C. A., & Matsui, Y. (2015). The impact of hard and soft quality management on quality and innovation performance: An empirical study. *International Journal of Production Economics*, *162*, 216–226. https://doi.org/10.1016/j.ijpe.2014.07.006

[17] Jimoh, R., Oyewobi, L., Isa, R. B., & Waziri, I. G. (2019). Total quality management practices and performance of

construction organizations: The mediating role of quality culture. *International Journal of Construction Management, 19*(2), 162–177. https://doi.org/10.1080/15623599.2017.1411456

[18] Sadikoglu, E., & Olcay, H. (2014). The effects of total quality management practices on performance and the reasons of and the barriers to TQM practices in Turkey. *Advances in Decision Sciences, 2014*, 1–17. https://doi.org/10.1155/2014/537605

[19] Slack, N., & Brandon-Jones, A. (2019). *Operations management* (9th ed.). Pearson.

[20] Psomas, E. L., & Antony, J. (2017). Total quality management elements and results in higher education institutions: The Greek case. *Quality Assurance in Education, 25*(2), 206–223. https://doi.org/10.1108/QAE-08-2015-0033

[21] Taouab, O., & Issor, Z. (2019). Firm performance: Definition and measurement models. *European Scientific Journal, 15*(1), 93–106. https://doi.org/10.19044/esj.2019.v15n1p93

[22] Indrastata, A. A., & Purnama, N. (2025). Analisis pengaruh penerapan total quality management (TQM) terhadap kinerja operasional. *Jurnal Manajemen Pendidikan dan Ilmu Sosial, 6*(5), 4235–4246. https://doi.org/10.38035/jmpis.v6i5.5933

[23] Tanjoyo, C., Harianto, E., & Sutrisno, T. F. C. W. (2021). The role of TQM and organizational culture on operational performance. *Jurnal Aplikasi Manajemen, 19*(4), 938–948. https://doi.org/10.21776/ub.jam.2021.019.04.20

[24] Phan, A. C., Abdallah, A. B., & Matsui, Y. (2019). Quality management practices and competitive performance: Empirical evidence from Japanese manufacturing companies. *International Journal of Production Economics, 216*, 205–216. https://doi.org/10.1016/j.ijpe.2011.01.024

[25] Herdina, R. P., Mizani, A., Wulandari, A. T., Febriana, E. F., & Prizi, J. A. (2025). Penerapan total quality management (TQM) pada UMKM untuk meningkatkan daya saing di era pasca-pandemi. *Musytari*: *Jurnal Manajemen, Akuntansi, Dan Ekonomi, 15*(4), 141–150. https://doi.org/10.8734/musytari.v15i4.11296

[26] Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM).* Los Angeles: SAGE Publication.

[27] Ferdinand, A. (2014). *Metode penelitian manajemen: Pedoman penelitian untuk penulisan skripsi, tesis dan disertasi ilmu manajemen* (5th ed.). Semarang, Indonesia: Badan Penerbit Universitas Diponegoro.