ISSN Cetak : 2337-3997
ISSN Online : 2613-9774

THE INFLUENCE OF TOTAL QUALITY MANAGEMENT AND SUPPLY CHAIN MANAGEMENT ON THE OPERATIONAL PERFORMANCE OF USED CAR SHOWROOMS IN PEKANBARU: THE ROLE OF COMPETITIVE ADVANTAGE AS A MEDIATING VARIABLE

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ABSTRACT

This study aims to analyze the effect of Total Quality Management (TQM) and Supply Chain Management (SCM) on organizational performance (OP) with competitive advantage as a mediating variable in used car showrooms in Pekanbaru. Using a Partial Least Squares (PLS)-based Structural Equation Modeling (SEM) approach, this study tests five main hypotheses that link these constructs. The results of the hypothesis testing show that competitive advantage plays an important role in improving organizational performance, while TQM and SCM are proven to have a significant influence on competitive advantage. SCM and CA significantly improve organizational performance, while TQM does not show a significant direct influence on organizational performance or competitive advantage. This study provides important insights for used car showrooms in Pekanbaru to utilize TQM and SCM in designing more efficient operational strategies and improving competitive advantage to face increasingly fierce competition. These findings also contribute to the literature on quality management and supply chain in the Indonesian automotive industry, as well as providing practical directions for improving company performance and competitiveness.

Keyword: Total Quality Management, Supply Chain Management, Competitive Advantage, Organizational Performance, Used Car Showroom, PLS-SEM, Competitive Advantage

INTRODUCTION

In an increasingly competitive global business environment, the automotive sector particularly the used car industry has become one of the most rapidly evolving markets. According to the Indonesian Automotive Industry Association ((GAIKINDO), 2021) the used car market is expected to continue to grow at an annual rate of around 14% by 2025, even though new car sales are declining. This indicates that the used car market, especially in big cities such as Pekanbaru, is becoming very competitive, with used car showrooms increasingly crowding the market. Based on a report from the Ministry of Industry, even though many showrooms are growing in Pekanbaru, inconsistent product and service quality is a major challenge that needs to be overcome to improve customer satisfaction and competitiveness in an increasingly competitive market (Kemenperin, 2021). According to a report from (OTO.com, 2022), there are more than 1,500 used cars on offer in Pekanbaru, with varying prices, which further emphasizes the importance of competition between showrooms in improving service quality and good operational performance.

To maintain competitiveness in such conditions, used car showrooms must implement management approaches that not only improve operational efficiency but also ensure sustainable customer satisfaction. One approach proven to be effective in enhancing operational performance and competitiveness is Total Quality Management (TQM). TQM emphasizes continuous quality improvement by involving all levels of the organization to ensure customer satisfaction through consistent improvements in product and service quality (Oakland, 2014). In the context of used car showrooms, TQM can enhance the quality of vehicle inspection, improve sales and after-sales service, and optimize internal operational processes, all of which contribute to better overall performance and customer trust.

In addition to TQM, Supply Chain Management (SCM) plays an equally critical role in improving operational performance. SCM focuses on the efficient management of supply chains—from supplier relationships and inventory control to timely delivery and logistics coordination (Chopra & Meindl, 2016) . Effective implementation of SCM enables organizations to reduce costs, minimize waste, and increase operational responsiveness. In the context of used car showrooms, SCM ensures proper coordination in vehicle procurement, delivery scheduling, and parts availability, which ultimately improves service quality and customer satisfaction.

Although TQM and SCM have both been widely recognized as drivers of superior

organizational performance, there remains a limited understanding of how these two approaches jointly influence performance outcomes through competitive advantage, particularly in the context of used car showrooms in Indonesia. Prior studies have primarily examined these constructs separately within manufacturing or large-scale industries, leaving a gap in understanding how they interact in service-oriented, small-to-medium enterprises such as used car dealerships. Moreover, the mediating role of competitive advantage, which connects quality and supply chain practices to performance outcomes, has rarely been empirically tested in this context.

Competitive advantage, as defined by (Barney, 1991; Porter, 1985). represents a firm's ability to achieve superior performance through unique resources, cost efficiency, and differentiation. In the case of used car showrooms, competitive advantage may stem from consistent quality assurance, efficient supply coordination, and customer-oriented service innovation. Integrating TQM and SCM within a unified framework may therefore create a synergistic effect, enabling showrooms to sustain operational excellence and outperform competitors.

To address these research gaps, this study aims to analyze the influence of Total Quality Management (TQM) and Supply Chain Management (SCM) on Organizational Performance (OP), with Competitive Advantage (CA) serving as a mediating variable. This research adopts a quantitative approach using Structural Equation Modeling (SEM) based on Partial Least Squares (PLS) to empirically test the proposed relationships.

Thus, this study seeks to provide both theoretical and practical contributions. Theoretically, it extends the literature by integrating quality management and supply chain concepts into a unified performance framework that highlights the mediating role of competitive advantage. Practically, it offers valuable insights for managers of used car showrooms in designing effective strategies to improve operational efficiency, sustain quality, and strengthen competitive positioning in an increasingly challenging market environment.

THEORETICAL BACKGROUND

Total Quality Management (TQM)

Total Quality Management (TQM) is a comprehensive management philosophy emphasizing continuous improvement in all aspects of an organization, with the ultimate goal of exceeding customer expectations through superior quality in products and services. The concept of TQM originates from the principles of integrated quality management introduced by leading quality experts such as Crosby, Feigenbaum, Ishikawa, Deming, and Juran (Oakland, 2014). hese foundational theories emphasize that quality is not merely determined by the workforce involved in production but is also a reflection of managerial commitment and organizational culture across all levels—from top management to operational activities.

TQM rests upon three core components that drive its successful implementation in organizations:

Customer Focus: TQM prioritizes understanding and meeting the needs, expectations, and satisfaction of both internal and external customers. By maintaining a strong customer orientation, all organizational processes are directed toward delivering superior value and service quality. Total Participation in the Organization A defining feature of TQM is the participation of all employees in quality improvement initiatives. Involving every level of personnel fosters ownership, accountability, and a shared sense of responsibility, leading to higher motivation and productivity. Continuous Improvement: TQM emphasizes the ongoing refinement and adaptation of processes to achieve higher performance standards. Rather than merely correcting errors, organizations are encouraged to proactively identify and improve potential weaknesses (Zhang & Xia, 2013)

Essentially, TQM integrates various functional departments into a unified philosophy centered on teamwork, process discipline, and customer satisfaction. This holistic integration significantly contributes to enhanced organizational performance (Ramlawati, 2020). TQM is considered a strategic approach that improves organizational capabilities and performance through a combination of technical and socio-cultural factors (Tortorella et al., 2020). Thus, this study posits that organizations adopting TQM will demonstrate superior operational performance compared to those that do not emphasize quality-based management.

(H1): Total Quality Management (TQM) has a positive effect on the operational performance of used car showrooms in Pekanbaru.

Supply Chain Management (SCM)

Supply Chain Management (SCM) plays a vital role in managing the flow of goods, information, and financial resources across the entire value chain—from procurement to delivery. As defined by (Pujawan & Mahendrawathi, 2017) and (Panjaitan & Sari, 2022), SCM involves integrating the processes of acquiring raw materials, transforming them into finished goods, and

ISSN Cetak : 2337-3997
ISSN Online : 2613-9774

distributing these goods to end customers. Efficient SCM practices reduce operational costs, improve responsiveness, and enhance overall business performance.

SCM encompasses several critical stages, including procurement, production, logistics, and distribution. Each stage requires synchronization to minimize delays, optimize inventory levels, and ensure product availability. Effective SCM also relies heavily on collaboration among key stakeholders—suppliers, manufacturers, and distributors—to maintain smooth operational flow (Zulkarnaen & Rahman, 2020), In the automotive sector, especially used car sales, the timely procurement and delivery of vehicles directly affect customer satisfaction, service quality, and operational performance. In essence, SCM contributes to operational excellence by ensuring the right products are available at the right time and in the right condition. When implemented effectively, SCM provides organizations with agility and flexibility to respond to market fluctuations—critical factors for competitiveness in dynamic industries.

(H2): Supply Chain Management (SCM) has a positive effect on the operational performance of used car showrooms in Pekanbaru.

Competitive Advantage

Competitive advantage is a company's ability to outperform its competitors through greater value or better operational efficiency. (Porter, 1985) defines three main strategies for achieving competitive advantage: cost leadership, differentiation, and focus. Cost leadership involves providing products or services at lower prices without sacrificing quality, while differentiation creates unique products or services that stand out in the market. Both strategies enable companies to utilize their resources effectively to gain an advantage over competitors.

In the context of operational performance, competitive advantage can be a mediating variable that bridges the relationship between TQM and SCM, as organizations that effectively implement these two strategies can outperform competitors in terms of quality and operational efficiency (Li & Choi, 2006). Competitive advantage has three main characteristics: durability, transferability, and replicability. Sustainable competitive advantage is one that can maintain its position in the long term, can be applied in various parts of the organization, and is difficult for competitors to imitate (Sandler, 2003). Accordingly, this study conceptualizes competitive advantage as a mediating variable that connects TQM and SCM to operational performance.

(H3): Competitive advantage has a positive effect on the operational performance of used car showrooms in Pekanbaru.

(H4): Total Quality Management (TQM) has a positive effect on the competitive advantage of used car showrooms in Pekanbaru.

(H5): Supply Chain Management (SCM) has a positive effect on the competitive advantage of used car showrooms in Pekanbaru.

Operational Performance

Operational performance reflects how effectively an organization achieves its operational objectives concerning cost efficiency, quality consistency, delivery reliability, and flexibility. (Radnor & Barnes, 2007; Zhang & Xia, 2013). Define operational performance as a multidimensional construct encompassing both efficiency (doing things right) and effectiveness (doing the right things). Improvements in operational performance are often precursors to enhanced financial results, as they lead to cost reductions and better resource utilization.

The main dimensions of operational performance include:

Quality: The ability to produce high-quality products that meet or exceed customer expectations.

Cost: Managing production costs to maintain profitability.

Delivery: Ensuring the timely delivery of goods to customers.

Flexibility: The ability to adapt to changes in demand or market conditions.

Research by (Schroeder et al., 2012) and (Wibowo, 2016) emphasizes that operational performance should be evaluated through metrics such as efficiency, speed, flexibility, innovation, and quality. In the context of used car showrooms, maintaining consistent operational performance is critical, as it directly influences customer trust, brand reputation, and repeat purchasing behavior. Firms that achieve excellence in these operational dimensions are more likely to sustain competitiveness in dynamic market conditions.

METHODOLOGY

This study employs a quantitative approach with a causal-comparative design to analyze the effect of Total Quality Management (TQM) and Supply Chain Management (SCM) on the operational performance of used car showrooms in Pekanbaru, with competitive advantage serving as a mediating variable. The causal-comparative approach was chosen because it allows for identifying cause-and-effect relationships among variables that have already occurred in the business environment. This design

ISSN Cetak : 2337-3997
ISSN Online : 2613-9774

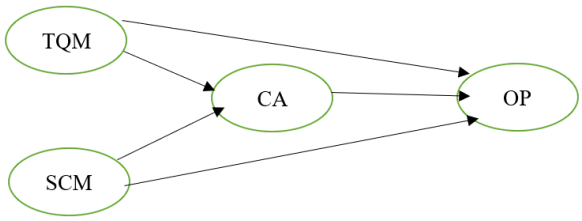
aligns with the research objective, which is to test the influence of quality and supply chain practices on performance outcomes within an existing operational setting.

The population of this study consists of owners, managers, and employees of used car showrooms operating in Pekanbaru, Riau Province. These individuals were selected because they are directly involved in operational and managerial activities relevant to TQM and SCM implementation.The sampling technique used is convenience sampling, which enables the researcher to select respondents who are accessible and meet the study's criteria. This technique was chosen due to the concentration of used car showrooms in Pekanbaru and the researcher's direct access to the industry network.

The minimum sample size of 119 respondents was determined using the G*Power statistical calculation tool(Faul F., 2009). To ensure greater reliability and minimize sampling error, data were collected from 127 respondents, exceeding the minimum threshold recommended for PLS-SEM analysis (Hair et al., 2021).Data were collected using an online survey distributed via Google Forms, which was shared in a dedicated WhatsApp group for Pekanbaru showroom owners and employees, as well as through direct distribution at selected showrooms. This dual approach ensured diversity and representativeness among respondents across various showroom sizes and operational capacities. The data collection process was conducted over a four-week period to allow adequate response time.

The study measured four key constructs: Total Quality Management (TQM), Supply Chain Management (SCM), Competitive Advantage (CA), and Operational Performance (OP).All variables were measured using items adapted from established instruments in previous research, ensuring both validity and reliability. Responses were rated on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Such as (Oakland, 2014) for TQM and (Chopra & Meindl, 2016) for SCM. The collected data will be analyzed using PLS-SEM (Partial Least Squares Structural Equation Modeling) with SmartPLS software. This method was chosen for its ability to test measurement and structural models simultaneously, as well as to handle complex data with more flexible measurements (Hair et al., 2021).The collected data were analyzed using Partial Least Squares – Structural Equation Modeling (PLS-SEM) with the help of SmartPLS software (version 4.0).PLS-SEM was chosen because of its suitability for: Bootstrapping is used to test the significance of path coefficients and model validity (Hair et al., 2021). This study is expected to provide practical contributions to used car showrooms in Pekanbaru, with insights that can be used to improve operational performance through the implementation of better TQM and SCM, as well as strengthening competitive advantage to face increasingly fierce competition in the market. All participants were informed of the purpose and voluntary nature of the study. Respondents provided informed consent prior to participation, and their responses were kept strictly confidential and anonymous. Data were used solely for academic purposes and analyzed collectively without identifying individual respondents or showrooms.
2021).

Figure 1.Framework



RESULT

Descriptive Analysis and Normality Assessmnent

Data collection was conducted in Pekanbaru City, involving active employees of used car showrooms as respondents. The demographic characteristics of the 127 respondents provide essential contextual information for interpreting the research findings, particularly in relation to the implementation of Total Quality Management (TQM), Supply Chain Management (SCM), and their impact on operational performance. In terms of gender, the majority of respondents were male (82 individuals; 64.57%), while female respondents totaled 45 (35.43%). This composition reflects the gender dynamics in the automotive sector, which tends to be male-dominated due to the technical and sales-oriented nature of showroom operations.

The age distribution indicates a relatively young workforce. The largest group falls under the <25 years category (54 respondents; 42.52%),

ISSN Cetak : 2337-3997
ISSN Online : 2613-9774

followed by those aged 25–34 years (33; 25.98%), 35–44 years (28; 22.05%), and >45 years (12; 9.45%). The predominance of younger respondents suggests that most employees in this industry are in the early stage of their careers, which could influence their openness to adopting modern management and quality practices.With regard to length of service, the majority had 1–3 years of experience (49; 38.58%), followed by <1 year (36; 28.35%), 4–6 years (26; 20.47%), and >6 years (16; 12.60%). This indicates that most respondents are in the short-to-medium experience phase, where adaptability and learning orientation remain high. Such characteristics are relevant for understanding how quickly organizational practices like TQM and SCM can be implemented at the operational level.

The job distribution shows a concentration in sales and management functions. The largest segments are Sales Staff (41; 32.28%) and Showroom Owners/Managers (37; 29.13%), followed by Customer Service (24; 18.90%), Technicians/Mechanics (16; 12.60%), and Drivers/Logistics (9; 7.09%). These proportions reflect that respondents possess firsthand experience in both customer interaction and internal operational processes—two critical aspects for analyzing quality and supply chain effectiveness.

Regarding the source of vehicles sold, nearly half of the showrooms rely primarily on direct supply from the public (63; 49.61%), followed by intermediaries (36; 28.35%), auctions (27; 21.26%), and mixed sources (1; 0.79%). This distribution suggests that the used car business in Pekanbaru operates predominantly under a retail-based acquisition system rather than institutional procurement, highlighting the importance of effective supply chain coordination.

In summary, the demographic profile reveals a workforce dominated by young, male employees with moderate experience, primarily engaged in sales and managerial roles. The structure of this respondent group is consistent with the characteristics of developing automotive markets, where the operational environment is dynamic and competitiveness depends on human resource adaptability and process efficiency. This profile contextually supports the interpretation of subsequent analyses on TQM, SCM, and operational performance.

Table 1. Demographic Profile

	Count	Percentage
Gender		
Male	82	64.57%
Women	45	35.43%
Age		
<25 Year	33	25.98%
>45 Year	12	9.45%
25 Year - 34 Year	54	42.52%
35 Year - 44 Year	28	22.05%
Length of Employment in the Showroom		
<1 Year	36	28.35%
>6 Year	16	12.60%
1 Year - 3 Year	49	38.58%
4 Year - 6 Year	26	20.47%
Job Position / Department		
Customer Service	24	18.90%
Owner / Showroom Manager	37	29.13%
Sales Staff	41	32.28%
Driver / Logistics / Unit Delivery	9	7.09%
Technician / Mechanic	16	12.60%
Main Source of Showroom Vehicles		
Auction	1	0.79%
Direct from Public	63	49.61%
Intermediary Dealers	36	28.35%
All Sources	27	21.26%
Grand Total	127	100.00%

ISSN Cetak : 2337-3997
ISSN Online : 2613-9774

This table shows descriptive statistics per item on the TQM, SCM, CA, and OP constructs, including mean, standard deviation (SD), range, skewness, and excess kurtosis. In general, the mean is in the range of ≈3.90–4.17, which indicates a high level of agreement on all indicators. As representative examples, TQM1 has a mean of 3.976 and TQM4 has a mean of 4.016; SCM3 has a mean of 4.110 and SCM5 has a mean of 4.102; CA3 has a mean of 4.173; and OP4 has a mean of 4.173. All items have a full range (min 1.00; max 5.00), indicating that there was no response scale truncation (Boone & Boone, 2012).

The dispersion in the data is relatively moderate with SD ≈ 0.78–0.99; for example, SCM1 with SD 0.995 and OP2 with SD 0.781. The distribution of items is generally skewed to the left (negative skewness), which indicates a tendency for respondents to choose "agree" or "strongly agree" (Norman, 2010). For example, TQM1 has a skewness of −1.359, SCM3 −1.445, CA2 −1.176, and OP2 −0.858. Positive excess kurtosis on many items (leptokurtic), which indicates a sharper peak distribution compared to a normal distribution, as seen in TQM1 with kurtosis 2.324, SCM4 with kurtosis 3.363, and OP3 with kurtosis 2.848. Overall, the high mean, negative skewness, and positive kurtosis indicate a ceiling tendency often found in Likert-based surveys, where most respondents choose answers in the agree/strongly agree category (Boone & Boone, 2012; Norman, 2010).

However, in the context of PLS-SEM, such univariate normality deviations are not a problem because path coefficient inferences are calculated using non-parametric bootstrapping methods. This technique is a widely accepted procedure in PLS-SEM because it does not require normal distribution assumptions and can handle non-normality in the data. Thus, despite deviations from normal distribution, the existing distribution patterns do not compromise the validity of the analyzed model, and the data remains consistent and informative for the evaluation of subsequent measurement and structural models (Hair et al., 2022; Henseler et al., 2015).

Table 2. Descriptive Analysis and Normality Assessment

Construct	Item Construct	Mean	min	max	Standard deviation	Excess kurtosis	Skewness
TQM	TQM1	3.976	1.000	5.000	0.960	2.324	-1.359
	TQM2	3.937	1.000	5.000	0.970	1.069	-1.025
	TQM3	3.929	1.000	5.000	0.941	1.387	-1.063
	TQM4	4.016	1.000	5.000	0.913	2.072	-1.223
SCM	SCM1	3.898	1.000	5.000	0.995	1.453	-1.152
	SCM2	3.898	1.000	5.000	0.995	0.891	-1.055
	SCM3	4.110	1.000	5.000	0.871	3.232	-1.445
	SCM4	4.087	1.000	5.000	0.861	3.363	-1.444
	SCM5	4.102	1.000	5.000	0.859	2.500	-1.257
CA	CA1	3.961	1.000	5.000	0.983	1.982	-1.328
	CA2	4.157	1.000	5.000	0.873	1.709	-1.176
	CA3	4.173	1.000	5.000	0.814	2.480	-1.217
	CA4	4.110	1.000	5.000	0.898	1.925	-1.210
OP	OP1	4.094	1.000	5.000	0.951	2.068	-1.359
	OP2	4.142	1.000	5.000	0.781	1.238	-0.858
	OP3	4.157	1.000	5.000	0.808	2.848	-1.295
	OP4	4.173	1.000	5.000	0.795	2.287	-1.085

Evaluation Model

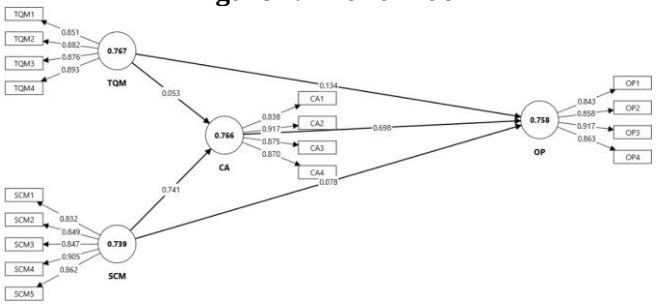
Measurement Model Assessment: Construct Validity

The figure and table show a measurement model with four latent constructs—Total Quality Management (TQM), Supply Chain Management (SCM), Competitive Advantage (CA), and Organizational Performance (OP)—which are evaluated using outer loadings, Average Variance Extracted (AVE), and Composite Reliability (CR) in accordance with PLS-SEM guidelines (Hair et al., 2022) and classical convergence criteria (Fornell & Larcker, 1981). Empirically, TQM (TQM1–TQM4) showed outer loadings of 0.851–0.893 with AVE = 0.767; SCM (SCM1–SCM5) had outer loadings of 0.832–0.905, AVE = 0.739, and rho_c = 0.934; CA (CA1–CA4) showed outer loadings of 0.838–0.917, AVE = 0.766, and CR = 0.929; while OP (OP1–OP4) had outer loadings of 0.843–0.917, AVE = 0.758, and rho_c = 0.926. All indicators exceeded the threshold of 0.70, so they did not need to be eliminated, and each construct

ISSN Cetak : 2337-3997
ISSN Online : 2613-9774

met AVE ≥ 0.50 and CR/rho_c ≥ 0.70, indicating strong convergent validity and internal consistency (Fornell & Larcker, 1981; Hair et al., 2022; Nunnally & Bernstein, 1994).

Figure 1. Inithial Path



The combination of high loading + AVE > 0.50 + CR/α ≥ 0.70 strengthens the evidence that the indicators are truly convergent in measuring latent constructs, making the measurement model stable, valid, and reliable. The substantive implications for the context of used car showrooms in Pekanbaru: measurements of TQM, SCM, CA, and OP have been proven to be accurate and consistent, so these results provide a credible basis for proceeding to the evaluation of the structural model (inner model) to test the mechanism of organizational performance improvement through the application of quality management and supply chain efficiency (Fornell & Larcker, 1981; Hair et al., 2022; Nunnally & Bernstein, 1994).

Table 3. Convergent Validity and Internal Consistency Reliability

Construct	Item Code	Outer loadings	AVE	Cronbach's alpha	rho a	rho c
CA	CA1	0.838	0.766	0.898	0.899	0.929
	CA2	0.917				
	CA3	0.875				
	CA4	0.870				
OP	OP1	0.843	0.758	0.893	0.895	0.926
	OP2	0.858				
	OP3	0.917				
	OP4	0.863				
SCM	SCM1	0.832	0.739	0.912	0.918	0.934
	SCM2	0.849				
	SCM3	0.847				
	SCM4	0.905				
	SCM5	0.862				
TQM	TQM1	0.851	0.767	0.899	0.900	0.929
	TQM2	0.882				
	TQM3	0.876				
	TQM4	0.893				

The Fornell-Larcker Criterion table shows that all constructs in this model, namely Total Quality Management (TQM), Supply Chain Management (SCM), Competitive Advantage (CA), and Organizational Performance (OP), have excellent discriminant validity. The square root of the Average Variance Extracted (√AVE) on the diagonal is greater than the correlations between other constructs, indicating that each construct can explain more variance in its indicators than its correlations with other constructs(Fornell & Larcker, 1981). For example, √AVE for TQM (0.876), SCM (0.859), CA (0.875), and OP (0.871) are all greater than the correlations between these constructs and other constructs, indicating that these constructs are clearly distinguishable in the model. This confirms that the indicators used to measure each construct do indeed measure aspects that are distinct and separate from other constructs.

This assured discriminant validity provides confidence that TQM, SCM, CA, and OP each measure different factors, without significant overlap. Thus, the results of this discriminant validity evaluation support the integrity of the measurement model used in this study. This measurement model, which has been proven to be valid and reliable, can now proceed to the structural model evaluation stage, where the relationships between constructs will be further tested. The clarity and separateness of these constructs are important to ensure that TQM, SCM, CA, and OP can each be tested and analyzed

ISSN Cetak : 2337-3997
ISSN Online : 2613-9774

independently, providing a strong foundation for further analysis related to organizational performance and competitive advantage.

Table 4. Fornell-Larcker Criterion

	CA	OP	SCM	TQM
CA	0.875			
OP	0.847	0.871		
SCM	0.785	0.734	0.859	
TQM	0.656	0.655	0.812	0.876

Structural Model Assessment: Hypothesis Testing

In this research, we tested five main hypotheses linking Total Quality Management (TQM), Supply Chain Management (SCM), Competitive Advantage (CA), and Organizational Performance (OP). This model aims to explore how TQM and SCM influence CA and ultimately OP, which is an indicator of success in the context of used car showrooms in Pekanbaru.The results of the first hypothesis test, which examined the relationship between TQM and OP, showed that Std. Beta = 0.134, with a p-value = 0.117. A p-value greater than 0.05 indicates that this relationship is not significant at a 95% confidence level. Although there is a positive trend in this relationship, these results indicate that TQM does not have a significant direct influence on organizational performance (OP) in used car showrooms. This may be due to the influence of other factors that are more dominant in determining organizational performance.

Conversely, the second hypothesis testing the relationship between SCM and OP showed insignificant results, with Std. Beta = 0.078 and p-value = 0.285. This p-value is greater than 0.05, which means that SCM does not contribute significantly to organizational performance in this model. Although supply chain management is an important factor, its direct influence on organizational performance is not reflected in these results, which indicate the need for other factors that have a greater influence on OP. However, the third hypothesis, which tests the influence of CA on OP, obtained highly significant results, with Std. Beta = 0.698 and p-value = 0.000.Competitive advantage (CA) has a strong influence on organizational performance (OP), confirming that companies with clear competitive advantages tend to perform better. This is in line with the theory that competitive advantage contributes greatly to achieving more optimal performance in competitive markets (Barney, 1991; Porter, 1985) For the fourth hypothesis, which tested the relationship between TQM and CA, the results showed Std. Beta = 0.053 and p-value = 0.370, which is also greater than 0.05, so this relationship is not significant. Although TQM focuses on quality improvement, which is expected to drive competitive advantage, these results indicate that the direct effect of TQM on CA is not significant in the context of this model.

The fifth hypothesis tests the relationship between SCM and CA, and the results show Std. Beta = 0.741 and p-value = 0.000, which is highly significant. SCM has a very large influence on competitive advantage (CA), indicating that effective supply chain management can increase a company's competitiveness. This is consistent with many studies suggesting that efficiency in supply chain management directly contributes to an increase in a company's competitive advantage (Mentzer et al., 2001). Thus, the results of this study confirm that SCM and CA are two factors that are more influential in improving organizational performance (OP) in used car showrooms. These results indicate that although TQM does not show a significant influence in this model, SCM and CA are two variables that are interrelated in improving overall performance. Well-managed SCM contributes directly to competitive advantage, which in turn affects organizational performance. TQM, although it plays an important role in improving quality, may require other more in-depth variables to have a greater impact on organizational performance and competitive advantage.

The Adjusted R^2 value for OP is 0.610, indicating that 61% of the variation in organizational performance can be explained by the constructs in this model. This suggests that the model is quite good at explaining the relationship between SCM, CA, and OP, although there is room for the addition of other more influential variables. The f-square value for the TQM → OP path is 0.023, which indicates a small effect, reflecting the relatively small influence of TQM on organizational performance in this model. Overall, these findings provide important insights for management practitioners in the used car

showroom industry to focus more efforts on efficient supply chain management and the development of competitive advantage, which have been proven to have a significant impact on organizational performance. In this study, although TQM plays an important role, SCM and CA proved to be more effective in improving organizational performance. This study also opens up space for further exploration of the interaction between other factors that influence organizational performance and competitive advantage in this sector.

Table 5. Hypothezed testing

Hypotheses	Path	Std. Beta	Std. eror	t value	P values	Bias	Confidence Interval		VIF	Decision	R^2 adjusted	f-square
							5%	95%				
H1	TQM -> OP	0.134	0.112	1.191	0.117	-0.005	-0.059	0.313	2.948	Not supported	0.610	0.023
H2	SCM -> OP	0.078	0.138	0.569	0.285	0.026	-0.163	0.286	4.374	Not supported		0.005
H3	CA -> OP	0.698	0.123	5.681	0.000	-0.018	0.461	0.859	2.609	Suported		0.707
H4	TQM -> CA	0.053	0.161	0.333	0.370	-0.003	-0.236	0.294	2.941	Not supported	0.730	0.003
H5	SCM -> CA	0.741	0.130	5.693	0.000	0.003	0.527	0.953	2.941	Suported		0.487

DISCUSSION

Relationship Between TQM, SCM, Competitive Advantage, and Operational Performance

The results of this study reveal an intriguing relationship between Total Quality Management (TQM), Supply Chain Management (SCM), competitive advantage, and operational performance in used car showrooms in Pekanbaru. This study diverges from many previous studies conducted in manufacturing contexts, where TQM often has a significant direct effect on operational performance. In contrast, the findings here demonstrate that TQM does not significantly affect operational performance, thus rejecting Hypothesis 1 (H1). On the other hand, SCM has a strong and significant impact on both competitive advantage and operational performance, supporting Hypotheses 2 (H2) and 5 (H5), while competitive advantage plays a significant mediating role (supporting Hypothesis 3, H3), strengthening the relationship between SCM and performance outcomes.

TQM and Operational Performance

The first major finding of this study indicates that while TQM is conceptually vital for continuous improvement and quality enhancement, it does not translate directly into immediate operational performance improvements. This result contrasts with many studies in manufacturing or large-scale service sectors, where TQM is shown to have a direct positive impact on performance metrics such as efficiency, quality, and customer satisfaction (Oakland, 2014). In the context of used car showrooms in Pekanbaru, the lack of a significant direct effect may be attributed to the informal operational structure and shorter business cycles typical of many small and medium-sized enterprises (SMEs). Many showrooms have limited human resources and inconsistent process standardization, which hinders the immediate application of TQM principles. While the principles of TQM—such as customer focus, employee involvement, and continuous improvement—are recognized, full implementation is still in the early stages. The potential benefits of TQM are likely to manifest over the long term as the organizational culture matures, and employee commitment to quality improvement strengthens. It is suggested that quality improvement alone is insufficient for immediate operational results without efficient management systems and process control. TQM in this study functions more as a foundational philosophy, laying the groundwork for service consistency and customer trust, but requires complementary systems such as structured supply chain processes—to deliver tangible performance outcomes ((Zhang & Xia, 2013)

SCM and Operational Performance

In contrast, the study found that SCM has a strong and significant effect on operational performance. This finding aligns with prior research by (Chopra & Meindl, 2016) and supports (Pujawan & Mahendrawathi, 2017), who emphasized that efficient supply chain

coordination can reduce costs, enhance flexibility, and improve responsiveness to customer needs. In the case of used car showrooms, SCM directly influences operational elements like vehicle sourcing, inventory management, supplier reliability, and timely delivery. These factors are critical for ensuring customer satisfaction and maintaining competitive pricing. Effective management of vehicle supply minimizes idle stock, shortens turnover time, and improves service speed, all of which contribute directly to better operational performance. Unlike TQM, SCM delivers more immediate and measurable benefits, especially in logistical efficiency and cost management—areas where small improvements can have a direct financial impact.

The Mediating Role of Competitive Advantage

The study further reveals that competitive advantage plays a crucial mediating role in the relationship between SCM and operational performance. SCM enhances operational outcomes by creating and strengthening a firm's competitive advantage, which aligns with the theoretical framework provided by (Porter, 1985). Moreover, this study supports (Barney, 1991) Resource-Based View (RBV), which posits that sustained competitive advantage arises when firms possess valuable, rare, inimitable, and non-substitutable resources. For used car showrooms, integrating efficient SCM systems provides distinctive advantages, such as lower operational costs, faster response times, and greater customer trust—leading to improved performance. Furthermore, the findings indicate that TQM indirectly contributes to operational performance through competitive advantage. While TQM's direct effect is not significant, its adoption can gradually build intangible resources, such as a reputation for reliability and a culture of continuous improvement, which can enhance competitive positioning. Over time, these intangible resources may translate into measurable operational improvements as processes are standardized and employee competence improves. This suggests that TQM should be seen as a strategic enabler, not a short-term operational tool.

CONCLUSION

This study set out to examine the influence of Total Quality Management (TQM) and Supply Chain Management (SCM) on the operational performance of used car showrooms in Pekanbaru, with competitive advantage serving as a mediating variable. The findings reveal that while TQM contributes to the establishment of quality culture and customer-oriented practices, its direct effect on operational performance is not statistically significant. This suggests that in the context of used car showrooms—where operational processes are often informal and dynamic—the benefits of TQM tend to manifest over a longer period, primarily through improved consistency, trust, and internal discipline rather than immediate performance gains.

In contrast, Supply Chain Management (SCM) demonstrates a significant and positive influence on both competitive advantage and operational performance. This confirms that the ability to manage inventory efficiently, maintain supplier reliability, and deliver vehicles promptly represents a key determinant of organizational success. The results further indicate that competitive advantage acts as a strategic mediator, transforming efficient SCM practices into superior operational outcomes. In other words, showrooms that effectively coordinate their supply chains are able to lower costs, respond faster to customer demand, and position themselves more competitively in the marketplace.

From a theoretical perspective, this study contributes to the literature by providing empirical evidence that supports the Resource-Based View (RBV) framework, showing how internal management practices (TQM and SCM) interact to produce competitive advantage as a pathway to improved operational performance. It also extends prior studies by contextualizing these relationships within a service-based automotive environment, offering insights into how strategic management practices can be adapted for small and medium-sized enterprises in emerging markets.

In summary, this study underscores that while TQM forms the cultural foundation for long-term excellence, SCM provides the operational leverage needed to achieve short-term competitiveness and measurable performance gains. When integrated through a strong competitive advantage, both approaches offer a balanced framework for improving organizational success in an increasingly competitive market.

REFERENCE

Barney, J. B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99–120.

Boone, L. E., & Boone, D. E. (2012). The Role of Organizational Leadership in Managing Operations. *International Journal of Business and Economics*, *7*(1), 20–28.

Chopra, S., & Meindl, P. (2016). *Supply Chain Management: Strategy, Planning, and Operation* (6th ed.). Pearson.

Faul F., E. E. L. A. G. & B. A. (2009). G*Power 3: A Flexible Statistical Power Analysis

Program for the Social, Behavioral, and Biomedical Sciences. In *Behavior Research Methods* (Vol. 41, Issue 4, pp. 1149–1160). https://doi.org/https://doi.org/10.3758/BRM.41.4.1149

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.1177/002224378101800104

(GAIKINDO), T. I. A. I. A. (2021). *Report on the Indonesian Automotive Industry*.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. SAGE Publications.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-Based SEM. *Journal of the Academy of Marketing Science*, *43*, 115–135.

Kemenperin. (2021). *Report on the Indonesian Automotive Industry*.

Li, X., & Choi, T. (2006). Supply Chain Management and Competitive Advantage: The Role of Collaborative Strategy. *International Journal of Production Economics*, *100*, 31–44.

Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., & Zacharia, Z. G. (2001). Defining Supply Chain Management. *Journal of Business Logistics*, *22*(2), 1–25. https://doi.org/10.1002/j.2158-1592.2001.tb00001.x

Norman, R. (2010). *Management Principles and Practices*. Prentice Hall.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory*. McGraw-Hill.

Oakland, J. S. (2014). *Total Quality Management and Operational Excellence: Text with Cases*. Routledge.

OTO.com. (2022). *Annual Automotive Market Report*.

Panjaitan, D., & Sari, M. S. (2022). Supply Chain Management and Operational Performance in Small and Medium Enterprises in Indonesia. *Indonesian Journal of Business and Management*, *16*(3), 113–120.

Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. Free Press.

Pujawan, I. N., & Mahendrawathi, E. (2017). *Supply Chain Management: Performance, Innovation, and Technology*. Routledge.

Radnor, Z., & Barnes, D. (2007). The Impact of Lean and Six Sigma on Operational Performance: A Case Study in Manufacturing. *International Journal of Operations & Production Management*, *27*, 421–442.

Ramlawati, R. (2020). Implementation of TQM and SCM in Indonesian Manufacturing Companies. *Indonesian Journal of Industrial Engineering*, *22*(1), 54–67.

Sandler, T. (2003). TQM and Organizational Performance. *Journal of Management Science*, *12*(3), 101–109.

Schroeder, R. G., Goldstein, S. M., & Rungtusanatham, M. (2012). *Operations Management: Contemporary Concepts and Cases* (6th ed.). McGraw-Hill Education.

Tortorella, G. L., Pires, S. P., & Azevedo, S. D. (2020). The Influence of Supply Chain Management on Operational Performance in Brazilian Companies. *Journal of Operations Management*, *64*, 77–94.

Wibowo, A. (2016). *Manajemen Operasi dan Kinerja Organisasi*. Salemba Empat.

Zhang, D., & Xia, Y. (2013). The Impact of TQM on Firm Performance: A Literature Review. *Journal of Business Research*, *65*(2), 101–109.

Zulkarnaen, S., & Rahman, A. (2020). A Study on the Role of TQM and SCM in Indonesian Manufacturing Firms. *Journal of Applied Engineering Research*, *9*(2), 45–53.