

Korespondensi

Uncertain Supply Chain Management (USCM)

1. Submission



Wilson Rajagukguk <wrajagukguk.uki@gmail.com>

[USCM] Submission ID 2992

USCM <uscm@growingscience.com>

2 September 2023 pukul 14.48

Balas Ke: uscm@growingscience.com

Kepada: wrajagukguk.uki@gmail.com, info@growingscience.com

Thank you for your submission to USCM. Below is a copy of the information submitted for your records.

Submission ID: 2992

Title: SERVICE QUALITY AND SUPPLY CHAIN VALUE ON CUSTOMER LOYALTY: THE ROLE OF CUSTOMER RELATIONSHIP MANAGEMENT

Author 1:

First Name: Wilson

Last Name: Rajagukguk

Organization: Universitas Kristen Indonesia

Country: Indonesia

Email: wrajagukguk.uki@gmail.com

Author 2:

First Name: Omas Bulan

Last Name: Samosir

Organization: Universitas Indonesia

Country: Indonesia

Email:

Author 3:

First Name: Josia

Last Name: Rajagukguk

Organization: Universitas Indonesia

Country: Indonesia

Email:

Author 4:

First Name: Hasiana Emanuela

Last Name: Rajagukguk

Organization: Universitas Indonesia

Country: Indonesia

Email:

Contact Author: Author 1

Alternate Contact: 081280878415

Topic(s):

- Agile Manufacturing

- Inventory

- Total Quality Management

Keywords: Service Quality, Customer Satisfaction, Supply Chain Value, Customer Loyalty, Customer Relationship Management (CRM)

Abstract: Intense business competition urges companies to continually enhance their marketing strategies to retain and attract customers. Therefore, a profound understanding of factors influencing customer loyalty becomes crucial. Service quality, customer satisfaction, and supply chain value are considered key factors affecting customer loyalty. However, the relationships between these variables and the role of Customer Relationship Management (CRM) as a

mediator need further investigation, especially in the context of Indonesian companies. Hence, this research aims to contribute a deeper understanding of the interconnection between service quality, customer satisfaction, supply chain value, and customer loyalty, as well as to explore the role of CRM as an essential link in this dynamic. The research methodology employed is quantitative, utilizing a Likert scale questionnaire distributed online to managers and employees in the automotive sector listed on the Indonesia Stock Exchange (IDX). Out of 400 distributed questionnaires, 261 were successfully collected, with 14 incomplete responses, resulting in a final sample size of 247. Data collection took place from June to August 2023. In data analysis, the study applied the Structural Equation Modeling (SEM) approach using the SmartPLS analysis tool. The research findings indicate that service quality significantly influences CRM, while it does not have a direct significant impact on customer loyalty. Customer satisfaction significantly affects both CRM and customer loyalty. Supply chain value significantly influences CRM but does not have a direct impact on customer loyalty. Customer Relationship Management proves to mediate the relationships between service quality and customer loyalty, customer satisfaction and customer loyalty, as well as supply chain value and customer loyalty.

SERVICE QUALITY AND SUPPLY CHAIN VALUE ON CUSTOMER LOYALTY: THE ROLE OF CUSTOMER RELATIONSHIP MANAGEMENT

Wilson Rajagukguk, Omas Bulan Samosir, Josia Rajagukguk, Hasiana Emanuela Rajagukguk

1. Postgraduate Program, Master of Management Program, and Faculty of Economic and Business, Universitas Kristen Indonesia, Jakarta, Indonesia
2. Faculty of Economic and Business, Universitas Indonesia, Jakarta, Indonesia
3. Postgraduate Master of Management, Universitas Indonesia, Jakarta, Indonesia
4. Faculty of Computer Science, Universitas Indonesia, Jakarta, Indonesia

Abstract

Intense business competition urges companies to continually enhance their marketing strategies to retain and attract customers. Therefore, a profound understanding of factors influencing customer loyalty becomes crucial. Service quality, customer satisfaction, and supply chain value are considered key factors affecting customer loyalty. However, the relationships between these variables and the role of Customer Relationship Management (CRM) as a mediator need further investigation, especially in the context of Indonesian companies. Hence, this research aims to contribute a deeper understanding of the interconnection between service quality, customer satisfaction, supply chain value, and customer loyalty, as well as to explore the role of CRM as an essential link in this dynamic. The research methodology employed is quantitative, utilizing a Likert scale questionnaire distributed online to managers and employees in the automotive sector listed on the Indonesia Stock Exchange (IDX). Out of 400 distributed questionnaires, 261 were successfully collected, with 14 incomplete responses, resulting in a final sample size of 247. Data collection took place from June to August 2023. In data analysis, the study applied the Structural Equation Modeling (SEM) approach using the SmartPLS analysis tool. The research findings indicate that service quality significantly influences CRM, while it does not have a direct significant impact on customer loyalty. Customer satisfaction significantly affects both CRM and customer loyalty.

Keywords: Service Quality, Customer Satisfaction, Supply Chain Value.

1. INTRODUCTION

Globalization and rapid technological development have been the primary drivers in transforming the business competition landscape. With the opening of international markets and global economic integration, companies are faced with increasingly fierce competition. Globalization enables companies to expand into broader markets, but at the same time, it forces them to compete with rivals from various corners of the world with diverse expertise and resources (Haeruddin et al., 2023). Technological advancements play a key role in shaping the dynamics of business competition. The information and communication technology revolution has changed how companies interact with customers, manage supply chains, and formulate marketing strategies (Lee & Yoo, 2019). Companies that can enhance operational efficiency and provide innovative products or services will gain a competitive advantage. In facing increasingly tight competition, marketing strategy becomes a key factor in achieving corporate goals, especially in building and maintaining customer loyalty (Azeem et al., 2021). Companies must utilize effective marketing

methods to attract customer attention, differentiate themselves from other competitors, and build long-term relationships with consumers (Distanont & Khongmalai, 2020; Udriyah et al., 2019).

Customer loyalty plays a crucial role in business success, forming a strong foundation for long-term growth and stability. A loyal customer is not only a steady source of income but also a key to reducing the cost of acquiring new customers. Positive reviews and recommendations from customers can be valuable assets, attracting new customers and building a strong brand image. Customer loyalty also creates resilience to competition because customers who feel emotionally connected to a brand tend to remain loyal even amid a wide range of market choices (Chang, 2020). Developing strong relationships with customers also allows companies to respond more effectively to customer feedback, facilitating customer-driven innovation that can enhance the relevance of products or services. By prioritizing and maintaining customer loyalty, companies can preserve competitive advantages, enhance business resilience, and create a solid foundation for sustainable growth (Kataria & Saini, 2020; Manzoor et al., 2020).

Customer loyalty is the result of a combination of several key factors integrated well by a company. One of the most dominant key factors is the quality of service, which plays a primary role in building a bond between the company and customers (Vuong et al., 2021; Alzoubi et al., 2022). When customers perceive that the service provided is of high quality, responsive, and meets their expectations, they feel valued and satisfied with the interaction. According to Supriyanto et al. (2021), service quality creates a positive experience that can enhance customer loyalty as customers feel emotionally connected to the company. This can lead to customer satisfaction reflected in the fulfillment of expectations regarding the provided products or services. Customers who are satisfied with their experience, whether related to products, the purchasing process, or services received, are more likely to become repeat customers (Fida et al., 2020). In addition to service quality and customer satisfaction, the company's supply chain value also plays a crucial role in building loyalty. Customers will appreciate the added value provided by the company through operational efficiency, product or service reliability, and availability.

Companies that can manage their supply chain well, consistently provide products or services, and offer significant added value can enhance trust and strengthen customer attachment (Aburayya et al., 2020). To remain relevant and competitive amid intense business competition, companies must pay special attention to service quality that can create customer satisfaction. In a dynamic and changing business environment, customer satisfaction is not just a goal but a key to building and maintaining a loyal customer base (Hallencreutz & Parmler, 2021).

2. LITERATURE REVIEW AND HIPOTESIS DEVELOPMENT

Providing superior service compared to competitors is a primary strategy for companies aiming to position themselves as market leaders and create strong customer loyalty. Superior service quality includes aspects such as responsiveness to customer needs, speed in problem resolution, ease of interaction, and delivering an overall positive customer experience (Shen & Yahya, 2021). Companies that can exceed customer expectations by providing better services than their competitors can build emotional bonds and deep trust. Moreover, delivering high-quality services not only creates customer satisfaction but also forms a solid foundation for building long-term loyalty. Satisfied customers are more likely to return for future purchases and consistently choose that company (Ricardianto et al., 2023). Customers who trust and are loyal to a company will also recommend it to others, generating positive effects in promotion and brand image formation. By focusing on excellent service, companies can create sustainable competitive

advantages, enhance customer retention, and ensure they remain the preferred choice in the eyes of consumers (Shah et al., 2020; Pakurár et al., 2019).

There is a close connection between service quality and Customer Relationship Management (CRM), where service quality can directly influence the effectiveness and success of CRM implementation. Aburayya et al. (2020) state that good service quality creates a strong foundation for building a positive relationship between the company and customers. According to Hallencreutz & Parmler (2021), service quality plays a crucial role in shaping customer loyalty with a significant positive impact. Similar statements are also affirmed by Dam & Dam (2021), emphasizing that the higher the service quality provided by a company, the closer the emotional attachment of customers to that company. Optimal service quality creates a positive experience that can build a stronger relationship between the company and customers. Excellent service quality can be a primary trigger for customers to transact repeatedly with the company, driving the formation of sustainable loyalty. Supriyanto et al. (2021) also state that customer loyalty is considered an indicator of the strength of the relationship between customer attitudes and loyalty in conducting repeated business with a company. Good service quality not only creates customer satisfaction but also becomes a primary determinant in forming enduring relationships and producing loyal customers (Fida et al., 2020). Therefore, a company's focus on improving service quality can be an effective strategy in creating customer loyalty and strengthening the company's position.

H1. Service quality has a positive effect on Customer Relationship Management (CRM)

H2. Service quality has a positive effect on customer loyalty

Customer satisfaction has become a primary focus in the marketing world as it is considered a key factor in business success. The understanding that customer satisfaction results from the comparison between actual performance and customer expectations forms the primary basis for meeting needs and enhancing the customer experience. With increasing competition across various industry sectors, companies tend to prioritize a customer satisfaction-focused marketing orientation to differentiate themselves from competitors (Hayati et al., 2020; Soliha et al., 2021). The creation of customer satisfaction brings several significant benefits, including establishing a harmonious relationship between the company and customers, where customer needs and expectations are effectively met. Customer satisfaction provides a strong foundation for repeat purchases and the creation of consumer loyalty (Khairawati, 2020). Satisfied customers tend to reselect products or services from a company that has provided a positive experience. Customer satisfaction can trigger positive word-of-mouth effects. Satisfied customers are likely to recommend to friends, family, or business associates, creating sustainable and convincing promotion for the company (Lee, 2019).

Manzoor et al. (2020) state that customer satisfaction has an influence on consistent consumer loyalty, consistent with the view that the higher the level of customer satisfaction, the higher the level of customer loyalty to the products or services provided by the company. Azeem et al. (2021) add a new dimension by stating that customer satisfaction can increase the purchasing intensity of the customer. In other words, satisfied customers not only remain loyal but can also increase the frequency and volume of purchases. Regarding the concept of customer loyalty, Abror et al. (2020) agree that satisfaction has a positive influence. However, Gopi & Samat (2020) highlight the importance of realizing that the increase in satisfaction does not always equate to an increase in loyalty in the same proportion. Thus, marketing strategies focused on customer

satisfaction are not only an essential need but also a smart strategy in managing and maintaining strong business relationships. Improving customer satisfaction can play a crucial role in shaping sustainable loyalty, creating a strong foundation for repeat purchases, and supporting long-term business growth.

H3. Customer satisfaction has a positive effect on Customer Relationship Management (CRM)

H4. Customer satisfaction has a positive effect on customer loyalty

Supply chain value refers to the concept where each stage in a supply chain contributes to the final value of the product or service provided to customers. The importance of supply chain value is to enhance competitiveness and overall business efficiency. Othman et al. (2020) state that supply chain value has a significant impact on customer loyalty through several mechanisms that focus on the overall customer experience. By efficiently managing the supply chain, companies can ensure consistent availability of products or services, provide customer satisfaction, and establish a foundation for strong relationships (Kataria & Saini, 2020). Speed and responsiveness in product delivery are key, where a well-managed supply chain can expedite delivery times, increase customer satisfaction, and shape a positive perception of the company (Lee & Yoo, 2019). Additionally, the consistent and high quality of products or services is also a positive impact of an optimal supply chain value, forming a strong basis for maintaining customer loyalty (Udriyah et al., 2019). Product or service innovation supported by an efficient supply chain can be an additional attraction, while effective management also creates a pleasant customer experience. This contributes to the creation of added value and differentiation that plays a role in shaping and maintaining customer loyalty, creating a favorable environment for business growth and sustainability (Haeruddin et al., 2023).

H5. Supply chain value has a positive influence on Customer Relationship Management (CRM)

H6. Supply chain value has a positive effect on customer loyalty

Customer Relationship Management (CRM) is a strategic approach that focuses on managing interactions and relationships between a company and its customers. Through the effective implementation of CRM systems, companies can collect, analyze, and leverage customer data to understand preferences, needs, and consumer behavior. With an in-depth understanding of customers, companies can formulate more targeted marketing strategies and tailor product or service offerings specifically to meet customer expectations. Sofi et al. (2020) emphasize that the role of CRM in shaping customer loyalty cannot be overlooked. By engaging customers more personally and providing customized experiences, companies can build stronger relationships with customers. CRM enables companies to provide more responsive services and empowers sales teams to quickly respond to customer needs (Guerola-Navarro et al., 2021; Nuseir & Refae, 2022). Additionally, through loyalty systems and incentive programs, companies can encourage repeat purchases, offer special discounts, or provide rewards to loyal customers. Thus, CRM is not just a data management tool but also a strategic key in building and maintaining customer loyalty, strengthening a company's position in the market, and improving customer retention (Alshurideh, 2022).

H7. Customer Relationship Management (CRM) has a positive effect on customer loyalty

H8. Customer Relationship Management (CRM) mediates the relationship between service quality and customer loyalty

H9. Customer Relationship Management (CRM) mediates the relationship between customer satisfaction and customer loyalty

H10. Customer Relationship Management (CRM) mediates the relationship between supply chain value and customer loyalty

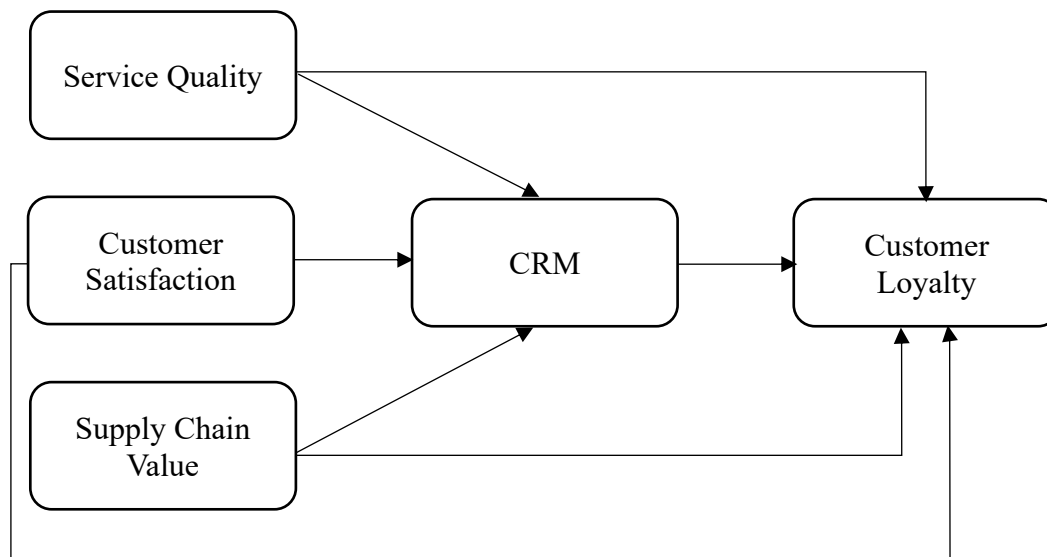


Figure 1. Theoretical Framework

3. RESEARCH METHODS

The research method employed in this study is quantitative, and data collection was conducted through questionnaires. The questionnaire utilized a Likert scale with a range of 1 to 7 points, reflecting the respondents' agreement level from strongly disagree to strongly agree. In an effort to obtain a representative sample, the simple random sampling technique was applied in this research. The population of respondents focused on managers and employees working in automotive sector companies listed on the Indonesia Stock Exchange (IDX). A total of 400 questionnaires were distributed to respondents online. Out of the total questionnaires given to respondents, 261 were successfully collected, indicating a questionnaire return rate of 65.25%. However, in the initial screening stage, 14 questionnaires were found to be incomplete, rendering them ineligible for further analysis. Therefore, the final sample for this study consists of 247 questionnaires considered valid and reliable for analysis. The data collection process took place from June to August 2023. In analyzing the collected data, this study applied the Structural Equation Modeling (SEM) approach using the SmartPLS analysis tool. This approach was chosen for its ability to provide an in-depth understanding of the complexity of relationships among variables within the research framework. Thus, through this method, the study aims to offer profound insights into the influence of service quality, customer satisfaction, supply chain value, and CRM's role on customer loyalty in the automotive sector in Indonesia.

4. RESEARCH RESULT

In this study, the analysis was conducted using SmartPLS software to test the influence of independent variables (service quality, customer satisfaction, supply chain value) and the mediating variable (Customer Relationship Management (CRM)) on the dependent variable (customer loyalty). In the initial analysis stage, a construct reliability test was performed to ensure that the constructs used to measure latent variables have an adequate level of reliability. A total of 3 constructs were used to measure the service quality variable, 4 constructs for measuring customer satisfaction and supply chain value variables, 3 constructs for measuring the CRM variable, and 4 constructs for measuring the customer loyalty variable. The standard loading factor obtained from the testing must exceed 0.6 to ensure the reliability of constructs in measuring latent variables. The construct reliability test aims to assess the extent to which the constructs used can be relied upon in measuring the latent variables under investigation. A loading factor above 0.6 indicates that the construct has a strong relationship with the measured latent variable. These results are crucial to ensure that the measurement tools used in the study are valid and reliable. The testing results can be seen in Figure 2, and the details are presented in Table 1, providing a visual and detailed overview of the construct reliability testing, which serves as the initial step in validating the research framework used in this study.

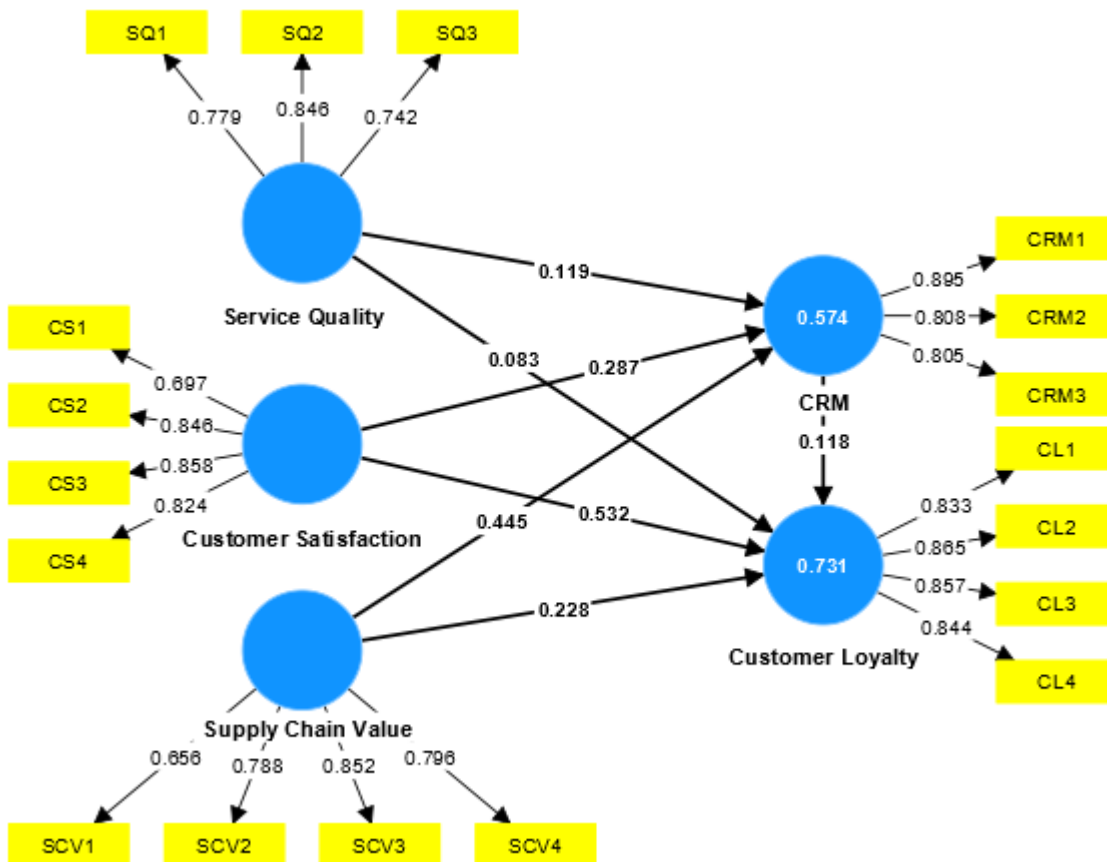


Figure 2. Analysis Results

Table 1. Std. Loading Factor

Variable	Service Quality	Customer Satisfaction	Supply Chain Value	CRM	Customer Loyalty
SQ1	0.779				
SQ2	0.846				
SQ3	0.742				
CS1		0.697			
CS2		0.846			
CS3		0.858			
CS4		0.824			
SCV1			0.656		
SCV2			0.788		
SCV3			0.852		
SCV4			0.796		
CRM1				0.895	
CRM2				0.808	
CRM3				0.805	
CL1					0.833
CL2					0.865
CL3					0.857
CL4					0.844

Table 1 above presents the results of the standard loading factor test for each variable in the study. Service quality produced satisfactory standard loading factor results, with SQ1 (0.779), SQ2 (0.846), and SQ3 (0.742). These figures indicate that each indicator has a significant contribution to measuring the service quality variable. Customer satisfaction also shows positive results with high standard loading factors for CS1 (0.697), CS2 (0.846), CS3 (0.858), and CS4 (0.824). These values confirm that each indicator is reliable in measuring customer satisfaction. Furthermore, supply chain value is supported by strong standard loading factors on SCV1 (0.656), SCV2 (0.788), SCV3 (0.852), and SCV4 (0.796). These results indicate that each indicator has a good contribution to measuring the supply chain value variable. Customer Relationship Management (CRM) shows high standard loading factors on all indicators, namely CRM1 (0.895), CRM2 (0.808), and CRM3 (0.805). This confirms that each CRM indicator can be relied upon as a measurement tool for the mediation variable. The customer loyalty variable also shows high standard loading factors on CL1 (0.833), CL2 (0.865), CL3 (0.857), and CL4 (0.844). These figures indicate that customer loyalty indicators make a significant contribution to measuring the variable.

. Reliability criteria are measured with the Cronbach's Alpha value, considered adequate if its value is higher than 0.7. A high Cronbach's Alpha value indicates that the indicators in a construct correlate well and are reliable in measuring the same variable. The results of the validity and reliability analysis are a critical step to ensure that the measurement tools used in this study have good measurement capabilities and can be relied upon to describe the relationships between the variables under investigation. By confirming the validity and reliability of constructs, this study strengthens its methodological foundation, providing higher confidence in the results of the structural analysis to be conducted in the next stage.

Table 2. Validity and Reliability Analysis Test

Variable	Cronbach's Alpha	Average Variance Extracted (AVE)
Service Quality	0.716	0.625
Customer Satisfaction	0.824	0.654
Supply Chain Value	0.785	0.603
CRM	0.786	0.701
Customer Loyalty	0.872	0.722

Table 2 reveals the results of the validity and reliability analysis for each variable in this study. The validity test is conducted by considering two main parameters, namely Cronbach's Alpha and Average Variance Extracted (AVE). The service quality variable obtains a Cronbach's Alpha value of 0.716 (> 0.7), reflecting adequate reliability, while the AVE value obtained is 0.625 (> 0.6), indicating good construct validity in measuring service quality. The validity test for the customer satisfaction variable shows positive results with a Cronbach's Alpha value of 0.824, indicating good reliability. The AVE value obtained is 0.654, meeting the threshold value criteria of 0.6, which means it is considered valid in measuring customer satisfaction. The supply chain value variable also shows good reliability with a Cronbach's Alpha value of 0.785. The AVE value obtained is 0.603, indicating that this variable is valid in measuring the supply chain value. Furthermore, the Customer Relationship Management (CRM) variable obtains a Cronbach's Alpha value of 0.786, indicating good reliability, and an AVE value of 0.701, indicating adequate construct validity. The customer loyalty variable shows excellent test results with a Cronbach's Alpha value of 0.872, reflecting high reliability. The AVE value of 0.722 confirms the construct validity in measuring customer loyalty.

In this research process, two forms of hypothesis testing are used to examine the relationships between the involved variables: direct hypothesis testing and indirect hypothesis testing (involving mediation factors). Direct hypothesis testing aims to evaluate the direct impact of independent variables on dependent variables without involving mediating variables. On the other hand, hypothesis testing using mediation factors aims to identify whether the relationship between independent variables and dependent variables can be influenced by the designated mediation variables. In hypothesis testing, significance is determined by the T-statistic and P-value generated. A T-statistic value above 1.96 or a P-value less than 0.05 indicates that the proposed hypothesis has a significant and acceptable effect. A T-statistic value of 1.96 is the critical threshold at a 95% confidence level, which can be used to determine statistical significance. The significance conclusion of hypothesis testing serves as the foundation for this research to formulate recommendations and practical implications that can be drawn from the statistical analysis results. Thus, through this approach, the research can contribute valuable insights into understanding the relationships between the variables under investigation.

Table 3. Hypothesis test

Hypothesis		T statistics	P values	Information
H1	Service Quality -> CRM	2.039	0.027	Significant
H2	Service Quality -> Customer Loyalty	1.552	0.124	Not Significant
H3	Customer Satisfaction -> CRM	2.768	0.007	Significant
H4	Customer Satisfaction -> Customer Loyalty	7.631	0.000	Significant
H5	Supply Chain Value -> CRM	3.559	0.001	Significant

H6	Supply Chain Value -> Customer Loyalty	1.262	0.210	Not Significant
H7	CRM -> Customer Loyalty	1.951	0.044	Significant

The results of the hypothesis testing presented in Table 3 above provide an overview of the relationships between the tested variables. Service quality has proven to have a significant impact on Customer Relationship Management (CRM), as evidenced by the T-statistics of 2.039 (> 1.96) and P-values of 0.027 (< 0.05). This finding aligns with Aburayya et al. (2020), indicating that companies need to pay special attention to service quality to enhance customer relationship management. However, the relationship between service quality and customer loyalty is not found to be significant, with T-statistics of 1.552 and P-values of 0.124. This finding contradicts the results of Hallencreutz & Parmler (2021), where service quality does not directly influence the level of customer loyalty. Furthermore, customer satisfaction is proven to significantly influence CRM, with the T-statistics obtained being 2.768 and P-values being 0.007. Moreover, customer satisfaction also proves to have a significant impact on customer loyalty, with T-statistics of 7.631 and P-values of 0.000. These results support the findings of Gopi & Samat (2020) and Abror et al. (2020), emphasizing the importance of ensuring customer satisfaction to enhance customer relationship management and create strong loyalty. Supply chain value also proves to have a significant impact on CRM, evidenced by T-statistics of 3.559 and P-values of 0.001, but not on customer loyalty, as the T-statistics obtained are 1.262 and P-values are 0.210. In line with the findings of Othman et al. (2020), this study's results indicate that values in the supply chain can contribute to improving customer relationship management but not always directly impact the level of customer loyalty. Furthermore, the direct role of CRM in customer loyalty is proven to be significant, with T-statistics of 1.951 and P-values of 0.044. This value indicates that companies with effective customer relationship management have higher levels of customer loyalty.

Table 4. Indirect Effect

Hypothesis		T statistics	P values	Information
H8	Service Quality -> CRM -> Customer Loyalty	2.705	0.013	Significant
H9	Customer Satisfaction -> CRM -> Customer Loyalty	5.239	0.000	Significant
H10	Supply Chain Value -> CRM -> Customer Loyalty	4.013	0.000	Significant

The results of the mediation test show significant findings related to the role of Customer Relationship Management (CRM) in connecting several independent variables with the level of customer loyalty (Table 4). The mediation test results show that CRM mediates the relationship between service quality and customer loyalty, obtaining T-statistics of 2.705 and P-values of 0.013. This finding confirms that the influence of service quality on customer loyalty can be explained through the mediating role of CRM. Therefore, companies focusing on improving service quality can leverage customer relationship management to strengthen customer loyalty. Furthermore, the mediation test results show that CRM also mediates the relationship between customer satisfaction and customer loyalty, obtaining high T-statistics of 5.239 and P-values of 0.000. This finding provides evidence that the critical role of CRM in shaping customer loyalty is further reinforced through the level of customer satisfaction. Thus, companies need to effectively manage customer satisfaction to stimulate strong customer relationship management and, ultimately, high levels of loyalty. CRM also plays a role as a mediator between supply chain value and customer loyalty, where with T-statistics of 4.013 and P-values of 0.000, this finding confirms that increasing values in the supply chain can enhance customer loyalty through customer relationship management.

Therefore, companies can optimize the values in their supply chain to support the development of stronger customer relationships and, ultimately, enhance customer loyalty.

5. CONCLUSION

The results of this research conclude that service quality, customer satisfaction, and supply chain value play crucial roles in shaping and influencing Customer Relationship Management (CRM) as well as customer loyalty towards the company. The research findings indicate that service quality has a significant impact on Customer Relationship Management (CRM), highlighting the importance of companies paying special attention to improving service quality to strengthen customer relationships. However, there is no direct significant influence between service quality and customer loyalty. This emphasizes the need for mediating variables such as CRM to explain this relationship. Customer satisfaction is proven to have a significant impact on Customer Relationship Management (CRM) and also has a strong direct influence on customer loyalty. This underscores that improving customer satisfaction can be an effective strategy to strengthen customer relationship management and, in turn, enhance customer loyalty. Supply chain value proves to have a significant impact on Customer Relationship Management (CRM), but it does not have a direct significant influence on customer loyalty. Nevertheless, supply chain value can increase customer loyalty through the mediation of customer relationship management. The direct role of customer relationship management in customer loyalty is proven to be significant, indicating that companies with effective customer relationship management can achieve higher levels of customer loyalty.

The implications of the research findings have significant impacts on companies across various sectors in Indonesia, especially in the context of increasing business competition. Companies in Indonesia need to pay greater attention to improving the quality of services offered to customers. High service quality is not only key to building customer satisfaction but also plays a crucial role in shaping positive customer perceptions of the company. Moreover, companies also need to understand the importance of customer satisfaction as a primary element in the company's marketing strategy.

REFERENCES

- Abror, A., Patrisia, D., Engriani, Y., Evanita, S., Yasri, Y., & Dastgir, S. (2020). Service quality, religiosity, customer satisfaction, customer engagement and Islamic bank's customer loyalty. *Journal of Islamic Marketing*, 11(6), 1691-1705.
- Aburayya, A., Marzouqi, A., Alawadhi, D., Abdouli, F., & Taryam, M. (2020). An empirical investigation of the effect of employees' customer orientation on customer loyalty through the mediating role of customer satisfaction and service quality. *Management Science Letters*, 10(10), 2147-2158.
- Alshurideh, M. (2022). Does electronic customer relationship management (E-CRM) affect service quality at private hospitals in Jordan?. *Uncertain Supply Chain Management*, 10(2), 325-332.
- Alzoubi, H., Alshurideh, M., Kurdi, B., Akour, I., & Aziz, R. (2022). Does BLE technology contribute towards improving marketing strategies, customers' satisfaction and loyalty? The role of open innovation. *International Journal of Data and Network Science*, 6(2), 449-460.

- Azeem, M., Ahmed, M., Haider, S., & Sajjad, M. (2021). Expanding competitive advantage through organizational culture, knowledge sharing and organizational innovation. *Technology in Society*, 66, 101635.
- Chang, W. J. (2020). Experiential marketing, brand image and brand loyalty: a case study of Starbucks. *British Food Journal*, 123(1), 209-223.
- Dam, S. M., & Dam, T. C. (2021). Relationships between service quality, brand image, customer satisfaction, and customer loyalty. *The Journal of Asian Finance, Economics and Business*, 8(3), 585-593.
- Distanont, A., & Khongmalai, O. (2020). The role of innovation in creating a competitive advantage. *Kasetsart Journal of Social Sciences*, 41(1), 15-21.
- Fida, B. A., Ahmed, U., Al-Balushi, Y., & Singh, D. (2020). Impact of service quality on customer loyalty and customer satisfaction in Islamic banks in the Sultanate of Oman. *Sage Open*, 10(2), 2158244020919517.
- Gopi, B., & Samat, N. (2020). The influence of food trucks' service quality on customer satisfaction and its impact toward customer loyalty. *British Food Journal*, 122(10), 3213-3226.
- Guerola-Navarro, V., Gil-Gomez, H., Oltra-Badenes, R., & Sendra-García, J. (2021). Customer relationship management and its impact on innovation: A literature review. *Journal of Business Research*, 129, 83-87.
- Haeruddin, M. I. W., Musa, M. I., & Kurniawan, A. W. (2023). Marketing strategy analysis in a global market. *Journal Management & Economics Review (JUMPER)*, 1(1), 17-24.
- Hallencreutz, J., & Parmler, J. (2021). Important drivers for customer satisfaction—from product focus to image and service quality. *Total quality management & business excellence*, 32(5-6), 501-510.
- Hayati, S., Suroso, A., Suliyanto, S., & Kaukab, M. (2020). Customer satisfaction as a mediation between micro banking image, customer relationship and customer loyalty. *Management Science Letters*, 10(11), 2561-2570.
- Kataria, S., & Saini, V. (2020). The mediating impact of customer satisfaction in relation of brand equity and brand loyalty: An empirical synthesis and re-examination. *South Asian Journal of Business Studies*, 9(1), 62-87.
- Kataria, S., & Saini, V. (2020). The mediating impact of customer satisfaction in relation of brand equity and brand loyalty: An empirical synthesis and re-examination. *South Asian Journal of Business Studies*, 9(1), 62-87.
- Khairawati, S. (2020). Effect of customer loyalty program on customer satisfaction and its impact on customer loyalty. *International Journal of Research in Business and Social Science (2147-4478)*, 9(1), 15-23.
- Lee, C. Y. (2019). Does corporate social responsibility influence customer loyalty in the Taiwan insurance sector? The role of corporate image and customer satisfaction. *Journal of Promotion Management*, 25(1), 43-64.
- Lee, K., & Yoo, J. (2019). How does open innovation lead competitive advantage? A dynamic capability view perspective. *PloS one*, 14(11), e0223405.
- Manzoor, U., Baig, S. A., Hashim, M., & Sami, A. (2020). Impact of social media marketing on consumer's purchase intentions: the mediating role of customer trust. *International Journal of Entrepreneurial Research*, 3(2), 41-48.

- Nuseir, M., & Refae, G. E. (2022). The effect of digital marketing capabilities on business performance enhancement: Mediating the role of customer relationship management (CRM). *International Journal of Data and Network Science*, 6(2), 295-304.
- Othman, B. A., Harun, A., De Almeida, N. M., & Sadq, Z. M. (2020). The effects on customer satisfaction and customer loyalty by integrating marketing communication and after sale service into the traditional marketing mix model of Umrah travel services in Malaysia. *Journal of islamic marketing*, 12(2), 363-388.
- Pakurár, M., Haddad, H., Nagy, J., Popp, J., & Oláh, J. (2019). The service quality dimensions that affect customer satisfaction in the Jordanian banking sector. *Sustainability*, 11(4), 1113.
- Ricardianto, P., Yanto, T., Wardhono, D., Fachrial, P., Sari, M., Suryobuwono, A., ... & Endri, E. (2023). The impact of service quality, ticket price policy and passenger trust on airport train passenger loyalty. *Uncertain Supply Chain Management*, 11(1), 307-318.
- Shah, F. T., Syed, Z., Imam, A., & Raza, A. (2020). The impact of airline service quality on passengers' behavioral intentions using passenger satisfaction as a mediator. *Journal of Air Transport Management*, 85, 101815.
- Shen, C., & Yahya, Y. (2021). The impact of service quality and price on passengers' loyalty towards low-cost airlines: The Southeast Asia perspective. *Journal of Air Transport Management*, 91, 101966.
- Sofi, M. R., Bashir, I., Parry, M. A., & Dar, A. (2020). The effect of customer relationship management (CRM) dimensions on hotel customer's satisfaction in Kashmir. *International Journal of Tourism Cities*, 6(3), 601-620.
- Soliha, E., Aquinia, A., Hayuningtias, K. A., & Ramadhan, K. R. (2021). The influence of experiential marketing and location on customer loyalty. *The Journal of Asian Finance, Economics and Business*, 8(3), 1327-1338.
- Sun, H., Rabbani, M. R., Ahmad, N., Sial, M. S., Cheng, G., Zia-Ud-Din, M., & Fu, Q. (2020). CSR, co-creation and green consumer loyalty: Are green banking initiatives important? A moderated mediation approach from an emerging economy. *Sustainability*, 12(24), 10688.
- Supriyanto, A., Wiyono, B. B., & Burhanuddin, B. (2021). Effects of service quality and customer satisfaction on loyalty of bank customers. *Cogent Business & Management*, 8(1), 1937847.
- Udriyah, U., Tham, J., & Azam, S. J. M. S. L. (2019). The effects of market orientation and innovation on competitive advantage and business performance of textile SMEs. *Management Science Letters*, 9(9), 1419-1428.
- Vuong, B., Tung, D., Tushar, H., Quan, T., & Giao, H. (2021). Determinates of factors influencing job satisfaction and organizational loyalty. *Management Science Letters*, 11(1), 203-212.

2. Peer review process



Wilson Rajagukguk <wrajagukguk.uki@gmail.com>

Your paper in USCM #2992

Babak Farhang <editor.uscm@gmail.com>

20 Oktober 2023 23.41

Kepada: Wilson Rajagukguk <wrajagukguk.uki@gmail.com>

Dear Author

I have now completed the review of your paper and would like to ask you to prepare a new revised version and upload into our system by this email.

Sincerely
Farhang

Review #1

This article is interesting and fits the focus and scope of the journal. He

can be accepted for publication with the following revisions:

1. Papers need to be organized more neatly to make it easier for readers.
2. Abstract, detailed words, introduction, results, conclusions and references must be added
3. Use abbreviations that comply with international standards and not in Indonesian.
4. Please have it corrected by a native English speaker or expert.

Wilson Rajagukguk <wrajagukguk.uki@gmail.com>
Kepada: Babak Farhang <editor.uscm@gmail.com>

25 Oktober 2023 13.26

Dear editor,


We have organized the manuscript as suggested by the editor, and revisions have been made (highlighted in yellow).

Below we attach the revised manuscript along with responses to reviewers comments.

If further revision is required, we are willing to do.

Regards

[Kutipan teks disembunyikan]

 **USCM #1010_Rev1.docx**
129K

SERVICE QUALITY AND SUPPLY CHAIN VALUE ON CUSTOMER LOYALTY: THE ROLE OF CUSTOMER RELATIONSHIP MANAGEMENT

Wilson Rajagukguk, Omas Bulan Samosir, Josia Rajagukguk, Hasiana Emanuela Rajagukguk

1. Postgraduate Program, Master of Management Program, and Faculty of Economic and Business, Universitas Kristen Indonesia, Jakarta, Indonesia
2. Faculty of Economic and Business, Universitas Indonesia, Jakarta, Indonesia
3. Postgraduate Master of Management, Universitas Indonesia, Jakarta, Indonesia
4. Faculty of Computer Science, Universitas Indonesia, Jakarta, Indonesia

Abstract

Intense business competition urges companies to continually enhance their marketing strategies to retain and attract customers. Therefore, a profound understanding of factors influencing customer loyalty becomes crucial. Service quality, customer satisfaction, and supply chain value are considered key factors affecting customer loyalty. However, the relationships between these variables and the role of Customer Relationship Management (CRM) as a mediator need further investigation, especially in the context of Indonesian companies. Hence, this research aims to contribute a deeper understanding of the interconnection between service quality, customer satisfaction, supply chain value, and customer loyalty, as well as to explore the role of CRM as an essential link in this dynamic. The research methodology employed is quantitative, utilizing a Likert scale questionnaire distributed online to managers and employees in the automotive sector listed on the Indonesia Stock Exchange (IDX). Out of 400 distributed questionnaires, 261 were successfully collected, with 14 incomplete responses, resulting in a final sample size of 247. Data collection took place from June to August 2023. In data analysis, the study applied the Structural Equation Modeling (SEM) approach using the SmartPLS analysis tool. The research findings indicate that service quality significantly influences CRM, while it does not have a direct significant impact on customer loyalty. Customer satisfaction significantly affects both CRM and customer loyalty. Supply chain value significantly influences CRM but does not have a direct impact on customer loyalty. Customer Relationship Management proves to mediate the relationships between service quality and customer loyalty, customer satisfaction and customer loyalty, as well as supply chain value and customer loyalty.

Keywords: Service Quality, Customer Satisfaction, Supply Chain Value, Customer Loyalty, Customer Relationship Management (CRM)

1. INTRODUCTION

Globalization and rapid technological development have been the primary drivers in transforming the business competition landscape. With the opening of international markets and global economic integration, companies are faced with increasingly fierce competition. Globalization enables companies to expand into broader markets, but at the same time, it forces them to compete with rivals from various corners of the world with diverse expertise and resources (Haeruddin et al., 2023). Technological advancements play a key role in shaping the dynamics of business competition. The information and communication technology revolution has changed how companies interact with customers, manage supply chains, and formulate marketing strategies

(Lee & Yoo, 2019; Nyadzayo & Khajehzadeh, 2016; Hofacker et al., 2020). Companies that can enhance operational efficiency and provide innovative products or services will gain a competitive advantage. In facing increasingly tight competition, marketing strategy becomes a key factor in achieving corporate goals, especially in building and maintaining customer loyalty (Azeem et al., 2021). Companies must utilize effective marketing methods to attract customer attention, differentiate themselves from other competitors, and build long-term relationships with consumers (Distanont & Khongmalai, 2020; Udriyah et al., 2019).

Customer loyalty plays a crucial role in business success, forming a strong foundation for long-term growth and stability. A loyal customer is not only a steady source of income but also a key to reducing the cost of acquiring new customers (Khan et al., 2022). In increasingly competitive environments, retaining existing customers is often more economical and yields stable revenue. Furthermore, customer loyalty will impact the sustainability of the company because loyal customers engage in repeat purchases, expand the range of products or services, and contribute to positive promotion through recommendations to friends and family. Another advantage lies in the positive reputation impact brought by loyal customers (Dam & Dam, 2021; Sun et al., 2020). Positive reviews and recommendations from customers can be valuable assets, attracting new customers and building a strong brand image. Customer loyalty also creates resilience to competition because customers who feel emotionally connected to a brand tend to remain loyal even amid a wide range of market choices (Chang, 2020). Developing strong relationships with customers also allows companies to respond more effectively to customer feedback, facilitating customer-driven innovation that can enhance the relevance of products or services. By prioritizing and maintaining customer loyalty, companies can preserve competitive advantages, enhance business resilience, and create a solid foundation for sustainable growth (Kataria & Saini, 2020; Manzoor et al., 2020).

Customer loyalty is the result of a combination of several key factors integrated well by a company. One of the most dominant key factors is the quality of service, which plays a primary role in building a bond between the company and customers (Vuong et al., 2021; Alzoubi et al., 2022). When customers perceive that the service provided is of high quality, responsive, and meets their expectations, they feel valued and satisfied with the interaction. According to Supriyanto et al. (2021), service quality creates a positive experience that can enhance customer loyalty as customers feel emotionally connected to the company. This can lead to customer satisfaction reflected in the fulfillment of expectations regarding the provided products or services. Customers who are satisfied with their experience, whether related to products, the purchasing process, or services received, are more likely to become repeat customers (Kurdi et al., 2020; Fida et al., 2020). In addition to service quality and customer satisfaction, the company's supply chain value also plays a crucial role in building loyalty. Customers will appreciate the added value provided by the company through operational efficiency, product or service reliability, and availability. Companies that can manage their supply chain well, consistently provide products or services, and offer significant added value can enhance trust and strengthen customer attachment (Aburayya et al., 2020; Asnawi et al., 2020).

To remain relevant and competitive amid intense business competition, companies must pay special attention to service quality that can create customer satisfaction. In a dynamic and changing business environment, customer satisfaction is not just a goal but a key to building and maintaining a loyal customer base (Hallencreutz & Parmler, 2021). By providing high-quality services, companies can create a positive experience for customers, strengthen emotional bonds, and evoke preferences for the company (Pakurár et al., 2019). Therefore, a focus on service quality

not only enhances customer satisfaction but also creates a strong foundation for building loyalty. Although some previous studies have investigated the influence of service quality and customer satisfaction on customer loyalty, the supply chain value factor has been less discussed. Hence, this study aims to fill that gap by analyzing the impact of service quality, customer satisfaction, and supply chain value on customer loyalty. Furthermore, this research makes an additional contribution by considering the role of Customer Relationship Management (CRM) as a mediator, helping explain how the relationship between service quality, customer satisfaction, and supply chain value influences customer loyalty.

2. LITERATURE REVIEW AND HIPOTESIS DEVELOPMENT

Providing superior service compared to competitors is a primary strategy for companies aiming to position themselves as market leaders and create strong customer loyalty. Superior service quality includes aspects such as responsiveness to customer needs, speed in problem resolution, ease of interaction, and delivering an overall positive customer experience (Asnawi et al., 2020; Nyadzayo & Khajehzadeh, 2016; Shen & Yahya, 2021). Companies that can exceed customer expectations by providing better services than their competitors can build emotional bonds and deep trust. Moreover, delivering high-quality services not only creates customer satisfaction but also forms a solid foundation for building long-term loyalty. Satisfied customers are more likely to return for future purchases and consistently choose that company (Ricardianto et al., 2023). Customers who trust and are loyal to a company will also recommend it to others, generating positive effects in promotion and brand image formation. By focusing on excellent service, companies can create sustainable competitive advantages, enhance customer retention, and ensure they remain the preferred choice in the eyes of consumers (Shah et al., 2020; Pakurár et al., 2019).

There is a close connection between service quality and Customer Relationship Management (CRM), where service quality can directly influence the effectiveness and success of CRM implementation. Aburayya et al. (2020) state that good service quality creates a strong foundation for building a positive relationship between the company and customers. According to Hallencreutz & Parmler (2021), service quality plays a crucial role in shaping customer loyalty with a significant positive impact. Similar statements are also affirmed by Dam & Dam (2021), emphasizing that the higher the service quality provided by a company, the closer the emotional attachment of customers to that company. Optimal service quality creates a positive experience that can build a stronger relationship between the company and customers. Excellent service quality can be a primary trigger for customers to transact repeatedly with the company, driving the formation of sustainable loyalty. Supriyanto et al. (2021) also state that customer loyalty is considered an indicator of the strength of the relationship between customer attitudes and loyalty in conducting repeated business with a company. Good service quality not only creates customer satisfaction but also becomes a primary determinant in forming enduring relationships and producing loyal customers (Fida et al., 2020). Therefore, a company's focus on improving service quality can be an effective strategy in creating customer loyalty and strengthening the company's position.

H1. Service quality has a positive effect on Customer Relationship Management (CRM)

H2. Service quality has a positive effect on customer loyalty

Customer satisfaction has become a primary focus in the marketing world as it is considered a key factor in business success. The understanding that customer satisfaction results from the comparison between actual performance and customer expectations forms the primary basis for meeting needs and enhancing the customer experience (Hofacker et al., 2020). With increasing competition across various industry sectors, companies tend to prioritize a customer satisfaction-focused marketing orientation to differentiate themselves from competitors (Hayati et al., 2020; Soliha et al., 2021). The creation of customer satisfaction brings several significant benefits, including establishing a harmonious relationship between the company and customers, where customer needs and expectations are effectively met. Customer satisfaction provides a strong foundation for repeat purchases and the creation of consumer loyalty (Khairawati, 2020; Almohaimmeed, 2019). Satisfied customers tend to reselect products or services from a company that has provided a positive experience. Customer satisfaction can trigger positive word-of-mouth effects. Satisfied customers are likely to recommend to friends, family, or business associates, creating sustainable and convincing promotion for the company (Lee, 2019).

Manzoor et al. (2020) state that customer satisfaction has an influence on consistent consumer loyalty, consistent with the view that the higher the level of customer satisfaction, the higher the level of customer loyalty to the products or services provided by the company. Azeem et al. (2021) add a new dimension by stating that customer satisfaction can increase the purchasing intensity of the customer. In other words, satisfied customers not only remain loyal but can also increase the frequency and volume of purchases. Regarding the concept of customer loyalty, Abror et al. (2020) agree that satisfaction has a positive influence. However, Gopi & Samat (2020) highlight the importance of realizing that the increase in satisfaction does not always equate to an increase in loyalty in the same proportion. Thus, marketing strategies focused on customer satisfaction are not only an essential need but also a smart strategy in managing and maintaining strong business relationships. Improving customer satisfaction can play a crucial role in shaping sustainable loyalty, creating a strong foundation for repeat purchases, and supporting long-term business growth.

H3. Customer satisfaction has a positive effect on Customer Relationship Management (CRM)

H4. Customer satisfaction has a positive effect on customer loyalty

Supply chain value refers to the concept where each stage in a supply chain contributes to the final value of the product or service provided to customers. The importance of supply chain value is to enhance competitiveness and overall business efficiency. Othman et al. (2020) state that supply chain value has a significant impact on customer loyalty through several mechanisms that focus on the overall customer experience. By efficiently managing the supply chain, companies can ensure consistent availability of products or services, provide customer satisfaction, and establish a foundation for strong relationships (Kataria & Saini, 2020). Speed and responsiveness in product delivery are key, where a well-managed supply chain can expedite delivery times, increase customer satisfaction, and shape a positive perception of the company (Lee & Yoo, 2019; Khan et al., 2022). Additionally, the consistent and high quality of products or services is also a positive impact of an optimal supply chain value, forming a strong basis for maintaining customer loyalty (Udriyah et al., 2019). Product or service innovation supported by an efficient supply chain can be an additional attraction, while effective management also creates a pleasant customer experience. This contributes to the creation of added value and differentiation that plays a role in

shaping and maintaining customer loyalty, creating a favorable environment for business growth and sustainability (Haeruddin et al., 2023).

H5. Supply chain value has a positive influence on Customer Relationship Management (CRM)

H6. Supply chain value has a positive effect on customer loyalty

Customer Relationship Management (CRM) is a strategic approach that focuses on managing interactions and relationships between a company and its customers. Through the effective implementation of CRM systems, companies can collect, analyze, and leverage customer data to understand preferences, needs, and consumer behavior (Ngelyaratan & Soediantono, 2022). With an in-depth understanding of customers, companies can formulate more targeted marketing strategies and tailor product or service offerings specifically to meet customer expectations. Sofi et al. (2020) emphasize that the role of CRM in shaping customer loyalty cannot be overlooked. By engaging customers more personally and providing customized experiences, companies can build stronger relationships with customers. CRM enables companies to provide more responsive services and empowers sales teams to quickly respond to customer needs (Guerola-Navarro et al., 2021; Nyadzayo & Khajehzadeh, 2016; Nuseir & Refae, 2022). Additionally, through loyalty systems and incentive programs, companies can encourage repeat purchases, offer special discounts, or provide rewards to loyal customers. Thus, CRM is not just a data management tool but also a strategic key in building and maintaining customer loyalty, strengthening a company's position in the market, and improving customer retention (Alshurideh, 2022).

H7. Customer Relationship Management (CRM) has a positive effect on customer loyalty

H8. Customer Relationship Management (CRM) mediates the relationship between service quality and customer loyalty

H9. Customer Relationship Management (CRM) mediates the relationship between customer satisfaction and customer loyalty

H10. Customer Relationship Management (CRM) mediates the relationship between supply chain value and customer loyalty

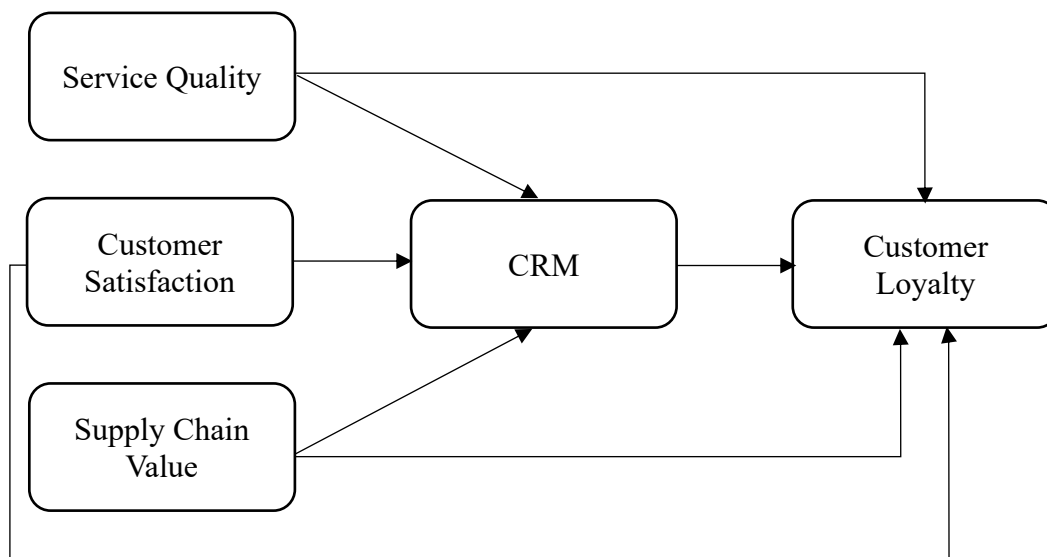


Figure 1. Theoretical Framework

3. RESEARCH METHODS

The research method employed in this study is quantitative, and data collection was conducted through questionnaires. The questionnaire utilized a Likert scale with a range of 1 to 7 points, reflecting the respondents' agreement level from strongly disagree to strongly agree. In an effort to obtain a representative sample, the simple random sampling technique was applied in this research. The population of respondents focused on managers and employees working in automotive sector companies listed on the Indonesia Stock Exchange (IDX). A total of 400 questionnaires were distributed to respondents online. Out of the total questionnaires given to respondents, 261 were successfully collected, indicating a questionnaire return rate of 65.25%. However, in the initial screening stage, 14 questionnaires were found to be incomplete, rendering them ineligible for further analysis. Therefore, the final sample for this study consists of 247 questionnaires considered valid and reliable for analysis. The data collection process took place from June to August 2023. In analyzing the collected data, this study applied the Structural Equation Modeling (SEM) approach using the SmartPLS analysis tool. This approach was chosen for its ability to provide an in-depth understanding of the complexity of relationships among variables within the research framework. Thus, through this method, the study aims to offer profound insights into the influence of service quality, customer satisfaction, supply chain value, and CRM's role on customer loyalty in the automotive sector in Indonesia.

4. RESEARCH RESULT

In this study, the analysis was conducted using SmartPLS software to test the influence of independent variables (service quality, customer satisfaction, supply chain value) and the mediating variable (Customer Relationship Management (CRM)) on the dependent variable (customer loyalty). In the initial analysis stage, a construct reliability test was performed to ensure that the constructs used to measure latent variables have an adequate level of reliability. A total of 3 constructs were used to measure the service quality variable, 4 constructs for measuring customer satisfaction and supply chain value variables, 3 constructs for measuring the CRM variable, and 4 constructs for measuring the customer loyalty variable. The standard loading factor obtained from the testing must exceed 0.6 to ensure the reliability of constructs in measuring latent variables. The construct reliability test aims to assess the extent to which the constructs used can be relied upon in measuring the latent variables under investigation. A loading factor above 0.6 indicates that the construct has a strong relationship with the measured latent variable. These results are crucial to ensure that the measurement tools used in the study are valid and reliable. The testing results can be seen in Figure 2, and the details are presented in Table 1, providing a visual and detailed overview of the construct reliability testing, which serves as the initial step in validating the research framework used in this study.

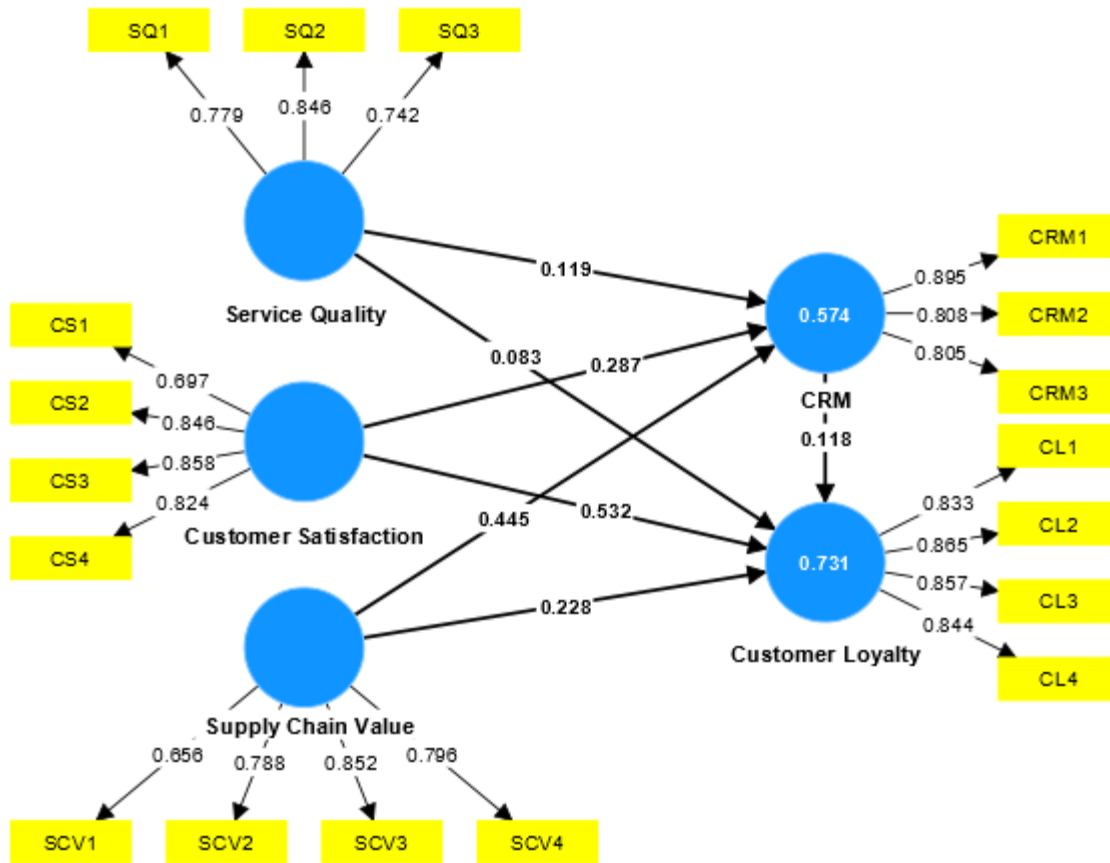


Figure 2. Analysis Results

Table 1. Std. Loading Factor

Variable	Service Quality	Customer Satisfaction	Supply Chain Value	CRM	Customer Loyalty
SQ1	0.779				
SQ2	0.846				
SQ3	0.742				
CS1		0.697			
CS2		0.846			
CS3		0.858			
CS4		0.824			
SCV1			0.656		
SCV2			0.788		
SCV3			0.852		
SCV4			0.796		
CRM1				0.895	
CRM2				0.808	
CRM3				0.805	
CL1					0.833
CL2					0.865

CL3					0.857
CL4					0.844

Table 1 above presents the results of the standard loading factor test for each variable in the study. Service quality produced satisfactory standard loading factor results, with SQ1 (0.779), SQ2 (0.846), and SQ3 (0.742). These figures indicate that each indicator has a significant contribution to measuring the service quality variable. Customer satisfaction also shows positive results with high standard loading factors for CS1 (0.697), CS2 (0.846), CS3 (0.858), and CS4 (0.824). These values confirm that each indicator is reliable in measuring customer satisfaction. Furthermore, supply chain value is supported by strong standard loading factors on SCV1 (0.656), SCV2 (0.788), SCV3 (0.852), and SCV4 (0.796). These results indicate that each indicator has a good contribution to measuring the supply chain value variable. Customer Relationship Management (CRM) shows high standard loading factors on all indicators, namely CRM1 (0.895), CRM2 (0.808), and CRM3 (0.805). This confirms that each CRM indicator can be relied upon as a measurement tool for the mediation variable. The customer loyalty variable also shows high standard loading factors on CL1 (0.833), CL2 (0.865), CL3 (0.857), and CL4 (0.844). These figures indicate that customer loyalty indicators make a significant contribution to measuring the variable. Thus, the results of the standard loading factor test provide confidence that each indicator in the variable constructs has sufficient validity and reliability, strengthening the basis for structural analysis and interpretation of results within the research framework.

The next step in this study involves the validity and reliability analysis to ensure that the constructs used are reliable and valid. The validity test aims to evaluate the extent to which a construct can be considered valid in measuring related latent variables. The results of the validity test depend on the value of Average Variance Extracted (AVE), which is considered adequate if its value is higher than 0.6. In the reliability test, the focus is given to proving that the constructs used can be considered reliable in measuring latent variables. Reliability criteria are measured with the Cronbach's Alpha value, considered adequate if its value is higher than 0.7. A high Cronbach's Alpha value indicates that the indicators in a construct correlate well and are reliable in measuring the same variable. The results of the validity and reliability analysis are a critical step to ensure that the measurement tools used in this study have good measurement capabilities and can be relied upon to describe the relationships between the variables under investigation. By confirming the validity and reliability of constructs, this study strengthens its methodological foundation, providing higher confidence in the results of the structural analysis to be conducted in the next stage.

Table 2. Validity and Reliability Analysis Test

Variable	Cronbach's Alpha	Average Variance Extracted (AVE)
Service Quality	0.716	0.625
Customer Satisfaction	0.824	0.654
Supply Chain Value	0.785	0.603
CRM	0.786	0.701
Customer Loyalty	0.872	0.722

Table 2 reveals the results of the validity and reliability analysis for each variable in this study. The validity test is conducted by considering two main parameters, namely Cronbach's

Alpha and Average Variance Extracted (AVE). The service quality variable obtains a Cronbach's Alpha value of 0.716 (> 0.7), reflecting adequate reliability, while the AVE value obtained is 0.625 (> 0.6), indicating good construct validity in measuring service quality. The validity test for the customer satisfaction variable shows positive results with a Cronbach's Alpha value of 0.824, indicating good reliability. The AVE value obtained is 0.654, meeting the threshold value criteria of 0.6, which means it is considered valid in measuring customer satisfaction. The supply chain value variable also shows good reliability with a Cronbach's Alpha value of 0.785. The AVE value obtained is 0.603, indicating that this variable is valid in measuring the supply chain value. Furthermore, the Customer Relationship Management (CRM) variable obtains a Cronbach's Alpha value of 0.786, indicating good reliability, and an AVE value of 0.701, indicating adequate construct validity. The customer loyalty variable shows excellent test results with a Cronbach's Alpha value of 0.872, reflecting high reliability. The AVE value of 0.722 confirms the construct validity in measuring customer loyalty.

In this research process, two forms of hypothesis testing are used to examine the relationships between the involved variables: direct hypothesis testing and indirect hypothesis testing (involving mediation factors). Direct hypothesis testing aims to evaluate the direct impact of independent variables on dependent variables without involving mediating variables. On the other hand, hypothesis testing using mediation factors aims to identify whether the relationship between independent variables and dependent variables can be influenced by the designated mediation variables. In hypothesis testing, significance is determined by the T-statistic and P-value generated. A T-statistic value above 1.96 or a P-value less than 0.05 indicates that the proposed hypothesis has a significant and acceptable effect. A T-statistic value of 1.96 is the critical threshold at a 95% confidence level, which can be used to determine statistical significance. The significance conclusion of hypothesis testing serves as the foundation for this research to formulate recommendations and practical implications that can be drawn from the statistical analysis results. Thus, through this approach, the research can contribute valuable insights into understanding the relationships between the variables under investigation.

Table 3. Hypothesis test

Hypothesis		T statistics	P values	Information
H1	Service Quality -> CRM	2.039	0.027	Significant
H2	Service Quality -> Customer Loyalty	1.552	0.124	Not Significant
H3	Customer Satisfaction -> CRM	2.768	0.007	Significant
H4	Customer Satisfaction -> Customer Loyalty	7.631	0.000	Significant
H5	Supply Chain Value -> CRM	3.559	0.001	Significant
H6	Supply Chain Value -> Customer Loyalty	1.262	0.210	Not Significant
H7	CRM -> Customer Loyalty	1.951	0.044	Significant

The results of the hypothesis testing presented in Table 3 above provide an overview of the relationships between the tested variables. Service quality has proven to have a significant impact on Customer Relationship Management (CRM), as evidenced by the T-statistics of 2.039 (> 1.96) and P-values of 0.027 (< 0.05). This finding aligns with Aburayya et al. (2020), indicating that companies need to pay special attention to service quality to enhance customer relationship management. However, the relationship between service quality and customer loyalty is not found to be significant, with T-statistics of 1.552 and P-values of 0.124. This finding contradicts the

results of Hallencreutz & Parmler (2021), where service quality does not directly influence the level of customer loyalty. Furthermore, customer satisfaction is proven to significantly influence CRM, with the T-statistics obtained being 2.768 and P-values being 0.007. Moreover, customer satisfaction also proves to have a significant impact on customer loyalty, with T-statistics of 7.631 and P-values of 0.000. These results support the findings of Gopi & Samat (2020) and Abror et al. (2020), emphasizing the importance of ensuring customer satisfaction to enhance customer relationship management and create strong loyalty. Supply chain value also proves to have a significant impact on CRM, evidenced by T-statistics of 3.559 and P-values of 0.001, but not on customer loyalty, as the T-statistics obtained are 1.262 and P-values are 0.210. In line with the findings of Othman et al. (2020), this study's results indicate that values in the supply chain can contribute to improving customer relationship management but not always directly impact the level of customer loyalty. Furthermore, the direct role of CRM in customer loyalty is proven to be significant, with T-statistics of 1.951 and P-values of 0.044. This value indicates that companies with effective customer relationship management have higher levels of customer loyalty.

Table 4. Indirect Effect

Hypothesis		T statistics	P values	Information
H8	Service Quality -> CRM -> Customer Loyalty	2.705	0.013	Significant
H9	Customer Satisfaction -> CRM -> Customer Loyalty	5.239	0.000	Significant
H10	Supply Chain Value -> CRM -> Customer Loyalty	4.013	0.000	Significant

The results of the mediation test show significant findings related to the role of Customer Relationship Management (CRM) in connecting several independent variables with the level of customer loyalty (Table 4). The mediation test results show that CRM mediates the relationship between service quality and customer loyalty, obtaining T-statistics of 2.705 and P-values of 0.013. This finding confirms that the influence of service quality on customer loyalty can be explained through the mediating role of CRM. Therefore, companies focusing on improving service quality can leverage customer relationship management to strengthen customer loyalty. Furthermore, the mediation test results show that CRM also mediates the relationship between customer satisfaction and customer loyalty, obtaining high T-statistics of 5.239 and P-values of 0.000. This finding provides evidence that the critical role of CRM in shaping customer loyalty is further reinforced through the level of customer satisfaction. Thus, companies need to effectively manage customer satisfaction to stimulate strong customer relationship management and, ultimately, high levels of loyalty. CRM also plays a role as a mediator between supply chain value and customer loyalty, where with T-statistics of 4.013 and P-values of 0.000, this finding confirms that increasing values in the supply chain can enhance customer loyalty through customer relationship management. Therefore, companies can optimize the values in their supply chain to support the development of stronger customer relationships and, ultimately, enhance customer loyalty.

5. CONCLUSION

The results of this research conclude that service quality, customer satisfaction, and supply chain value play crucial roles in shaping and influencing Customer Relationship Management (CRM) as well as customer loyalty towards the company. The research findings indicate that service quality has a significant impact on Customer Relationship Management (CRM), highlighting the importance of companies paying special attention to improving service quality to

strengthen customer relationships. However, there is no direct significant influence between service quality and customer loyalty. This emphasizes the need for mediating variables such as CRM to explain this relationship. Customer satisfaction is proven to have a significant impact on Customer Relationship Management (CRM) and also has a strong direct influence on customer loyalty. This underscores that improving customer satisfaction can be an effective strategy to strengthen customer relationship management and, in turn, enhance customer loyalty. Supply chain value proves to have a significant impact on Customer Relationship Management (CRM), but it does not have a direct significant influence on customer loyalty. Nevertheless, supply chain value can increase customer loyalty through the mediation of customer relationship management. The direct role of customer relationship management in customer loyalty is proven to be significant, indicating that companies with effective customer relationship management can achieve higher levels of customer loyalty.

The implications of the research findings have significant impacts on companies across various sectors in Indonesia, especially in the context of increasing business competition. Companies in Indonesia need to pay greater attention to improving the quality of services offered to customers. High service quality is not only key to building customer satisfaction but also plays a crucial role in shaping positive customer perceptions of the company. Moreover, companies also need to understand the importance of customer satisfaction as a primary element in the company's marketing strategy. Improving customer satisfaction will not only create a more harmonious relationship between the company and customers but also provide a strong foundation for repeat purchases and the creation of consumer loyalty. Furthermore, efficiency in the supply chain value is also an essential aspect that companies need to consider. Optimizing the supply chain can improve operational performance, reduce costs, and ultimately contribute to the improvement of service quality. Thus, companies can achieve higher competitive differentiation in the market. The implementation of effective Customer Relationship Management (CRM) systems is considered a key success factor in maximizing the positive influence of these variables on customer loyalty. A good CRM system can help companies understand individual customer needs, provide personalized services, and build meaningful interactions. Therefore, investing in CRM technology and training employees to manage customer data effectively can be a highly valuable long-term investment.

REFERENCES

- Abror, A., Patrisia, D., Engriani, Y., Evanita, S., Yasri, Y., & Dastgir, S. (2020). Service quality, religiosity, customer satisfaction, customer engagement and Islamic bank's customer loyalty. *Journal of Islamic Marketing*, 11(6), 1691-1705.
- Aburayya, A., Marzouqi, A., Alawadhi, D., Abdouli, F., & Taryam, M. (2020). An empirical investigation of the effect of employees' customer orientation on customer loyalty through the mediating role of customer satisfaction and service quality. *Management Science Letters*, 10(10), 2147-2158.
- Almohaimmeed, B. (2019). Pillars of customer retention: An empirical study on the influence of customer satisfaction, customer loyalty, customer profitability on customer retention. *Serbian Journal of Management*, 14(2), 421-435.
- Alshurideh, M. (2022). Does electronic customer relationship management (E-CRM) affect service quality at private hospitals in Jordan?. *Uncertain Supply Chain Management*, 10(2), 325-332.

- Alzoubi, H., Alshurideh, M., Kurdi, B., Akour, I., & Aziz, R. (2022). Does BLE technology contribute towards improving marketing strategies, customers' satisfaction and loyalty? The role of open innovation. *International Journal of Data and Network Science*, 6(2), 449-460.
- Asnawi, N., Sukoco, B. M., & Fanani, M. A. (2020). The role of service quality within Indonesian customers satisfaction and loyalty and its impact on Islamic banks. *Journal of Islamic Marketing*, 11(1), 192-212.
- Azeem, M., Ahmed, M., Haider, S., & Sajjad, M. (2021). Expanding competitive advantage through organizational culture, knowledge sharing and organizational innovation. *Technology in Society*, 66, 101635.
- Chang, W. J. (2020). Experiential marketing, brand image and brand loyalty: a case study of Starbucks. *British Food Journal*, 123(1), 209-223.
- Dam, S. M., & Dam, T. C. (2021). Relationships between service quality, brand image, customer satisfaction, and customer loyalty. *The Journal of Asian Finance, Economics and Business*, 8(3), 585-593.
- Distanont, A., & Khongmalai, O. (2020). The role of innovation in creating a competitive advantage. *Kasetsart Journal of Social Sciences*, 41(1), 15-21.
- Fida, B. A., Ahmed, U., Al-Balushi, Y., & Singh, D. (2020). Impact of service quality on customer loyalty and customer satisfaction in Islamic banks in the Sultanate of Oman. *Sage Open*, 10(2), 2158244020919517.
- Gopi, B., & Samat, N. (2020). The influence of food trucks' service quality on customer satisfaction and its impact toward customer loyalty. *British Food Journal*, 122(10), 3213-3226.
- Guerola-Navarro, V., Gil-Gomez, H., Oltra-Badenes, R., & Sendra-García, J. (2021). Customer relationship management and its impact on innovation: A literature review. *Journal of Business Research*, 129, 83-87.
- Haeruddin, M. I. W., Musa, M. I., & Kurniawan, A. W. (2023). Marketing strategy analysis in a global market. *Journal Management & Economics Review (JUMPER)*, 1(1), 17-24.
- Hallencreutz, J., & Parmler, J. (2021). Important drivers for customer satisfaction—from product focus to image and service quality. *Total quality management & business excellence*, 32(5-6), 501-510.
- Hayati, S., Suroso, A., Suliyanto, S., & Kaukab, M. (2020). Customer satisfaction as a mediation between micro banking image, customer relationship and customer loyalty. *Management Science Letters*, 10(11), 2561-2570.
- Hofacker, C., Golgeci, I., Pillai, K. G., & Gligor, D. M. (2020). Digital marketing and business-to-business relationships: a close look at the interface and a roadmap for the future. *European Journal of Marketing*, 54(6), 1161-1179.
- Kataria, S., & Saini, V. (2020). The mediating impact of customer satisfaction in relation of brand equity and brand loyalty: An empirical synthesis and re-examination. *South Asian Journal of Business Studies*, 9(1), 62-87.
- Kataria, S., & Saini, V. (2020). The mediating impact of customer satisfaction in relation of brand equity and brand loyalty: An empirical synthesis and re-examination. *South Asian Journal of Business Studies*, 9(1), 62-87.
- Khairawati, S. (2020). Effect of customer loyalty program on customer satisfaction and its impact on customer loyalty. *International Journal of Research in Business and Social Science* (2147-4478), 9(1), 15-23.

- Khan, R. U., Salamzadeh, Y., Iqbal, Q., & Yang, S. (2022). The impact of customer relationship management and company reputation on customer loyalty: The mediating role of customer satisfaction. *Journal of Relationship Marketing*, 21(1), 1-26.
- Kurdi, B., Alshurideh, M., & Alnaser, A. (2020). The impact of employee satisfaction on customer satisfaction: Theoretical and empirical underpinning. *Management Science Letters*, 10(15), 3561-3570.
- Lee, C. Y. (2019). Does corporate social responsibility influence customer loyalty in the Taiwan insurance sector? The role of corporate image and customer satisfaction. *Journal of Promotion Management*, 25(1), 43-64.
- Lee, K., & Yoo, J. (2019). How does open innovation lead competitive advantage? A dynamic capability view perspective. *PloS one*, 14(11), e0223405.
- Manzoor, U., Baig, S. A., Hashim, M., & Sami, A. (2020). Impact of social media marketing on consumer's purchase intentions: the mediating role of customer trust. *International Journal of Entrepreneurial Research*, 3(2), 41-48.
- Ngelyaratan, D., & Soediantono, D. (2022). Customer relationship management (CRM) and recommendation for implementation in the defense industry: a literature review. *Journal of Industrial Engineering & Management Research*, 3(3), 17-34.
- Nuseir, M., & Refae, G. E. (2022). The effect of digital marketing capabilities on business performance enhancement: Mediating the role of customer relationship management (CRM). *International Journal of Data and Network Science*, 6(2), 295-304.
- Nyadzayo, M. W., & Khajehzadeh, S. (2016). The antecedents of customer loyalty: A moderated mediation model of customer relationship management quality and brand image. *Journal of retailing and consumer services*, 30, 262-270.
- Othman, B. A., Harun, A., De Almeida, N. M., & Sadq, Z. M. (2020). The effects on customer satisfaction and customer loyalty by integrating marketing communication and after sale service into the traditional marketing mix model of Umrah travel services in Malaysia. *Journal of islamic marketing*, 12(2), 363-388.
- Pakurár, M., Haddad, H., Nagy, J., Popp, J., & Oláh, J. (2019). The service quality dimensions that affect customer satisfaction in the Jordanian banking sector. *Sustainability*, 11(4), 1113.
- Ricardianto, P., Yanto, T., Wardhono, D., Fachrial, P., Sari, M., Suryobuwono, A., ... & Endri, E. (2023). The impact of service quality, ticket price policy and passenger trust on airport train passenger loyalty. *Uncertain Supply Chain Management*, 11(1), 307-318.
- Shah, F. T., Syed, Z., Imam, A., & Raza, A. (2020). The impact of airline service quality on passengers' behavioral intentions using passenger satisfaction as a mediator. *Journal of Air Transport Management*, 85, 101815.
- Shen, C., & Yahya, Y. (2021). The impact of service quality and price on passengers' loyalty towards low-cost airlines: The Southeast Asia perspective. *Journal of Air Transport Management*, 91, 101966.
- Sofi, M. R., Bashir, I., Parry, M. A., & Dar, A. (2020). The effect of customer relationship management (CRM) dimensions on hotel customer's satisfaction in Kashmir. *International Journal of Tourism Cities*, 6(3), 601-620.
- Soliha, E., Aquinia, A., Hayuningtias, K. A., & Ramadhan, K. R. (2021). The influence of experiential marketing and location on customer loyalty. *The Journal of Asian Finance, Economics and Business*, 8(3), 1327-1338.

- Sun, H., Rabbani, M. R., Ahmad, N., Sial, M. S., Cheng, G., Zia-Ud-Din, M., & Fu, Q. (2020). CSR, co-creation and green consumer loyalty: Are green banking initiatives important? A moderated mediation approach from an emerging economy. *Sustainability*, *12*(24), 10688.
- Supriyanto, A., Wiyono, B. B., & Burhanuddin, B. (2021). Effects of service quality and customer satisfaction on loyalty of bank customers. *Cogent Business & Management*, *8*(1), 1937847.
- Udriyah, U., Tham, J., & Azam, S. J. M. S. L. (2019). The effects of market orientation and innovation on competitive advantage and business performance of textile SMEs. *Management Science Letters*, *9*(9), 1419-1428.
- Vuong, B., Tung, D., Tushar, H., Quan, T., & Giao, H. (2021). Determinates of factors influencing job satisfaction and organizational loyalty. *Management Science Letters*, *11*(1), 203-212.

3. Comments from editorial board & invoice



Wilson Rajagukguk <wrajagukguk.uki@gmail.com>

Your paper in USCM # 2992

Babak Farhang <editor.uscm@gmail.com>

17 April 2023 23.41

Kepada: Wilson Rajagukguk <wrajagukguk.uki@gmail.com>

Dear Wilson

we carefully reviewed and decided to publish your paper. Please note this paper will receive volume and number only when we receive the full payment. Kindly please visit our website at <https://www.growingscience.com/uscm/online.html> download your paper, read it very carefully and let me know if there is any problem. Attached, please find the LOA. Also, please sign the attached copyright form and email it back to us.

Sincerely
Farhang

Wilson Rajagukguk <wrajagukguk.uki@gmail.com>

19 April 2021 14.45

Kepada: Babak Farhang <editor.uscm@gmail.com>

Dear editor,

Thank you for your email.
Yes. We agree with the apc.
Please inform us the payment methods.

Regards

[Kutipan teks disembunyikan]

4. Published online, copyright & acceptance letter



Wilson Rajagukguk <wrajagukguk.uki@gmail.com>

Your paper in USCM #2992

Babak Farhang <editor.uscm@gmail.com>

1 Desember 2021 22.29

Kepada: Wilson Rajagukguk <wrajagukguk.uki@gmail.com>

Dear Wilson

Kindly, please visit our website at <http://www.growingscience.com/uscm/online.html> download your paper, read it very carefully and let me know if there is any problem. Attached, please find the acceptance letter. Also, please sign the attached copyright form and email it back to me.

Sincerely
Farhang

2 lampiran



acceptance letter.pdf

119K



CopyrightUSCM.doc

29K

Wilson Rajagukguk <wrajagukguk.uki@gmail.com>

10 Desember 2023 14.45

Kepada: Babak Farhang <editor.uscm@gmail.com>

Dear editor,

Thank you for sending the acceptance letter and publishing our paper.
Below we attach a signed copyright form.

Regards,

[Kutipan teks disembunyikan]



CopyrightUSCM-signed.pdf

49K

Babak Farhang <editor.uscm@gmail.com>

10 Desember 2023 16.11

Kepada: Wilson Rajagukguk <wrajagukguk.uki@gmail.com>

Received, thank you.

Sincerely
Farhang

[Kutipan teks disembunyikan]



From: Growing Science
200 King street North
N2J 4Z4, Waterloo, Ontario,
Canada, Tel: +1-516-243-7112
Date: December 14, 2023

Dear *Wilson Rajagukguk*

I would like to confirm that your paper entitled “**Service quality and supply chain value on customer loyalty: The role of customer relationship management**” with *Omas Bulan Samosir, Josia Rajagukguk and Hasiana Emanuela Rajagukguk* has been accepted for publication *Uncertain Supply Chain Management*, An international journal.

Sincerely,

Seyed Jafar Sadjadi

Growing Science

CONTRIBUTING AUTHOR COPYRIGHT RELEASE FORM

As author of the article/contribution entitled Service quality and supply chain value on customer loyalty: The role of customer relationship management


to appear in a volume of *Uncertain Supply Chain Management*, I hereby agree to the following:

1. To grant to Uncertain Supply Chain Management and Growing Science, copyright of the above named article/contribution. *Uncertain Supply Chain Management* and Growing Science thereby retain full and exclusive right to publish, market, and sell this material in any and all editions, in the English language or otherwise, of the *journal Uncertain Supply Chain Management*.
2. I warrant to *Uncertain Supply Chain Management* and Growing Science that I am the (an) author of the above-named article/contribution and that I am the (a) copyright holder of the above-named article/contribution granted to *Uncertain Supply Chain Management* and Growing Science.
3. I warrant that, where necessary and required, I have otherwise written permission for the use of any and all copyrighted materials used in the above-named article/contribution. I understand that I am responsible for all costs of gaining written permission for use of copyrighted materials. (A sample copy of a copyright release form accompanies this form.)
4. I agree to assume full liability to Uncertain Supply Chain Management and Growing Science and to hold *Uncertain Supply Chain Management* and Growing Science harmless for any claim or suit filed against *Uncertain Supply Chain Management* and Growing Science for violation of copyrighted material used in the above-named article/contribution.

Please sign and date this form and retain a copy for your records. Please return the original form to *Uncertain Supply Chain Management*. Publication of your article/contribution cannot proceed until this form is received by Uncertain Supply Chain Management.

Thank you for your cooperation.

Name (please print): Wilson Rajagukguk

Signature:  _____

Date: 14 Dec 2023

Uncertain Supply Chain Management

homepage: www.GrowingScience.com/uscm

Service quality and supply chain value on customer loyalty: The role of customer relationship management

Wilson Rajagukguk^{a*}, Omas Bulan Samosir^b, Josia Rajagukguk^c and Hasiana Emanuela Rajagukguk^d

^aPostgraduate Program, Master of Management Program, and Faculty of Economic and Business, Universitas Kristen Indonesia, Jakarta, Indonesia

^bFaculty of Economic and Business, Universitas Indonesia, Jakarta, Indonesia

^cPostgraduate Master of Management, Universitas Indonesia, Jakarta, Indonesia

^dFaculty of Computer Science, Universitas Indonesia, Jakarta, Indonesia

ABSTRACT

Article history:

Received September 2, 2023

Received in revised format

October 25, 2023

Accepted December 10 2023

Available online

December 10 2023

Keywords:

Service Quality

Customer Satisfaction

Supply Chain Value

Customer Loyalty

Customer Relationship

Management (CRM)

Intense business competition urges companies to continually enhance their marketing strategies to retain and attract customers. Therefore, a profound understanding of factors influencing customer loyalty becomes crucial. Service quality, customer satisfaction, and supply chain value are considered key factors affecting customer loyalty. However, the relationships between these variables and the role of Customer Relationship Management (CRM) as a mediator need further investigation, especially in the context of Indonesian companies. Hence, this research aims to contribute a deeper understanding of the interconnection between service quality, customer satisfaction, supply chain value, and customer loyalty, as well as to explore the role of CRM as an essential link in this dynamic. The research methodology employed is quantitative, utilizing a Likert scale questionnaire distributed online to managers and employees in the automotive sector listed on the Indonesia Stock Exchange (IDX). Out of 400 distributed questionnaires, 261 were successfully collected, with 14 incomplete responses, resulting in a final sample size of 247. Data collection took place from June to August 2023. In data analysis, the study applied the Structural Equation Modeling (SEM) approach using the SmartPLS analysis tool. The research findings indicate that service quality significantly influences CRM, while it does not have a direct significant impact on customer loyalty. Customer satisfaction significantly affects both CRM and customer loyalty. Supply chain value significantly influences CRM but does not have a direct impact on customer loyalty. Customer Relationship Management proves to mediate the relationships between service quality and customer loyalty, customer satisfaction and customer loyalty, as well as supply chain value and customer loyalty.

© 2024 by the authors; licensee Growing Science, Canada.

1. Introduction

Globalization and rapid technological development have been the primary drivers in transforming the business competition landscape. With the opening of international markets and global economic integration, companies are faced with increasingly fierce competition. Globalization enables companies to expand into broader markets, but at the same time, it forces them to compete with rivals from various corners of the world with diverse expertise and resources (Haeruddin et al., 2023). Technological advancements play a key role in shaping the dynamics of business competition. The information and communication technology revolution has changed how companies interact with customers, manage supply chains, and formulate marketing strategies (Lee & Yoo, 2019; Nyadzayo & Khajehzadeh, 2016; Hofacker et al., 2020). Companies that

* Corresponding author

E-mail address wrajagukguk.uki@gmail.com (W. Rajagukguk)

ISSN 2291-6830 (Online) - ISSN 2291-6822 (Print)

© 2024 by the authors; licensee Growing Science, Canada.

doi: 10.5267/j.uscm.2023.12.012

can enhance operational efficiency and provide innovative products or services will gain a competitive advantage. In facing increasingly tight competition, marketing strategy becomes a key factor in achieving corporate goals, especially in building and maintaining customer loyalty (Azeem et al., 2021). Companies must utilize effective marketing methods to attract customer attention, differentiate themselves from other competitors, and build long-term relationships with consumers (Distanont & Khongmalai, 2020; Udriyah et al., 2019).

Customer loyalty plays a crucial role in business success, forming a strong foundation for long-term growth and stability. A loyal customer is not only a steady source of income but also a key to reducing the cost of acquiring new customers (Khan et al., 2022). In increasingly competitive environments, retaining existing customers is often more economical and yields stable revenue. Furthermore, customer loyalty will impact the sustainability of the company because loyal customers engage in repeat purchases, expand the range of products or services, and contribute to positive promotion through recommendations to friends and family. Another advantage lies in the positive reputation impact brought by loyal customers (Dam & Dam, 2021; Sun et al., 2020). Positive reviews and recommendations from customers can be valuable assets, attracting new customers and building a strong brand image. Customer loyalty also creates resilience to competition because customers who feel emotionally connected to a brand tend to remain loyal even amid a wide range of market choices (Chang, 2020). Developing strong relationships with customers also allows companies to respond more effectively to customer feedback, facilitating customer-driven innovation that can enhance the relevance of products or services. By prioritizing and maintaining customer loyalty, companies can preserve competitive advantages, enhance business resilience, and create a solid foundation for sustainable growth (Kataria & Saini, 2020; Manzoor et al., 2020).

Customer loyalty is the result of a combination of several key factors integrated well by a company. One of the most dominant key factors is the quality of service, which plays a primary role in building a bond between the company and customers (Vuong et al., 2021; Alzoubi et al., 2022). When customers perceive that the service provided is of high quality, responsive, and meets their expectations, they feel valued and satisfied with the interaction. According to Supriyanto et al. (2021), service quality creates a positive experience that can enhance customer loyalty as customers feel emotionally connected to the company. This can lead to customer satisfaction reflected in the fulfillment of expectations regarding the provided products or services. Customers who are satisfied with their experience, whether related to products, the purchasing process, or services received, are more likely to become repeat customers (Kurdi et al., 2020; Fida et al., 2020). In addition to service quality and customer satisfaction, the company's supply chain value also plays a crucial role in building loyalty. Customers will appreciate the added value provided by the company through operational efficiency, product or service reliability, and availability. Companies that can manage their supply chain well, consistently provide products or services, and offer significant added value can enhance trust and strengthen customer attachment (Aburayya et al., 2020; Asnawi et al., 2020).

To remain relevant and competitive amid intense business competition, companies must pay special attention to service quality that can create customer satisfaction. In a dynamic and changing business environment, customer satisfaction is not just a goal but a key to building and maintaining a loyal customer base (Hallencrutz & Parmler, 2021). By providing high-quality services, companies can create a positive experience for customers, strengthen emotional bonds, and evoke preferences for the company (Pakurár et al., 2019). Therefore, a focus on service quality not only enhances customer satisfaction but also creates a strong foundation for building loyalty. Although some previous studies have investigated the influence of service quality and customer satisfaction on customer loyalty, the supply chain value factor has been less discussed. Hence, this study aims to fill that gap by analyzing the impact of service quality, customer satisfaction, and supply chain value on customer loyalty. Furthermore, this research makes an additional contribution by considering the role of Customer Relationship Management (CRM) as a mediator, helping explain how the relationship between service quality, customer satisfaction, and supply chain value influences customer loyalty.

2. Literature Review and Hypothesis Development

Providing superior service compared to competitors is a primary strategy for companies aiming to position themselves as market leaders and create strong customer loyalty. Superior service quality includes aspects such as responsiveness to customer needs, speed in problem resolution, ease of interaction, and delivering an overall positive customer experience (Asnawi et al., 2020; Nyadzayo & Khajehzadeh, 2016; Shen & Yahya, 2021). Companies that can exceed customer expectations by providing better services than their competitors can build emotional bonds and deep trust. Moreover, delivering high-quality services not only creates customer satisfaction but also forms a solid foundation for building long-term loyalty. Satisfied customers are more likely to return for future purchases and consistently choose that company (Ricardianto et al., 2023). Customers who trust and are loyal to a company will also recommend it to others, generating positive effects in promotion and brand image formation. By focusing on excellent service, companies can create sustainable competitive advantages, enhance customer retention, and ensure they remain the preferred choice in the eyes of consumers (Shah et al., 2020; Pakurár et al., 2019).

There is a close connection between service quality and Customer Relationship Management (CRM), where service quality can directly influence the effectiveness and success of CRM implementation. Aburayya et al. (2020) state that good service quality creates a strong foundation for building a positive relationship between the company and customers. According to Hallencrutz & Parmler (2021), service quality plays a crucial role in shaping customer loyalty with a significant positive

impact. Similar statements are also affirmed by Dam & Dam (2021), emphasizing that the higher the service quality provided by a company, the closer the emotional attachment of customers to that company. Optimal service quality creates a positive experience that can build a stronger relationship between the company and customers. Excellent service quality can be a primary trigger for customers to transact repeatedly with the company, driving the formation of sustainable loyalty. Supriyanto et al. (2021) also state that customer loyalty is considered an indicator of the strength of the relationship between customer attitudes and loyalty in conducting repeated business with a company. Good service quality not only creates customer satisfaction but also becomes a primary determinant in forming enduring relationships and producing loyal customers (Fida et al., 2020). Therefore, a company's focus on improving service quality can be an effective strategy in creating customer loyalty and strengthening the company's position.

H₁: *Service quality has a positive effect on Customer Relationship Management (CRM).*

H₂: *Service quality has a positive effect on customer loyalty.*

Customer satisfaction has become a primary focus in the marketing world as it is considered a key factor in business success. The understanding that customer satisfaction results from the comparison between actual performance and customer expectations forms the primary basis for meeting needs and enhancing the customer experience (Hofacker et al., 2020). With increasing competition across various industry sectors, companies tend to prioritize a customer satisfaction-focused marketing orientation to differentiate themselves from competitors (Hayati et al., 2020; Soliha et al., 2021). The creation of customer satisfaction brings several significant benefits, including establishing a harmonious relationship between the company and customers, where customer needs and expectations are effectively met. Customer satisfaction provides a strong foundation for repeat purchases and the creation of consumer loyalty (Khairawati, 2020; Almohaimmed, 2019). Satisfied customers tend to select products or services from a company that has provided a positive experience. Customer satisfaction can trigger positive word-of-mouth effects. Satisfied customers are likely to recommend to friends, family, or business associates, creating sustainable and convincing promotion for the company (Lee, 2019).

Manzoor et al. (2020) state that customer satisfaction has an influence on consistent consumer loyalty, consistent with the view that the higher the level of customer satisfaction, the higher the level of customer loyalty to the products or services provided by the company. Azeem et al. (2021) add a new dimension by stating that customer satisfaction can increase the purchasing intensity of the customer. In other words, satisfied customers not only remain loyal but can also increase the frequency and volume of purchases. Regarding the concept of customer loyalty, Abror et al. (2020) agree that satisfaction has a positive influence. However, Gopi & Samat (2020) highlight the importance of realizing that the increase in satisfaction does not always equate to an increase in loyalty in the same proportion. Thus, marketing strategies focused on customer satisfaction are not only an essential need but also a smart strategy in managing and maintaining strong business relationships. Improving customer satisfaction can play a crucial role in shaping sustainable loyalty, creating a strong foundation for repeat purchases, and supporting long-term business growth.

H₃: *Customer satisfaction has a positive effect on Customer Relationship Management (CRM).*

H₄: *Customer satisfaction has a positive effect on customer loyalty.*

Supply chain value refers to the concept where each stage in a supply chain contributes to the final value of the product or service provided to customers. The importance of supply chain value is to enhance competitiveness and overall business efficiency. Othman et al. (2020) state that supply chain value has a significant impact on customer loyalty through several mechanisms that focus on the overall customer experience. By efficiently managing the supply chain, companies can ensure consistent availability of products or services, provide customer satisfaction, and establish a foundation for strong relationships (Kataria & Saini, 2020). Speed and responsiveness in product delivery are key, where a well-managed supply chain can expedite delivery times, increase customer satisfaction, and shape a positive perception of the company (Lee & Yoo, 2019; Khan et al., 2022). Additionally, the consistent and high quality of products or services is also a positive impact of an optimal supply chain value, forming a strong basis for maintaining customer loyalty (Udriyah et al., 2019). Product or service innovation supported by an efficient supply chain can be an additional attraction, while effective management also creates a pleasant customer experience. This contributes to the creation of added value and differentiation that plays a role in shaping and maintaining customer loyalty, creating a favorable environment for business growth and sustainability (Haeruddin et al., 2023).

H₅: *Supply chain value has a positive influence on Customer Relationship Management (CRM).*

H₆: *Supply chain value has a positive effect on customer loyalty.*

Customer Relationship Management (CRM) is a strategic approach that focuses on managing interactions and relationships between a company and its customers. Through the effective implementation of CRM systems, companies can collect, analyze, and leverage customer data to understand preferences, needs, and consumer behavior (Ngelyaratan & Soediantono, 2022). With an in-depth understanding of customers, companies can formulate more targeted marketing strategies and tailor product or service offerings specifically to meet customer expectations. Sofi et al. (2020) emphasize that the role of CRM in shaping customer loyalty cannot be overlooked. By engaging customers more personally and providing customized

experiences, companies can build stronger relationships with customers. CRM enables companies to provide more responsive services and empowers sales teams to quickly respond to customer needs (Guerola-Navarro et al., 2021; Nyadzayo & Khajehzadeh, 2016; Nuseir & Refae, 2022). Additionally, through loyalty systems and incentive programs, companies can encourage repeat purchases, offer special discounts, or provide rewards to loyal customers. Thus, CRM is not just a data management tool but also a strategic key in building and maintaining customer loyalty, strengthening a company's position in the market, and improving customer retention (Alshurideh, 2022).

H7: *Customer Relationship Management (CRM) has a positive effect on customer loyalty.*

H8: *Customer Relationship Management (CRM) mediates the relationship between service quality and customer loyalty.*

H9: *Customer Relationship Management (CRM) mediates the relationship between customer satisfaction and customer loyalty.*

H10: *Customer Relationship Management (CRM) mediates the relationship between supply chain value and customer loyalty.*

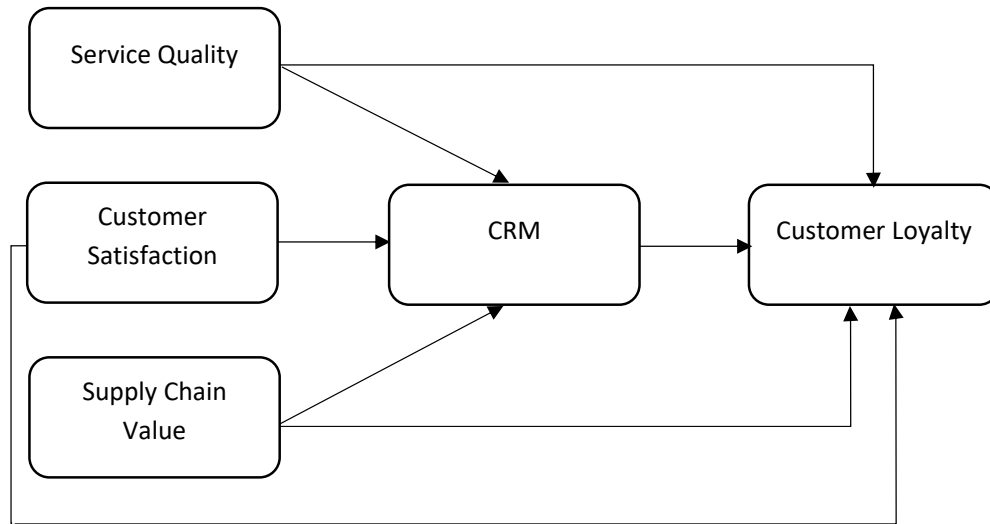


Fig. 1. Theoretical Framework

3. Research methods

The research method employed in this study is quantitative, and data collection was conducted through questionnaires. The questionnaire utilized a Likert scale with a range of 1 to 7 points, reflecting the respondents' agreement level from strongly disagree to strongly agree. In an effort to obtain a representative sample, a simple random sampling technique was applied in this research. The population of respondents focused on managers and employees working in automotive sector companies listed on the Indonesia Stock Exchange (IDX). A total of 400 questionnaires were distributed to respondents online. Out of the total questionnaires given to respondents, 261 were successfully collected, indicating a questionnaire return rate of 65.25%. However, in the initial screening stage, 14 questionnaires were found to be incomplete, rendering them ineligible for further analysis. Therefore, the final sample for this study consists of 247 questionnaires considered valid and reliable for analysis. The data collection process took place from June to August 2023. In analyzing the collected data, this study applied the Structural Equation Modeling (SEM) approach using the SmartPLS analysis tool. This approach was chosen for its ability to provide an in-depth understanding of the complexity of relationships among variables within the research framework. Thus, through this method, the study aims to offer profound insights into the influence of service quality, customer satisfaction, supply chain value, and CRM's role on customer loyalty in the automotive sector in Indonesia.

4. Research Result

In this study, the analysis was conducted using SmartPLS software to test the influence of independent variables (service quality, customer satisfaction, supply chain value) and the mediating variable (Customer Relationship Management (CRM)) on the dependent variable (customer loyalty). In the initial analysis stage, a construct reliability test was performed to ensure that the constructs used to measure latent variables have an adequate level of reliability. A total of 3 constructs were used to measure the service quality variable, 4 constructs for measuring customer satisfaction and supply chain value variables, 3 constructs for measuring the CRM variable, and 4 constructs for measuring the customer loyalty variable. The standard loading factor obtained from the testing must exceed 0.6 to ensure the reliability of constructs in measuring latent variables. The construct reliability test aims to assess the extent to which the constructs used can be relied upon in measuring the latent variables under investigation. A loading factor above 0.6 indicates that the construct has a strong relationship with the measured latent variable. These results are crucial to ensure that the measurement tools used in the study are valid and reliable.

The testing results can be seen in Fig. 2, and the details are presented in Table 1, providing a visual and detailed overview of the construct reliability testing, which serves as the initial step in validating the research framework used in this study.

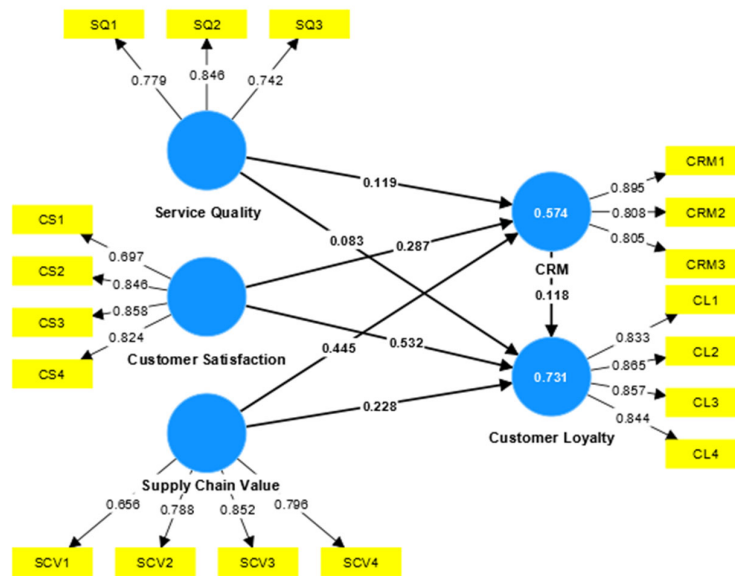


Fig. 2. Analysis Results

Table 1
Std. Loading Factor

Variable	Service Quality	Customer Satisfaction	Supply Chain Value	CRM	Customer Loyalty
SQ1	0.779				
SQ2	0.846				
SQ3	0.742				
CS1		0.697			
CS2		0.846			
CS3		0.858			
CS4		0.824			
SCV1			0.656		
SCV2			0.788		
SCV3			0.852		
SCV4			0.796		
CRM1				0.895	
CRM2				0.808	
CRM3				0.805	
CL1					0.833
CL2					0.865
CL3					0.857
CL4					0.844

Table 1 above presents the results of the standard loading factor test for each variable in the study. Service quality produced satisfactory standard loading factor results, with SQ1 (0.779), SQ2 (0.846), and SQ3 (0.742). These figures indicate that each indicator has a significant contribution to measuring the service quality variable. Customer satisfaction also shows positive results with high standard loading factors for CS1 (0.697), CS2 (0.846), CS3 (0.858), and CS4 (0.824). These values confirm that each indicator is reliable in measuring customer satisfaction. Furthermore, supply chain value is supported by strong standard loading factors on SCV1 (0.656), SCV2 (0.788), SCV3 (0.852), and SCV4 (0.796). These results indicate that each indicator has a good contribution to measuring the supply chain value variable. Customer Relationship Management (CRM) shows high standard loading factors on all indicators, namely CRM1 (0.895), CRM2 (0.808), and CRM3 (0.805). This confirms that each CRM indicator can be relied upon as a measurement tool for the mediation variable. The customer loyalty variable also shows high standard loading factors on CL1 (0.833), CL2 (0.865), CL3 (0.857), and CL4 (0.844). These figures indicate that customer loyalty indicators make a significant contribution to measuring the variable. Thus, the results of the standard loading factor test provide confidence that each indicator in the variable constructs has sufficient validity and reliability, strengthening the basis for structural analysis and interpretation of results within the research framework.

The next step in this study involves validity and reliability analysis to ensure that the constructs used are reliable and valid. The validity test aims to evaluate the extent to which a construct can be considered valid in measuring related latent variables. The results of the validity test depend on the value of Average Variance Extracted (AVE), which is considered adequate if its

value is higher than 0.6. In the reliability test, the focus is given to proving that the constructs used can be considered reliable in measuring latent variables. Reliability criteria are measured with the Cronbach's Alpha value, considered adequate if its value is higher than 0.7. A high Cronbach's Alpha value indicates that the indicators in a construct correlate well and are reliable in measuring the same variable. The results of the validity and reliability analysis are a critical step to ensure that the measurement tools used in this study have good measurement capabilities and can be relied upon to describe the relationships between the variables under investigation. By confirming the validity and reliability of constructs, this study strengthens its methodological foundation, providing higher confidence in the results of the structural analysis to be conducted in the next stage.

Table 2
Validity and Reliability Analysis Test

Variable	Cronbach's Alpha	Average Variance Extracted (AVE)
Service Quality	0.716	0.625
Customer Satisfaction	0.824	0.654
Supply Chain Value	0.785	0.603
CRM	0.786	0.701
Customer Loyalty	0.872	0.722

Table 2 reveals the results of the validity and reliability analysis for each variable in this study. The validity test is conducted by considering two main parameters, namely Cronbach's Alpha and Average Variance Extracted (AVE). The service quality variable obtains a Cronbach's Alpha value of 0.716 (> 0.7), reflecting adequate reliability, while the AVE value obtained is 0.625 (> 0.6), indicating good construct validity in measuring service quality. The validity test for the customer satisfaction variable shows positive results with a Cronbach's Alpha value of 0.824, indicating good reliability. The AVE value obtained is 0.654, meeting the threshold value criteria of 0.6, which means it is considered valid in measuring customer satisfaction. The supply chain value variable also shows good reliability with a Cronbach's Alpha value of 0.785. The AVE value obtained is 0.603, indicating that this variable is valid in measuring the supply chain value. Furthermore, the Customer Relationship Management (CRM) variable obtains a Cronbach's Alpha value of 0.786, indicating good reliability, and an AVE value of 0.701, indicating adequate construct validity. The customer loyalty variable shows excellent test results with a Cronbach's Alpha value of 0.872, reflecting high reliability. The AVE value of 0.722 confirms the construct validity in measuring customer loyalty.

In this research process, two forms of hypothesis testing are used to examine the relationships between the involved variables: direct hypothesis testing and indirect hypothesis testing (involving mediation factors). Direct hypothesis testing aims to evaluate the direct impact of independent variables on dependent variables without involving mediating variables. On the other hand, hypothesis testing using mediation factors aims to identify whether the relationship between independent variables and dependent variables can be influenced by the designated mediation variables. In hypothesis testing, significance is determined by the T-statistic and P-value generated. A T-statistic value above 1.96 or a P-value less than 0.05 indicates that the proposed hypothesis has a significant and acceptable effect. A T-statistic value of 1.96 is the critical threshold at a 95% confidence level, which can be used to determine statistical significance. The significance conclusion of hypothesis testing serves as the foundation for this research to formulate recommendations and practical implications that can be drawn from the statistical analysis results. Thus, through this approach, the research can contribute valuable insights into understanding the relationships between the variables under investigation.

Table 3
Hypothesis test

	Hypothesis	T statistics	P values	Information
H1	Service Quality \rightarrow CRM	2.039	0.027	Significant
H2	Service Quality \rightarrow Customer Loyalty	1.552	0.124	Not Significant
H3	Customer Satisfaction \rightarrow CRM	2.768	0.007	Significant
H4	Customer Satisfaction \rightarrow Customer Loyalty	7.631	0.000	Significant
H5	Supply Chain Value \rightarrow CRM	3.559	0.001	Significant
H6	Supply Chain Value \rightarrow Customer Loyalty	1.262	0.210	Not Significant
H7	CRM \rightarrow Customer Loyalty	1.951	0.044	Significant

The results of the hypothesis testing presented in Table 3 above provide an overview of the relationships between the tested variables. Service quality has proven to have a significant impact on Customer Relationship Management (CRM), as evidenced by the T-statistics of 2.039 (> 1.96) and P-values of 0.027 (< 0.05). This finding aligns with Aburayya et al. (2020), indicating that companies need to pay special attention to service quality to enhance customer relationship management. However, the relationship between service quality and customer loyalty is not found to be significant, with T-statistics of 1.552 and P-values of 0.124. This finding contradicts the results of Hallencreutz & Parmler (2021), where service quality does not directly influence the level of customer loyalty. Furthermore, customer satisfaction is proven to significantly influence CRM, with the T-statistics obtained being 2.768 and P-values being 0.007. Moreover, customer satisfaction also proves to have a significant impact on customer loyalty, with T-statistics of 7.631 and P-values of 0.000. These results support the findings of Gopi & Samat (2020) and Abror et al. (2020), emphasizing the importance of ensuring customer satisfaction to enhance

customer relationship management and create strong loyalty. Supply chain value also proves to have a significant impact on CRM, evidenced by T-statistics of 3.559 and P-values of 0.001, but not on customer loyalty, as the T-statistics obtained are 1.262 and P-values are 0.210. In line with the findings of Othman et al. (2020), this study's results indicate that values in the supply chain can contribute to improving customer relationship management but not always directly impact the level of customer loyalty. Furthermore, the direct role of CRM in customer loyalty is proven to be significant, with T-statistics of 1.951 and P-values of 0.044. This value indicates that companies with effective customer relationship management have higher levels of customer loyalty.

Table 4

Indirect Effect

Hypothesis	T statistics	P values	Information
H8 Service Quality → CRM → Customer Loyalty	2.705	0.013	Significant
H9 Customer Satisfaction → CRM → Customer Loyalty	5.239	0.000	Significant
H10 Supply Chain Value → CRM → Customer Loyalty	4.013	0.000	Significant

The results of the mediation test show significant findings related to the role of Customer Relationship Management (CRM) in connecting several independent variables with the level of customer loyalty (Table 4). The mediation test results show that CRM mediates the relationship between service quality and customer loyalty, obtaining T-statistics of 2.705 and P-values of 0.013. This finding confirms that the influence of service quality on customer loyalty can be explained through the mediating role of CRM. Therefore, companies focusing on improving service quality can leverage customer relationship management to strengthen customer loyalty. Furthermore, the mediation test results show that CRM also mediates the relationship between customer satisfaction and customer loyalty, obtaining high T-statistics of 5.239 and P-values of 0.000. This finding provides evidence that the critical role of CRM in shaping customer loyalty is further reinforced through the level of customer satisfaction. Thus, companies need to effectively manage customer satisfaction to stimulate strong customer relationship management and, ultimately, high levels of loyalty. CRM also plays a role as a mediator between supply chain value and customer loyalty, where with T-statistics of 4.013 and P-values of 0.000, this finding confirms that increasing values in the supply chain can enhance customer loyalty through customer relationship management. Therefore, companies can optimize the values in their supply chain to support the development of stronger customer relationships and, ultimately, enhance customer loyalty.

5. Conclusion

The results of this research conclude that service quality, customer satisfaction, and supply chain value play crucial roles in shaping and influencing Customer Relationship Management (CRM) as well as customer loyalty towards the company. The research findings indicate that service quality has a significant impact on Customer Relationship Management (CRM), highlighting the importance of companies paying special attention to improving service quality to strengthen customer relationships. However, there is no direct significant influence between service quality and customer loyalty. This emphasizes the need for mediating variables such as CRM to explain this relationship. Customer satisfaction is proven to have a significant impact on Customer Relationship Management (CRM) and also has a strong direct influence on customer loyalty. This underscores that improving customer satisfaction can be an effective strategy to strengthen customer relationship management and, in turn, enhance customer loyalty. Supply chain value proves to have a significant impact on Customer Relationship Management (CRM), but it does not have a direct significant influence on customer loyalty. Nevertheless, supply chain value can increase customer loyalty through the mediation of customer relationship management. The direct role of customer relationship management in customer loyalty is proven to be significant, indicating that companies with effective customer relationship management can achieve higher levels of customer loyalty.

The implications of the research findings have significant impacts on companies across various sectors in Indonesia, especially in the context of increasing business competition. Companies in Indonesia need to pay greater attention to improving the quality of services offered to customers. High service quality is not only key to building customer satisfaction but also plays a crucial role in shaping positive customer perceptions of the company. Moreover, companies also need to understand the importance of customer satisfaction as a primary element in the company's marketing strategy. Improving customer satisfaction will not only create a more harmonious relationship between the company and customers but also provide a strong foundation for repeat purchases and the creation of consumer loyalty. Furthermore, efficiency in the supply chain value is also an essential aspect that companies need to consider. Optimizing the supply chain can improve operational performance, reduce costs, and ultimately contribute to the improvement of service quality. Thus, companies can achieve higher competitive differentiation in the market. The implementation of effective Customer Relationship Management (CRM) systems is considered a key success factor in maximizing the positive influence of these variables on customer loyalty. A good CRM system can help companies understand individual customer needs, provide personalized services, and build meaningful interactions. Therefore, investing in CRM technology and training employees to manage customer data effectively can be a highly valuable long-term investment.

References

- Abror, A., Patrisia, D., Engriani, Y., Evanita, S., Yasri, Y., & Dastgir, S. (2020). Service quality, religiosity, customer satisfaction, customer engagement and Islamic bank's customer loyalty. *Journal of Islamic Marketing*, 11(6), 1691-1705.
- Aburayya, A., Marzouqi, A., Alawadhi, D., Abdouli, F., & Taryam, M. (2020). An empirical investigation of the effect of employees' customer orientation on customer loyalty through the mediating role of customer satisfaction and service quality. *Management Science Letters*, 10(10), 2147-2158.
- Almohaimmed, B. (2019). Pillars of customer retention: An empirical study on the influence of customer satisfaction, customer loyalty, customer profitability on customer retention. *Serbian Journal of Management*, 14(2), 421-435.
- Alshurideh, M. (2022). Does electronic customer relationship management (E-CRM) affect service quality at private hospitals in Jordan?. *Uncertain Supply Chain Management*, 10(2), 325-332.
- Alzoubi, H., Alshurideh, M., Kurdi, B., Akour, I., & Aziz, R. (2022). Does BLE technology contribute towards improving marketing strategies, customers' satisfaction and loyalty? The role of open innovation. *International Journal of Data and Network Science*, 6(2), 449-460.
- Asnawi, N., Sukoco, B. M., & Fanani, M. A. (2020). The role of service quality within Indonesian customers satisfaction and loyalty and its impact on Islamic banks. *Journal of Islamic Marketing*, 11(1), 192-212.
- Azeem, M., Ahmed, M., Haider, S., & Sajjad, M. (2021). Expanding competitive advantage through organizational culture, knowledge sharing and organizational innovation. *Technology in Society*, 66, 101635.
- Chang, W. J. (2020). Experiential marketing, brand image and brand loyalty: a case study of Starbucks. *British Food Journal*, 123(1), 209-223.
- Dam, S. M., & Dam, T. C. (2021). Relationships between service quality, brand image, customer satisfaction, and customer loyalty. *The Journal of Asian Finance, Economics and Business*, 8(3), 585-593.
- Distanont, A., & Khongmalai, O. (2020). The role of innovation in creating a competitive advantage. *Kasetsart Journal of Social Sciences*, 41(1), 15-21.
- Fida, B. A., Ahmed, U., Al-Balushi, Y., & Singh, D. (2020). Impact of service quality on customer loyalty and customer satisfaction in Islamic banks in the Sultanate of Oman. *Sage Open*, 10(2), 2158244020919517.
- Gopi, B., & Samat, N. (2020). The influence of food trucks' service quality on customer satisfaction and its impact toward customer loyalty. *British Food Journal*, 122(10), 3213-3226.
- Guerola-Navarro, V., Gil-Gomez, H., Oltra-Badenes, R., & Sendra-García, J. (2021). Customer relationship management and its impact on innovation: A literature review. *Journal of Business Research*, 129, 83-87.
- Haeruddin, M. I. W., Musa, M. I., & Kurniawan, A. W. (2023). Marketing strategy analysis in a global market. *Journal Management & Economics Review (JUMPER)*, 1(1), 17-24.
- Hallencreutz, J., & Parmler, J. (2021). Important drivers for customer satisfaction—from product focus to image and service quality. *Total quality management & business excellence*, 32(5-6), 501-510.
- Hayati, S., Suroso, A., Suliyanto, S., & Kaukab, M. (2020). Customer satisfaction as a mediation between micro banking image, customer relationship and customer loyalty. *Management Science Letters*, 10(11), 2561-2570.
- Hofacker, C., Golgeci, I., Pillai, K. G., & Gligor, D. M. (2020). Digital marketing and business-to-business relationships: a close look at the interface and a roadmap for the future. *European Journal of Marketing*, 54(6), 1161-1179.
- Kataria, S., & Saini, V. (2020). The mediating impact of customer satisfaction in relation of brand equity and brand loyalty: An empirical synthesis and re-examination. *South Asian Journal of Business Studies*, 9(1), 62-87.
- Kataria, S., & Saini, V. (2020). The mediating impact of customer satisfaction in relation of brand equity and brand loyalty: An empirical synthesis and re-examination. *South Asian Journal of Business Studies*, 9(1), 62-87.
- Khairawati, S. (2020). Effect of customer loyalty program on customer satisfaction and its impact on customer loyalty. *International Journal of Research in Business and Social Science (2147-4478)*, 9(1), 15-23.
- Khan, R. U., Salamzadeh, Y., Iqbal, Q., & Yang, S. (2022). The impact of customer relationship management and company reputation on customer loyalty: The mediating role of customer satisfaction. *Journal of Relationship Marketing*, 21(1), 1-26.
- Kurdi, B., Alshurideh, M., & Alnaser, A. (2020). The impact of employee satisfaction on customer satisfaction: Theoretical and empirical underpinning. *Management Science Letters*, 10(15), 3561-3570.
- Lee, C. Y. (2019). Does corporate social responsibility influence customer loyalty in the Taiwan insurance sector? The role of corporate image and customer satisfaction. *Journal of Promotion Management*, 25(1), 43-64.
- Lee, K., & Yoo, J. (2019). How does open innovation lead competitive advantage? A dynamic capability view perspective. *PLoS one*, 14(11), e0223405.
- Manzoor, U., Baig, S. A., Hashim, M., & Sami, A. (2020). Impact of social media marketing on consumer's purchase intentions: the mediating role of customer trust. *International Journal of Entrepreneurial Research*, 3(2), 41-48.
- Ngelyaratan, D., & Soediantono, D. (2022). Customer relationship management (CRM) and recommendation for implementation in the defense industry: a literature review. *Journal of Industrial Engineering & Management Research*, 3(3), 17-34.
- Nuseir, M., & Refae, G. E. (2022). The effect of digital marketing capabilities on business performance enhancement: Mediating the role of customer relationship management (CRM). *International Journal of Data and Network Science*, 6(2), 295-304.

- Nyadzayo, M. W., & Khajehzadeh, S. (2016). The antecedents of customer loyalty: A moderated mediation model of customer relationship management quality and brand image. *Journal of retailing and consumer services*, 30, 262-270.
- Othman, B. A., Harun, A., De Almeida, N. M., & Sadq, Z. M. (2020). The effects on customer satisfaction and customer loyalty by integrating marketing communication and after sale service into the traditional marketing mix model of Umrah travel services in Malaysia. *Journal of islamic marketing*, 12(2), 363-388.
- Pakurár, M., Haddad, H., Nagy, J., Popp, J., & Oláh, J. (2019). The service quality dimensions that affect customer satisfaction in the Jordanian banking sector. *Sustainability*, 11(4), 1113.
- Ricardianto, P., Yanto, T., Wardhono, D., Fachrial, P., Sari, M., Suryobuwono, A., ... & Endri, E. (2023). The impact of service quality, ticket price policy and passenger trust on airport train passenger loyalty. *Uncertain Supply Chain Management*, 11(1), 307-318.
- Shah, F. T., Syed, Z., Imam, A., & Raza, A. (2020). The impact of airline service quality on passengers' behavioral intentions using passenger satisfaction as a mediator. *Journal of Air Transport Management*, 85, 101815.
- Shen, C., & Yahya, Y. (2021). The impact of service quality and price on passengers' loyalty towards low-cost airlines: The Southeast Asia perspective. *Journal of Air Transport Management*, 91, 101966.
- Sofi, M. R., Bashir, I., Parry, M. A., & Dar, A. (2020). The effect of customer relationship management (CRM) dimensions on hotel customer's satisfaction in Kashmir. *International Journal of Tourism Cities*, 6(3), 601-620.
- Soliha, E., Aquinia, A., Hayuningtias, K. A., & Ramadhan, K. R. (2021). The influence of experiential marketing and location on customer loyalty. *The Journal of Asian Finance, Economics and Business*, 8(3), 1327-1338.
- Sun, H., Rabbani, M. R., Ahmad, N., Sial, M. S., Cheng, G., Zia-Ud-Din, M., & Fu, Q. (2020). CSR, co-creation and green consumer loyalty: Are green banking initiatives important? A moderated mediation approach from an emerging economy. *Sustainability*, 12(24), 10688.
- Supriyanto, A., Wiyono, B. B., & Burhanuddin, B. (2021). Effects of service quality and customer satisfaction on loyalty of bank customers. *Cogent Business & Management*, 8(1), 1937847.
- Udriyah, U., Tham, J., & Azam, S. J. M. S. L. (2019). The effects of market orientation and innovation on competitive advantage and business performance of textile SMEs. *Management Science Letters*, 9(9), 1419-1428.
- Vuong, B., Tung, D., Tushar, H., Quan, T., & Giao, H. (2021). Determinates of factors influencing job satisfaction and organizational loyalty. *Management Science Letters*, 11(1), 203-212.



© 2024 by the authors; licensee Growing Science, Canada. This is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY) license (<http://creativecommons.org/licenses/by/4.0/>).