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# THE EFFECT OF SERVICE QUALITY, CUSTOMER SATISFACTION, AND SUPPLY CHAIN VALUE ON CUSTOMER LOYALTY THROUGH THE MEDIATING ROLE OF CUSTOMER RELATIONSHIP MANAGEMENT AND TRUST IN THE MOTOR INSURANCE INDUSTRY IN INDONESIA

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## ABSTRACT

*This study aims to analyze the effect of service quality, customer satisfaction, and supply chain value on customer loyalty by considering the sequential mediating role of Customer Relationship Management (CRM) and trust in the motor insurance industry in Indonesia. Data were collected through a survey of 251 motor insurance policyholders and analyzed using the Partial Least Squares-Structural Equation Modeling (PLS-SEM) approach. The results indicate that service quality does not have a significant effect on CRM ( $t = 0.705$ ;  $p = 0.481$ ) or customer loyalty ( $t = 1.346$ ;  $p = 0.178$ ), either directly or through the sequential mediation of CRM and trust ( $t = 0.703$ ;  $p = 0.482$ ). In contrast, customer satisfaction has a significant effect on CRM ( $t = 3.256$ ;  $p = 0.001$ ) and customer loyalty ( $t = 3.722$ ;  $p < 0.001$ ) and also demonstrates a significant indirect effect on loyalty through CRM and trust ( $t = 2.506$ ;  $p = 0.012$ ). Supply chain value is also found to have a significant effect on CRM ( $t = 6.702$ ;  $p < 0.001$ ), customer loyalty ( $t = 2.428$ ;  $p = 0.015$ ), and loyalty through the sequential mediation of CRM-trust ( $t = 4.394$ ;  $p < 0.001$ ). The findings demonstrate that CRM exerts a substantial effect on trust ( $t = 17.171$ ;  $p < 0.001$ ), which subsequently drives customer loyalty ( $t = 5.353$ ;  $p < 0.001$ ), while also mediating the relationship between CRM and loyalty ( $t = 5.145$ ;  $p < 0.001$ ). Overall, the findings show that customer loyalty in the motor insurance industry is not formed directly through service quality, but rather through a layered relational mechanism emphasizing customer satisfaction, service process value, customer relationship management, and trust formation. These findings reinforce the relevance of the Commitment-Trust Theory and provide important implications for customer retention strategies in risk-based insurance industries.*

**KEYWORDS:** Service Quality, Customer Satisfaction, Supply Chain Value, Customer Relationship Management, Trust, Customer Loyalty.

## 1. INTRODUCTION

The general insurance industry in Indonesia has experienced increasingly challenging dynamics in recent years. Based on reports from the Indonesian General Insurance Association (AAUI), industry growth in the first quarter of 2025 was relatively low, particularly in the motor insurance line. This condition reflects intense competition, both in terms of pricing and service innovation. One of the main issues faced by insurance companies is the low level of policyholder loyalty, which is not solely influenced by premium differences, but also by perceptions of service quality and overall customer experience.

Alongside the acceleration of digital transformation, many insurance companies have adopted hybrid service models that combine digital platforms with direct interaction through agents, call centers, or branch offices. Although this model improves operational efficiency, many companies still face difficulties in building long-term loyalty. This indicates that technical service improvements do not necessarily translate into strengthened customer relationships and trust.

In the services marketing literature, service quality, customer satisfaction, and supply chain value have long been identified as important factors in shaping customer loyalty. However, various studies indicate that the influence of these factors on loyalty is not always direct. Rajagukguk et al. (2024), for example, found that service quality and supply chain value affect customer loyalty through Customer Relationship Management (CRM), while their direct effects on loyalty are not always significant [1]. This finding emphasizes that customer loyalty in service industries is strongly influenced by the effectiveness of customer relationship management.

Nevertheless, most previous studies still view loyalty formation as either a direct relationship or a relationship with a single layer of mediation. The role of trust as an emotional dimension in customer relationships is often treated separately, without considering its sequential relationship with Customer Relationship Management (CRM). In fact, in the insurance industry, which is based on promises and risk management, trust is a fundamental element in maintaining long-term relationships between companies and customers.

Based on these gaps, this study develops a sequential mediation model positioning CRM as a functional relational mechanism and trust as an emotional bridge that ultimately drives loyalty. By integrating service quality, customer satisfaction,

and supply chain value within a layered relational framework, this study extends existing loyalty models beyond single-mediator structures and provides empirical evidence from a risk-intensive service context. This approach offers a more comprehensive explanation of how loyalty is constructed in the motor insurance industry.

Service quality reflects customers' perceptions of a company's ability to deliver reliable, responsive, and empathetic services, as conceptualized in the SERVQUAL framework, which emphasizes the dimensions of reliability, responsiveness, and empathy [2], [3]. In the context of motor insurance, service quality is reflected in the clarity and consistency of the claims process, the effectiveness of communication between the company and policyholders, and the ease of service access through digital channels as well as face-to-face interactions. These characteristics indicate that insurance services are high-process-intensity and high-trust services, in which the quality of interaction is an integral part of the customer experience (Caruana, 2002; Ndubisi & Wah, 2005).

The services marketing and insurance literature indicates that service quality plays an important role in enhancing the effectiveness of Customer Relationship Management (CRM), as reliable and consistent service quality shapes interaction quality, communication, and customer relationship management, which constitute the core capabilities of CRM [4], [5], [6]. Several empirical findings in the financial services and insurance industries also confirm that service quality positively affects CRM effectiveness, particularly in high-trust service contexts such as insurance [1], [7]. In addition, several studies indicate that service quality has the potential to directly influence customer loyalty through the formation of behavioral intentions, such as repurchase intention and positive word-of-mouth [3], [8], [9], [10], [11]. Based on this theoretical foundation and empirical evidence, this study proposes that service quality positively affects CRM (H1) and customer loyalty (H2). In addition to the core relational marketing literature, several empirical studies in service and banking contexts have further reinforced the linkage between service quality, satisfaction, and customer loyalty [12], [13], [14]. These studies provide additional empirical grounding for the formulation of the proposed hypotheses in this research.

H1: Service Quality (SQ) has a positive effect on Customer Relationship Management (CRM).

H2: Service Quality (SQ) has a positive effect on Customer Loyalty (CL).

Customer satisfaction is formed through an evaluation process between initial expectations and actual customer experience, as explained in expectation-disconfirmation theory [15], [16]. In long-term relationship-intensive services such as insurance, customer satisfaction serves as an important mechanism for maintaining sustainable relationships between companies and customers [17]. Relationship marketing literature emphasizes that customer satisfaction enhances interaction quality, relational commitment, and the effectiveness of customer relationship management, which are key elements of CRM [4], [5]. Empirical findings also indicate that customer satisfaction positively affects CRM in service and insurance contexts [1], [18].

Furthermore, customer satisfaction is consistently associated with customer loyalty through increased repurchase intention and long-term commitment [8], [17], [19]. Studies in the service and financial sectors confirm a significant direct effect between customer satisfaction and customer loyalty (Asnawi et al., 2020; Almohaimmed, 2019). Based on these arguments, this study proposes that customer satisfaction positively affects CRM (H3) and customer loyalty (H4).

H3: Customer Satisfaction (CS) has a positive effect on Customer Relationship Management (CRM).

H4: Customer Satisfaction (CS) has a positive effect on Customer Loyalty (CL).

Supply chain value in insurance services reflects the effectiveness of coordination and integration between insurance companies and key service partners, such as repair workshops, spare part providers, surveyors, and other claims support services, in supporting service delivery to customers. From a service supply chain perspective, supply chain value is not only measured in terms of cost efficiency, but also in terms of process reliability, responsiveness, and consistency of service quality perceived by customers [20], [21], [22]. A well-managed service chain enables claims processes to run more reliably and on time, thereby improving the overall customer service experience.

Several studies indicate that supply chain value plays an important role in strengthening CRM effectiveness, as effective supply chain coordination supports service promise fulfillment, interaction consistency, and long-term customer relationship management [1], [19]. In addition, some studies suggest that supply chain value may directly influence customer loyalty through improved service reliability and customer experience quality, although

empirical findings show that the strength of this effect varies and is often mediated by other relational variables (Kataria & Saini, 2020; Haeruddin, 2023). Based on these findings, this study proposes that supply chain value positively affects CRM (H5) and customer loyalty (H6).

H5: Supply Chain Value (SCV) has a positive effect on Customer Relationship Management (CRM).

H6: Supply Chain Value (SCV) has a positive effect on Customer Loyalty (CL).

In relationship-intensive services such as insurance, the influence of service factors on customer loyalty is not always direct, but is mediated by relational and emotional mechanisms. Customer Relationship Management (CRM) functions as a functional mechanism that manages interactions, communication, and service consistency between companies and customers, while trust represents an emotional mechanism reflecting customers' confidence in the reliability and integrity of the company [4], [23]. Based on the Commitment-Trust Theory, trust is positioned as the core of sustainable relational relationships because it enables customers to accept uncertainty, reduce risk perceptions, and maintain long-term relationships with service providers.

CRM is viewed as a structural and operational prerequisite that facilitates trust formation through consistent, transparent, and responsive service experiences [24], [25]. Several studies indicate that service quality, customer satisfaction, and supply chain value can indirectly influence customer loyalty through strengthened CRM, which subsequently builds trust sequentially [1], [24]. From a service supply chain perspective, effective service chain coordination enhances service reliability and consistency in fulfilling company promises, which in turn strengthens CRM and builds customer trust [25].

Moreover, the direct relationship between CRM and trust has been widely confirmed in the literature, where effective CRM enhances transparency, communication consistency, and service reliability, thereby strengthening customer trust in the company [26]. Trust is subsequently recognized as a primary determinant of customer loyalty in service contexts, as trust drives commitment, tolerance for service failure, and intention to maintain long-term relationships [11], [27]. Based on this theoretical and empirical foundation, this study proposes that service quality (H7), customer satisfaction (H8), and supply chain value (H9) positively affect customer loyalty through the sequential mediation of CRM and trust; CRM positively affects trust (H10); trust

positively affects customer loyalty (H11); and trust mediates the relationship between CRM and customer loyalty (H12). The conceptualization of customer loyalty in this study is also aligned with classical marketing perspectives emphasizing long-term customer value and relationship continuity (Kotler & Keller, 2016; Dawes, 2008).

H7: Service Quality (SQ) has a positive effect on Customer Loyalty (CL) through the sequential mediation of Customer Relationship Management (CRM) and Trust (T).

H8: Customer Satisfaction (CS) has a positive effect on Customer Loyalty (CL) through the sequential mediation of Customer Relationship Management (CRM) and Trust (T).

H9: Supply Chain Value (SCV) has a positive

effect on Customer Loyalty (CL) through the sequential mediation of Customer Relationship Management (CRM) and Trust (T).

H10: Customer Relationship Management (CRM) has a positive effect on Trust (T).

H11: Trust (T) has a positive effect on Customer Loyalty (CL).

H12: Trust (T) mediates the relationship between Customer Relationship Management (CRM) and Customer Loyalty (CL).

Based on the literature review and hypothesis development, the relationships among variables in this study are formulated in a conceptual model describing the direct and indirect effects among service quality, customer satisfaction, supply chain value, CRM, trust, and customer loyalty.

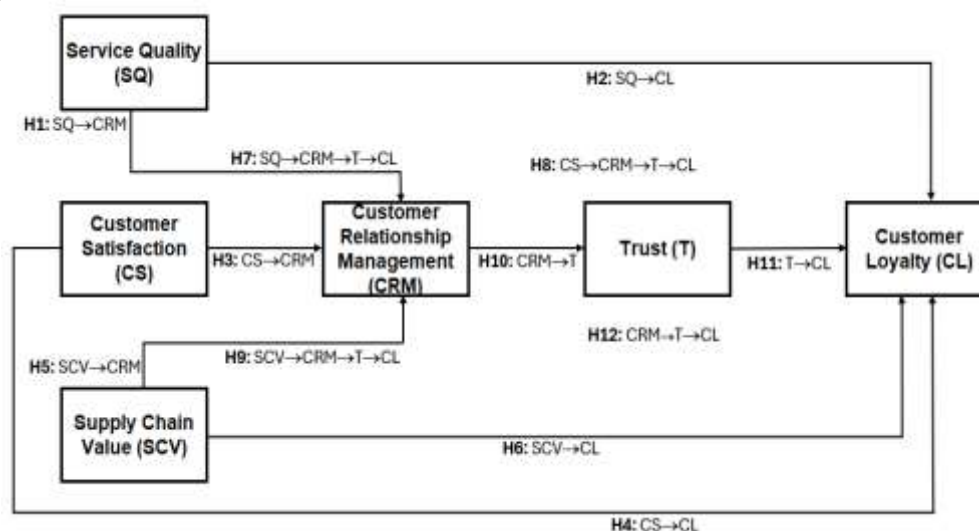


Figure 1. Conceptual Model.

## 2. RESEARCH METHOD

This study employs a quantitative survey design using a structured questionnaire based on a five-point Likert scale (1-5), distributed online to motor vehicle insurance policyholders in Indonesia. The instrument was developed by adapting validated scales and prior empirical studies in service and supply chain contexts to ensure content validity and measurement consistency [28], [29]. Of the 585 questionnaires distributed, 333 responses were received, and after screening and validation, 251 responses were retained for analysis. This sample size is considered adequate for applying Partial Least Squares-Structural Equation Modeling (PLS-SEM) to a model comprising reflective constructs and a sequential mediation mechanism.

Data were analyzed using the PLS-SEM approach with SmartPLS software. This method is appropriate for complex mediation models and does not require

multivariate normality assumptions [30]. The analysis began with evaluation of the measurement model, focusing on convergent and discriminant validity. Convergent validity was assessed through outer loadings and Average Variance Extracted (AVE) to ensure that indicators sufficiently represent their latent constructs, while discriminant validity was examined using the Heterotrait-Monotrait Ratio (HTMT) to confirm adequate construct distinctiveness. These procedures follow established PLS-SEM assessment guidelines.

After the measurement model met the required validity criteria, the analysis proceeded to the structural model to test the significance of direct and indirect relationships among latent variables. Bootstrapping was applied to estimate path coefficients and sequential mediation effects through Customer Relationship Management (CRM) and Trust, as this technique does not rely on distributional assumptions. The results of both

measurement and structural model evaluations are presented in the following section.

### 3. RESULTS

In this study, data analysis was conducted using SmartPLS software to examine the effects of the independent variables—Service Quality, Customer Satisfaction, and Supply Chain Value—and the mediating variables Customer Relationship Management (CRM) and Trust on the dependent variable Customer Loyalty. Service Quality was measured using seven indicators, while Customer Satisfaction and Supply Chain Value were measured using five and eight indicators, respectively. CRM and Trust were each represented by six indicators, while Customer Loyalty was measured using five indicators.

Evaluation of the measurement model was

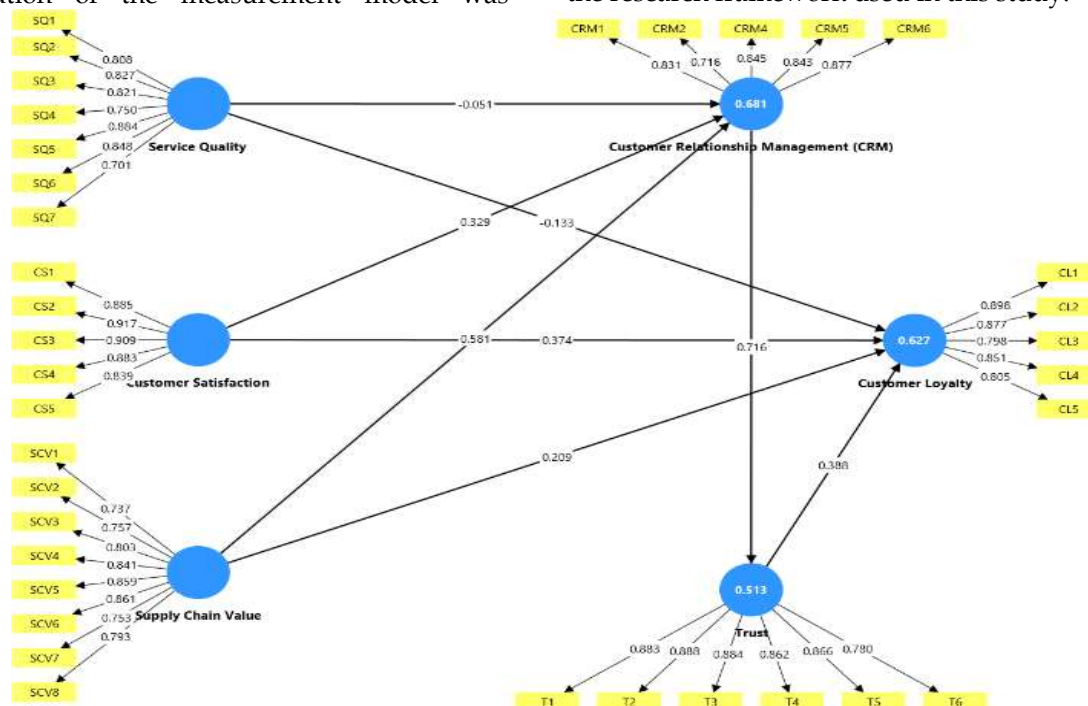


Figure 2. Analysis Results.

Table 1. Outer Loadings.

Variable	Service Quality	Customer Satisfaction	Supply Chain Value	Customer Relationship Management (CRM)	Trust	Customer Loyalty
SQ1	0.808					
SQ2	0.827					
SQ3	0.821					
SQ4	0.75					
SQ5	0.884					
SQ6	0.848					
SQ7	0.701					
CS1		0.885				
CS2		0.917				
CS3		0.909				
CS4		0.883				
CS5		0.839				
SCV1			0.737			
SCV2						
SCV3						
SCV4						
SCV5						
SCV6						
SCV7						
SCV8						
CRM1				0.831		
CRM2				0.716		
CRM4				0.845		
CRM5				0.845		
CRM6				0.877		
T1					0.883	
T2					0.888	
T3					0.884	
T4					0.862	
T5					0.866	
T6					0.780	
CL1						0.896
CL2						0.877
CL3						0.798
CL4						0.851
CL5						0.805

conducted through testing indicator reliability using outer loading values. Referring to Hair et al. (2021), indicators with outer loading values  $\geq 0.70$  are considered to adequately reflect their latent constructs. Outer loading values meeting this criterion indicate a strong relationship between the indicator and the latent construct it represents, thereby confirming the appropriateness of the indicator in representing the measured construct. Therefore, the results of this indicator reliability evaluation constitute an important foundation before proceeding to structural model testing.

The results of construct reliability testing are presented visually in Figure 2, while a summary of the testing values is detailed in Table 1, providing a comprehensive overview of the adequacy of the measurement model as an initial stage in validating the research framework used in this study.

SCV2			0.757			
SCV3			0.803			
SCV4			0.841			
SCV5			0.859			
SCV6			0.861			
SCV7			0.753			
SCV8			0.793			
CRM1				0.831		
CRM2				0.716		
CRM4				0.845		
CRM5				0.843		
CRM6				0.877		
T1					0.883	
T2					0.888	
T3					0.884	
T4					0.862	
T5					0.866	
T6					0.78	
CL1						0.898
CL2						0.877
CL3						0.798
CL4						0.851
CL5						0.805

In the initial stage of measurement model evaluation, one indicator of the Customer Relationship Management (CRM) construct, namely CRM3, showed an outer loading value of 0.671, which is below the ideal threshold of 0.70. Therefore, CRM3 was eliminated from the measurement model to improve the quality and accuracy of the CRM construct measurement. After re-estimation, all indicators of the Service Quality construct showed outer loading values above the minimum criterion of 0.70, namely SQ1 (0.808), SQ2 (0.827), SQ3 (0.821), SQ4 (0.750), SQ5 (0.884), SQ6 (0.848), and SQ7 (0.701). These results indicate that all these indicators adequately reflect the Service Quality construct.

Furthermore, the indicators of the Customer Satisfaction construct also showed consistent outer loading values well above the required threshold, namely CS1 (0.885), CS2 (0.917), CS3 (0.909), CS4 (0.883), and CS5 (0.839). These findings indicate that each indicator is appropriate for representing the latent Customer Satisfaction construct. The eight indicators of the Supply Chain Value construct all had outer loading values above the minimum threshold of 0.70, namely SCV1 (0.737), SCV2 (0.757), SCV3 (0.803), SCV4 (0.841), SCV5 (0.859), SCV6 (0.861), SCV7 (0.753), and SCV8 (0.793). These results indicate that the Supply Chain Value indicators adequately reflect the measured latent construct.

For the Customer Relationship Management (CRM) construct, the five remaining indicators after elimination—CRM1 (0.831), CRM2 (0.716), CRM4 (0.845), CRM5 (0.843), and CRM6 (0.877)—all showed outer loading values above the established criterion. These findings confirm that each CRM indicator is

appropriate for representing the CRM latent construct as a mediating variable. Furthermore, all indicators of the Trust construct showed outer loading values above the minimum threshold, namely T1 (0.883), T2 (0.888), T3 (0.884), T4 (0.862), T5 (0.866), and T6 (0.780). These findings indicate that these indicators are reliable in measuring the Trust latent construct. Finally, the dependent variable Customer Loyalty had five indicators with outer loading values all above 0.70, namely CL1 (0.898), CL2 (0.877), CL3 (0.798), CL4 (0.851), and CL5 (0.805). These results indicate that each indicator adequately represents the Customer Loyalty latent construct.

Overall, the outer loading evaluation results indicate that the indicators used in this study have met the indicator reliability criteria and are appropriate for use in the measurement model. Therefore, with indicator reliability fulfilled across all constructs, the analysis can proceed to structural model testing to evaluate the relationships among latent constructs.

After indicator reliability was confirmed through outer loading evaluation, the next step was to test construct reliability and construct validity to ensure internal consistency of the indicators and the ability of latent constructs to explain the variance of their indicators. Construct reliability was evaluated using Cronbach's Alpha, where values  $\geq 0.70$  indicate adequate internal consistency [31]. The results presented in Table 2 show that all constructs in the model have Cronbach's Alpha values above this threshold, confirming good internal consistency for each construct.

**Table 2. Construct Reliability and Convergent Validity.**

Variable	Cronbach's alpha	Average variance extracted (AVE)	Result
Service Quality	0.910	0.652	Reliable and valid (convergent validity)
Customer Satisfaction	0.932	0.787	Reliable and valid (convergent validity)
Supply Chain Value	0.920	0.643	Reliable and valid (convergent validity)
Customer Relationship Management (CRM)	0.881	0.680	Reliable and valid (convergent validity)

Trust	0.930	0.742	Reliable and valid (convergent validity)
Customer Loyalty	0.901	0.717	Reliable and valid (convergent validity)

Subsequently, convergent validity at the construct level was evaluated using the Average Variance Extracted (AVE) to assess the extent to which each latent construct explains the variance of its indicators. Referring to Hair et al. (2021), an AVE value of  $\geq 0.50$  indicates that the latent construct explains more than half of the variance of its measurement indicators. The results presented in Table 2 show that all constructs in the model have AVE values above the recommended threshold. Therefore, it can be concluded that each construct adequately satisfies the criteria for convergent validity.

**Table 3. Discriminant Validity.**

Variable	Customer Loyalty	Customer Relationship Management (CRM)	Customer Satisfaction	Service Quality	Supply Chain Value	Trust
Customer Loyalty (CL)						
Customer Relationship Management (CRM)	0.793					
Customer Satisfaction (CS)	0.805	0.820				
Service Quality (SQ)	0.660	0.724	0.829			
Supply Chain Value (SCV)	0.746	0.876	0.857	0.851		
Trust (T)	0.795	0.782	0.841	0.806	0.784	

The next step involved evaluating discriminant validity using the Heterotrait-Monotrait Ratio (HTMT) approach to ensure that each latent construct in the model is empirically distinct from the others. According to Henseler et al. (2015), HTMT values below 0.85 indicate a more conservative level of discriminant validity, whereas Hair et al. (2017) suggest that values up to 0.90 may still be acceptable in more lenient contexts [32]. The results presented in Table 3 show that all HTMT values among the constructs are below the recommended threshold, although several construct pairs display values relatively close to the conservative limit. These findings confirm that the latent constructs are sufficiently distinct and do not exhibit significant conceptual overlap. Therefore, discriminant validity in the research model can be considered established.

Overall, the evaluation of the measurement model indicates that the indicators and constructs in this study meet the required reliability and validity criteria. All indicators demonstrate adequate reliability based on their outer loading values, while construct reliability assessed through Cronbach's Alpha confirms good internal consistency for each

construct. Convergent validity is also established, as reflected by the Average Variance Extracted (AVE) values exceeding the recommended threshold. In addition, discriminant validity is confirmed using the Heterotrait-Monotrait Ratio (HTMT) approach, which indicates no significant conceptual overlap among the constructs. Therefore, the measurement model is considered suitable for proceeding to structural model testing to evaluate the proposed relationships among latent constructs.

After establishing the adequacy of the measurement model, the analysis proceeded to test the significance of relationships among latent constructs in the structural model using the bootstrapping procedure to assess both direct and indirect effects. In line with the recommendations of the PLS-SEM approach, the significance of path coefficients was determined based on t-statistic values greater than 1.96 at the 5% significance level or p-values below 0.05 (Hair et al., 2017, 2021). Furthermore, indirect effects were examined through bootstrap estimation, as this method does not require the assumption of normal data distribution and is appropriate for testing mediation mechanisms

within the research model (Zhao, Lynch, & Chen, 2010). The hypothesis testing results presented in Tables 4 and 5 provide an overview of the relationships among the variables examined.

**Table 4. Hypothesis Testing.**

	Hypothesis	T statistics	P values	Result
H1	Service Quality -> CRM	0.705	0.481	Not Supported
H2	Service Quality -> Customer Loyalty	1.346	0.178	Not Supported
H3	Customer Satisfaction -> CRM	3.256	0.001	Supported
H4	Customer Satisfaction -> Customer Loyalty	3.722	< 0.001	Supported
H5	Supply Chain Value -> CRM	6.702	< 0.001	Supported
H6	Supply Chain Value -> Customer Loyalty	2.428	0.015	Supported
H10	CRM -> Trust	17.171	< 0.001	Supported
H11	Trust -> Customer Loyalty	5.353	< 0.001	Supported

The results for H1 indicate that Service Quality does not have a significant effect on Customer Relationship Management, with a t-statistic of 0.705 ( $< 1.96$ ) and a p-value of 0.481 ( $> 0.05$ ), which do not meet the recommended significance criteria. This finding indicates that perceived service quality does not directly enhance CRM effectiveness. It differs from the findings of Rajagukguk et al. (2024), who reported a positive effect of service quality on CRM. The discrepancy implies that, in the motor insurance context, service quality may be perceived as a basic expected standard and is not sufficiently strong to directly shape Customer Relationship Management practices without consistent satisfaction experiences [1].

Similarly, the testing of H2 indicates that Service Quality does not have a statistically significant effect on Customer Loyalty ( $t = 1.346 < 1.96$ ;  $p = 0.178 > 0.05$ ). This suggests that service quality does not directly drive customer loyalty, contrasting with the findings of Supriyanto et al. (2021) and Fida et al. (2020), who identified a direct relationship between service quality and loyalty. In the motor insurance industry, customer loyalty appears to be influenced less by service quality alone and more by long-term relational processes such as satisfaction, trust, and sustained relationship management.

The results further show that Customer Satisfaction has a positive and significant effect on Customer Relationship Management (H3), with a t-statistic of 3.256 ( $> 1.96$ ) and a p-value of 0.001 ( $< 0.05$ ). This finding is consistent with Gopi and Samat (2020) and Rajagukguk et al. (2024), who emphasize

that customer satisfaction serves as a primary foundation for establishing and maintaining customer relationships. In addition, Customer Satisfaction significantly influences Customer Loyalty (H4) ( $t = 3.722 > 1.96$ ;  $p < 0.001$ ), supporting the findings of Asnawi et al. (2020), Almohaimmeed (2019) and Othman, B. A., et al. (2020), which suggest that satisfied customers are more likely to demonstrate loyalty [18], [19], [33], [34].

Furthermore, Supply Chain Value is found to have a positive and significant effect on Customer Relationship Management (H5), with a t-statistic of 6.702 ( $> 1.96$ ) and a  $p < 0.001$ . This finding is consistent with Othman, A. K., et al. (2020) and Rajagukguk et al. (2024), who emphasize the role of service process efficiency, reliability, and coordination in strengthening CRM. Supply Chain Value also significantly affects Customer Loyalty (H6) ( $t = 2.428 > 1.96$ ;  $p = 0.015 < 0.05$ ). However, variations in prior findings suggest that the strength of this relationship may depend on industry characteristics and service models.

Moreover, the results indicate that Customer Relationship Management has a very strong and significant effect on Trust (H10), with a t-statistic of 17.171 ( $> 1.96$ ) and a  $p < 0.001$ . This finding supports Khan et al. (2022) and Manzoor et al. (2020), who emphasize the role of CRM as a key mechanism in building trust through consistent and transparent interactions. Trust, in turn, significantly influences Customer Loyalty (H11) ( $t = 5.353 > 1.96$ ;  $p < 0.001$ ), in line with Lee (2019), who identifies trust as a central determinant of long-term loyalty, particularly in industries characterized by risk and uncertainty such as insurance [26], [35].

Overall, the hypothesis testing results indicate that customer loyalty in the motor insurance industry is not formed directly through service quality but rather through a more complex relational mechanism. The non-significant effects of Service Quality on CRM and Customer Loyalty suggest that service quality functions primarily as a baseline expectation rather than a decisive relational driver. In contrast, Customer Satisfaction and Supply Chain Value play significant roles in strengthening CRM and promoting customer loyalty, underscoring the importance of holistic service experience evaluation and service process efficiency in the insurance context. The most prominent finding is the strong effect of Customer Relationship Management on Trust, which subsequently drives Customer Loyalty, indicating that trust represents the cumulative outcome of effective relationship management. Therefore, customer loyalty appears to be primarily

shaped through indirect pathways emphasizing satisfaction, service process value, CRM effectiveness, and trust, rather than through service quality as a purely operational factor.

Table 5. Indirect Effects.

Hypothesis	T statistics	P values	Result
H7 Service Quality -> CRM -> Trust -> Customer Loyalty	0.703	0.482	Not Supported
H8 Customer Satisfaction -> CRM -> Trust -> Customer Loyalty	2.506	0.012	Supported
H9 Supply Chain Value -> CRM -> Trust -> Customer Loyalty	4.394	< 0.001	Supported
H12 CRM -> Trust -> Customer Loyalty	5.145	< 0.001	Supported

The results indicate that the indirect effect of Service Quality on Customer Loyalty through the sequential mediation of Customer Relationship Management and Trust is not statistically significant ( $t = 0.703 < 1.96$ ;  $p = 0.482 > 0.05$ ). Accordingly, H7 is not supported. This finding suggests that service quality does not drive customer loyalty through the relational pathway involving CRM and trust. This result differs from Rajagukguk et al. (2024) and Khan et al. (2022), who reported that service quality contributes to loyalty through relational mechanisms. In the motor insurance context, service quality appears to function primarily as an operational prerequisite and is not sufficiently strong to initiate a sequential relational process leading to loyalty.

In contrast, Customer Satisfaction demonstrates a positive and significant indirect effect on Customer Loyalty through the sequential mediation of CRM and Trust ( $t = 2.506 > 1.96$ ;  $p = 0.012 < 0.05$ ). Accordingly, H8 is supported. This finding is consistent with Gopi and Samat (2020) and Lee (2019), who emphasize customer satisfaction as a primary trigger of relational processes that foster trust and loyalty. The result indicates that satisfaction not only has a direct effect but also serves as an initial foundation for building sustained relationships and trust.

Similarly, Supply Chain Value demonstrates a positive and significant indirect effect on Customer Loyalty through the sequential mediation of CRM and Trust ( $t = 4.394 > 1.96$ ;  $p < 0.001$ ), supporting H9. This result supports Othman, A. K., et al. (2020) and Manzoor et al. (2020), emphasizing that efficient and reliable service processes enhance relational strength and trust formation. In the insurance context, service process efficiency signals competence and reliability,

which subsequently enhances customer trust and loyalty.

The results further show that Trust significantly mediates the relationship between Customer Relationship Management and Customer Loyalty ( $t = 5.145 > 1.96$ ;  $p < 0.001$ ), thus supporting H12. This finding is consistent with Commitment-Trust Theory (Morgan & Hunt, 1994), which positions trust as a central mechanism in sustaining long-term relationships. It also supports Alzoubi et al. (2022), who emphasize that CRM effectiveness leads to loyalty when it consistently builds trust.

Overall, the indirect effect analysis indicates that customer loyalty in the motor insurance industry is primarily formed through relational pathways involving Customer Satisfaction, Supply Chain Value, CRM, and Trust. The non-significant mediation path of Service Quality confirms that service quality alone is insufficient to activate relational mechanisms leading to loyalty. Instead, satisfaction and service process value initiate a sequential relational chain through CRM and trust, ultimately driving customer loyalty. These findings confirm trust as the central mediator linking relationship management and long-term loyalty.

4. CONCLUSION

The findings confirm that customer loyalty in the Indonesian motor insurance industry is not directly driven by service quality but is constructed through a progressive relational mechanism. Service quality does not exert a significant direct or mediated effect on loyalty, indicating that it functions primarily as a baseline expectation rather than a differentiating factor in loyalty formation. In contrast, customer satisfaction and supply chain value significantly strengthen Customer Relationship Management (CRM), which subsequently builds trust as the primary determinant of long-term loyalty. Trust emerges as the central relational link connecting CRM effectiveness and customer loyalty, reinforcing the relational rather than transactional nature of loyalty in insurance services.

Theoretically, this study extends existing loyalty models by testing a sequential mediation mechanism integrating CRM and trust simultaneously. The findings challenge the linear assumption in service marketing literature that service quality automatically leads to loyalty and reinforce the relevance of Commitment-Trust Theory in risk-based service contexts. Accordingly, this study provides a more comprehensive explanation of how loyalty is formed through the integration of customer satisfaction, service process value, consistent

relationship management, and trust development.

This study employs a cross-sectional design and therefore does not capture the dynamic evolution of loyalty over time. Future research may adopt longitudinal approaches to examine the stability and progression of relationships among the constructs. Furthermore, the focus on the Indonesian motor insurance industry may limit generalizability to

other service sectors or national contexts. Cross-industry or cross-country comparative studies may provide broader insights into relational mechanisms shaping loyalty. Future research may also incorporate additional variables such as perceived risk, switching costs, or digital service adoption to enrich loyalty models within the context of insurance industry transformation.

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