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Analysis of The Influence of Service Quality, Price and Reputation on Customer Loyalty with Customer Satisfaction as a Mediating Variable in a Freight Forwarding Company

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Abstract: This study examines the effects of service quality, price, and reputation on customer satisfaction and customer loyalty in the freight forwarding industry. The research is motivated by the need to identify key determinants of customer loyalty in an increasingly competitive logistics market. A descriptive quantitative approach was applied, with data collected from customers who have used freight forwarding services. The sample consisted of 250 respondents, determined using the Hair et al. formula (5 × number of indicators), and data were gathered through structured questionnaires. Structural Equation Modeling (SEM) was employed to analyze both direct and indirect relationships among variables. The results indicate that service quality, price, and reputation positively influence customer satisfaction, while customer satisfaction has a significant positive effect on customer loyalty. Furthermore, service quality and reputation indirectly affect loyalty through satisfaction, whereas the indirect effect of price through satisfaction is not statistically significant. These findings suggest that freight forwarding companies should focus on improving service quality and strengthening corporate reputation to enhance customer satisfaction and achieve sustainable customer loyalty.

Keyword: Service Quality, Price, Reputation, Customer Satisfaction, Customer Loyalty, Freight Forwarding, SEM.

INTRODUCTION

Freight forwarding companies play a strategic role in supporting international trade by acting as intermediaries between cargo owners and service users in managing the shipment and receipt of goods through various modes of transportation (Sakti & Ikhsan, 2022);(Rustina et al., 2022). Under national regulations, freight forwarders are legal entities responsible for the entire logistics process, ranging from documentation handling to the distribution of goods (Ministry of Transportation Regulation No. 49 of 2017; Ministry of Transportation Regulation No. 59 of 2021).

Along with post-pandemic economic growth, Indonesia's transportation and warehousing sector has shown an increasing contribution to Gross Domestic Product, supported by the upward trend in national export and import activities. This condition has led to a growing demand for professional and reliable freight forwarding services.

The growth of the logistics sector has also been accompanied by an increase in the number of freight forwarding companies, resulting in intensified industry competition. Customers now have a wide range of service provider alternatives, making customer loyalty increasingly difficult to maintain, particularly in the business-to-business (B2B) context, which requires long-term relationships and revenue stability for companies (Andilas et al., 2018); (Sabatini et al., 2016).

Under highly competitive conditions, customer behavior tends to become more rational and transactional, with service usage decisions influenced by comparisons of service quality, pricing, and corporate reputation. Inconsistent service quality, competitive price pressures, and corporate reputation are key factors affecting customer satisfaction and loyalty (Ummah, 2019); (Eviyani et al., 2023).

Previous studies indicate that service quality, price, and reputation significantly influence customer satisfaction, which in turn has a substantial impact on customer (Yanuar & Siregar, 2023). Therefore, this study aims to analyze the effects of service quality, price, and reputation on customer loyalty, with customer satisfaction serving as an intervening variable in freight forwarding companies.

METHOD

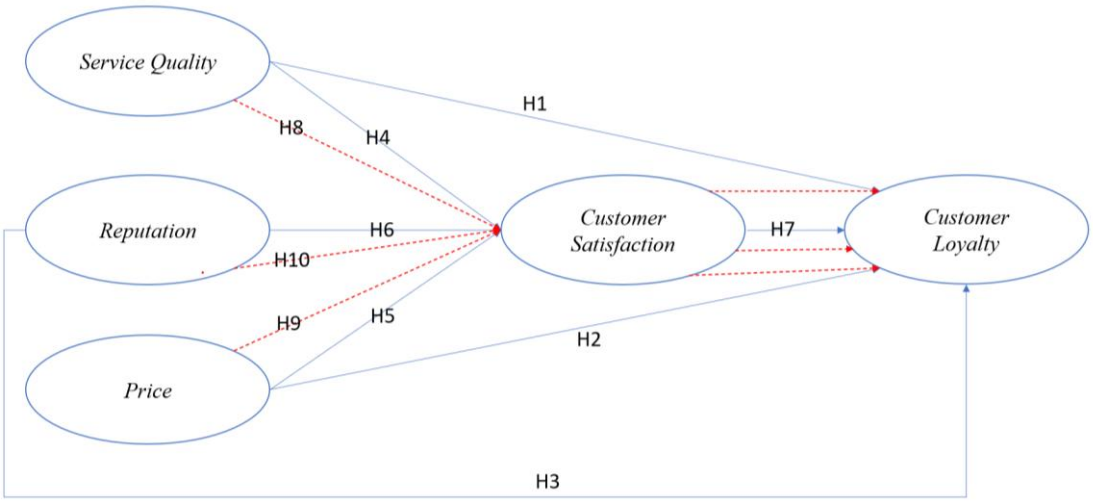
This study is a quantitative research employing a survey method through the distribution of This study applies a descriptive research design with a quantitative approach, aiming to empirically examine the relationships among service quality, reputation, price, customer satisfaction, and customer loyalty in the freight forwarding industry. The quantitative approach relies on statistical data to objectively and measurably address the research objectives by transforming respondents' perceptions into numerical values that can be statistically analyzed. This approach is appropriate as it enables hypothesis testing and the generalization of findings across different contexts, independent of time and location.

The population in this study refers to the entire group of subjects possessing specific characteristics relevant to the research focus. According to Amin et al. (2023), a population represents a generalized area consisting of objects or subjects with defined qualities and characteristics determined by the researcher. Accordingly, the population of this study comprises customers who are currently using or have previously used freight forwarding services, both at the individual and corporate levels.

Sampling was conducted to ensure the accuracy and relevance of data sources for the analysis process. In line with Suliyanto (2018), a sample is a subset of the population whose characteristics are examined to represent the population. This study employs a Non-Probability Sampling technique, using purposive criteria to select respondents who meet the research objectives and possess adequate experience with freight forwarding services. The sample size was determined based on the recommendation of Hair et al. (2019), which suggests a minimum of five times the total number of indicators. Based on this rule, a total of 250 respondents were deemed sufficient and appropriate for further analysis.

The respondents were drawn from various freight forwarding user communities and logistics-related associations, including members of the Indonesian Exporters Association (GPEI), customers of PT DMS, members of the Indonesian Logistics Service Providers Association (PPLI), the Indonesian Women in Transport & Logistics community, and logistics-related exporter and importer groups. From a total target population of 1,735 companies and individuals, 250 valid and complete responses were successfully collected and analyzed, resulting in a response rate of approximately 14.4%. This response rate is considered adequate

for quantitative research using Structural Equation Modeling–Partial Least Squares (SEM-PLS), particularly given the specific characteristics of respondents and the non-probability sampling approach.

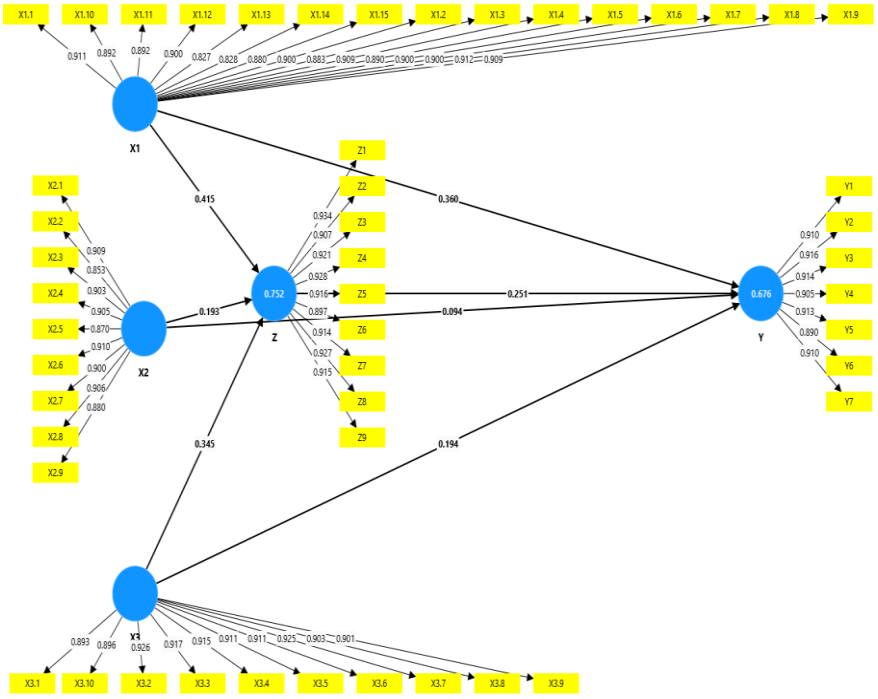


Source: Research Results

Figure 2. Research Model

RESULTS AND DISCUSSION

The assessment of convergent validity constitutes a fundamental stage in both exploratory and confirmatory factor analysis within multivariate statistical frameworks. This evaluation aims to determine the extent to which each indicator or construct accurately represents the theoretical concept being measured. Essentially, it examines the consistency of observed variables in capturing a common latent dimension. A widely accepted benchmark in this assessment is that an indicator is considered valid when its factor loading exceeds 0.70, signifying a strong association between the indicator and the underlying construct. The results of the PLS model estimation conducted to evaluate these validity measures are presented below:



Source: Research Results

Figure 3. Outer Model

Based on the findings of the validity analysis, the loading factor values illustrating the relationship between each variable and its corresponding indicators are presented as follows:

Table 2. Outer Loading

Variable	Indicator	Outer Loading	Indication
Service Quality	X1.1	0.911	VALID
	X1.2	0.900	
	X1.3	0.883	
	X1.4	0.909	
	X1.5	0.890	
	X1.6	0.900	
	X1.7	0.900	
	X1.8	0.912	
	X1.9	0.909	
	X1.10	0.892	
	X1.11	0.892	
	X1.12	0.900	
	X1.13	0.827	
	X1.14	0.828	
	X1.15	0.880	
Price	X2.1	0.909	VALID
	X2.2	0.853	
	X2.3	0.903	
	X2.4	0.905	
	X2.5	0.870	
	X2.6	0.910	
	X2.7	0.900	
	X2.8	0.906	
	X2.9	0.880	
Reputation	X3.1	0.893	VALID
	X3.2	0.926	
	X3.3	0.917	
	X3.4	0.915	
	X3.5	0.911	
	X3.6	0.911	
	X3.7	0.925	
	X3.8	0.903	
	X3.9	0.901	
	X3.10	0.896	
Customer Satisfaction	Z1	0.934	VALID
	Z2	0.907	
	Z3	0.921	
	Z4	0.928	
	Z5	0.916	
	Z6	0.897	
	Z7	0.914	

Variable	Indicator	Outer Loading	Indication
	Z8	0.927	
	Z9	0.915	
Customer Loyalty	**Y1**	0.910	VALID
	Y2	0.916	
	Y3	0.914	
	Y4	0.905	
	Y5	0.913	
	Y6	0.890	
	Y7	0.910	

Source: Research data

The table above illustrates the factor loading results for each indicator across the examined constructs, indicating varying levels of contribution among the variables. As all factor loading values exceed the recommended threshold of 0.70, each indicator satisfies the criteria for validity. Beyond factor loadings, convergent validity is further evaluated using the Average Variance Extracted (AVE) as a complementary indicator. AVE represents the extent to which a construct explains the variance of its indicators relative to the variance arising from measurement error. A construct is considered to demonstrate adequate convergent validity when its AVE value surpasses 0.50. The AVE results for each variable are presented below:

Table 3. AVE (Average Variance Extracted)

Research Variable	Average variance extracted (AVE)	Indication
X1 (Service Quality)	0.791	VALID
X2 (Price)	0.797	VALID
X3 (Reputation)	0.827	VALID
Y (Customer Loyalty)	0.825	VALID
Z (Customer Satisfaction)	0.842	VALID

Source: Research data

Ghozali & Latan, (2015) state that the Average Variance Extracted (AVE) is utilized to assess the convergent validity of constructs measured using reflective indicators. An AVE value of 0.50 or above signifies that a construct explains more than half of the variance in its observed indicators.

In addition, construct reliability is examined through Cronbach's Alpha and Composite Reliability (CR). A construct is regarded as having satisfactory internal consistency when both Cronbach's Alpha and Composite Reliability values exceed the threshold of 0.70, indicating that the indicators reliably and consistently represent the same latent concept.

Table 4. Cronbach Alpha and Composite Reliability

	Cronbach's alpha	Composite reliability (rho_c)	Indication
X1 (Service Quality)	0.981	0.983	Reliable
X2 (Price)	0.968	0.973	
X3 (Reputation)	0.977	0.98	
Y (Customer Loyalty)	0.965	0.971	
Z (Customer Satisfaction)	0.977	0.98	

Source: Research data

The findings indicate that all constructs exhibit Cronbach's Alpha values exceeding the acceptable thresholds (≥0.6 for exploratory research and ≥0.7 for confirmatory research), along with Composite Reliability values greater than 0.70. These results confirm that the research

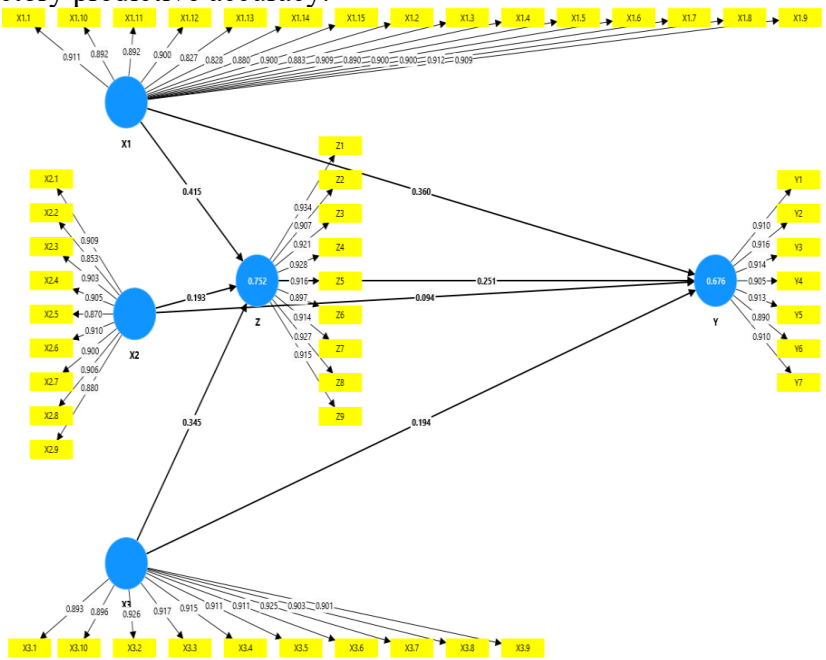
instruments possess strong internal consistency and reliability, making them appropriate for use. Consequently, the data obtained can be regarded as consistent and dependable for subsequent analytical procedures.

Table 5. The Coefficient of Determination (R^2)

	R-square	R-square adjusted
Y (Customer Loyalty)	0.676	0.671
Z (Customer Satisfaction)	0.752	0.750

Source: Research data

Customer Loyalty model yields an R-square value of 0.676, or 67.6%, which falls into the strong category. The R-square value for the Customer Satisfaction variable is 0.752, or 75.2%, which is also classified as strong, while the Adjusted R-square value for the Customer Satisfaction variable is 0.750, or 75.0%, likewise indicating a strong category. Therefore, it can be concluded that the proposed model demonstrates good performance, or in other words, exhibits satisfactory predictive accuracy.



Source: Research Results

Figure 4. Bootstraping Model

This stage focuses on hypothesis testing to evaluate the significance of the relationships among variables in the proposed research model, including the independent variables Service Quality (X1), Reputation (X3), and Price (X2), the mediating variable Customer Satisfaction (Z), and the dependent variable Customer Loyalty (Y). The analysis was performed using the bootstrapping procedure in Partial Least Squares–Structural Equation Modeling (PLS-SEM) with the assistance of SmartPLS software.

Hypothesis testing was conducted by examining the path coefficients, T-statistics, and P-values generated from the bootstrapping results. A hypothesis is considered supported when the P-value is less than 0.05, indicating a statistically significant relationship. Conversely, a hypothesis is not supported when these criteria are not met.

Table 6. Bootstrapping Result

Hypothesis	Path	Original sample (O)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values

H1	The Effect of Service Quality on Customer Loyalty	0.36	0.07	5.147	0
H2	The Effect of Price on Customer Loyalty	0.094	0.053	1.755	0.079
H3	The Effect of Reputation on Customer Loyalty	0.194	0.075	2.577	0.010
H4	The Effect of Service Quality on Customer Satisfaction	0.415	0.06	6.862	0
H5	The Effect of Price on Customer Satisfaction	0.193	0.058	3.345	0.001
H6	The Effect of Reputation on Customer Satisfaction	0.345	0.062	5.554	0
H7	The Effect of Customer Satisfaction on Customer Loyalty	0.251	0.087	2.898	0.004
H8	The Effect of Service Quality on Customer Loyalty through Customer Satisfaction	0.104	0.041	2.56	0.01
H9	The Effect of Price on Customer Loyalty through Customer Satisfaction	0.048	0.027	1.798	0.072
H10	The Effect of Reputation on Customer Loyalty through Customer Satisfaction	0.087	0.034	2.576	0.01

Source: Research data

1. Hypothesis 1

Based on the hypothesis testing results, the P-value is 0.000, which is lower than the significance level of α = 0.05; therefore, Hypothesis H1 is accepted. This result indicates that service quality has a positive and significant effect on customer loyalty among freight forwarding service users. Statistically, at a 95% confidence level, it can be concluded that higher service quality leads to higher customer loyalty.

This finding is supported by Narohito et al., (2025) who demonstrated that service quality has a direct and significant influence on customer loyalty in the service sector, particularly in transportation and logistics industries. Their study highlights that consistently perceived service quality fosters long-term loyal relationships between service providers and customers.

2. Hypothesis 2

The results of hypothesis testing for H2 show a P-value of 0.079, which is greater than the significance level of α = 0.05; therefore, this hypothesis is rejected. This indicates that price does not have a positive and significant effect on customer loyalty in the freight forwarding industry. Statistically, this suggests that although price may influence customers' initial choice of service provider, it is not sufficient to establish sustainable customer loyalty.

Price plays a role in initial purchasing decisions; however, it does not significantly determine loyalty in logistics services. Excessively low prices may raise concerns regarding service quality, whereas slightly higher prices are acceptable when accompanied by superior, timely, and reliable services (Sholikhah & Hadita, 2023; Wirapraja et al., 2021).

3. Hypothesis 3

The hypothesis testing results show a P-value of 0.01, which is less than 0.05; thus, Hypothesis H3 is accepted. This finding indicates that corporate reputation has a positive and significant effect on customer loyalty at a 95% confidence level. Octavia, (2022) focusing on the logistics sector in developing countries, found that companies with a positive reputation tend to gain higher customer trust, leading to greater customer security and satisfaction. This trust serves as an important mediating mechanism in enhancing customer loyalty.

4. Hypothesis 4

The testing of Hypothesis H4 yields a P-value of 0.000, which is lower than the significance level of $\alpha = 0.05$. Therefore, Hypothesis H4 is accepted, indicating a positive and significant effect of perceived service quality on customer satisfaction at a 95% confidence level. This finding implies that higher customer perceptions of service quality provided by freight forwarding companies result in higher levels of customer satisfaction.

Priambudi et al., (2024) similarly found that service quality has a significant positive effect on customer satisfaction in freight forwarding companies operating in metropolitan areas. Customers who perceive logistics service providers as reliable, responsive, and professional tend to report higher satisfaction levels.

5. Hypothesis 5

Based on statistical testing, the P-value obtained is 0.001, which is lower than the significance level of $\alpha = 0.05$. Accordingly, Hypothesis H5 is accepted, indicating a positive and significant effect of price on customer satisfaction in the freight forwarding context.

Primadi et al., (2023) state that in service industries, including delivery and logistics services, price serves as an easily observable indicator of quality. When customers perceive that the price paid is proportional to the benefits and services received (value for money), customer satisfaction increases significantly.

6. Hypothesis 6

The statistical test results show a P-value of 0.000, which is lower than 0.05; therefore, Hypothesis H6 is accepted. This indicates that, at a 95% confidence level, corporate reputation has a positive and significant effect on customer satisfaction in freight forwarding services. In other words, the better the reputation of the freight forwarding company, the higher the level of customer satisfaction.

This finding is supported by Kamaluddin et al., (2023) who argue that corporate reputation in logistics services strongly influences customers' perceptions of service quality and ultimately affects their satisfaction. Reputation functions as an indirect assurance of service quality.

7. Hypothesis 7

The hypothesis testing results indicate a P-value of 0.004, which is lower than the significance level of 0.05. Thus, Hypothesis H7 is accepted, meaning that customer satisfaction has a positive and significant effect on customer loyalty in the freight forwarding context. This finding confirms that satisfied customers tend to exhibit higher levels of loyalty toward their service providers.

This result is consistent with Narohito et al., (2025) who found that customer satisfaction significantly influences customer loyalty in Indonesia's logistics and transportation sector. Satisfied customers are more likely to engage in repeat purchases and provide positive recommendations.

8. Hypothesis 8

The P-value of 0.01 is lower than 0.05; therefore, Hypothesis H8 is accepted. Statistically, at a 95% confidence level, service quality has a positive and significant indirect effect on customer loyalty through customer satisfaction. This finding confirms that service quality influences customer loyalty indirectly by enhancing customer satisfaction. In this context, service quality includes aspects such as on-time delivery, clarity of information, prompt complaint handling, and professional and courteous staff behavior. Hermanto et al., (2025) similarly found that consistently reliable and responsive services improve customer satisfaction and ultimately strengthen long-term customer loyalty.

9. Hypothesis 9

The P-value of 0.072 is greater than 0.05; therefore, Hypothesis H9 is rejected. This indicates that, statistically at a 95% confidence level, price does not have a positive and significant indirect effect on customer loyalty through customer satisfaction. Although price is an important component of purchasing decisions, in the freight forwarding context, it is not the primary determinant of satisfaction that leads to customer loyalty.

This finding aligns with Bagaskara et al., (2020) who explain that price has a relatively weak influence on customer loyalty if it is not accompanied by high service quality. Perceived value (value for money) is more important than nominal price; when customers feel that the price paid does not match the quality received, satisfaction and loyalty are unlikely to develop.

10. Hypothesis 10

The test results show a P-value of 0.01, which is lower than the 5% significance level; therefore, Hypothesis H10 is accepted. Statistically, at a 95% confidence level, corporate reputation has a positive and significant effect on customer loyalty through customer satisfaction. In freight forwarding services, reputation reflects delivery reliability, cargo security, information transparency, and the company's commitment to resolving logistics issues. When corporate reputation is consistently demonstrated over time, customers feel more confident in placing repeat orders, thereby fostering sustainable loyalty.

This finding is supported by Primadi et al., (2023) who found that corporate reputation positively influences customer satisfaction and subsequently enhances customer loyalty, with reputation serving as a reinforcement of trust in service quality.

CONCLUSION

This study provides empirical evidence on the determinants of customer loyalty in the freight forwarding industry by examining the roles of service quality, price, and corporate reputation, with customer satisfaction acting as an intervening variable. The findings confirm that service quality and corporate reputation are the most influential factors in directly enhancing customer loyalty, highlighting the strategic importance of delivering reliable, responsive, and professional logistics services. Customers who consistently experience high-quality service and perceive a strong corporate reputation are more likely to maintain long-term relationships with freight forwarding companies.

The results further demonstrate that customer satisfaction plays a crucial mediating role in the relationship between service quality and loyalty, as well as between corporate reputation and loyalty. High service quality and a positive reputation significantly improve customer satisfaction, which subsequently strengthens customer loyalty. In contrast, price does not directly influence customer loyalty nor indirectly affect loyalty through customer satisfaction. Although price remains an important consideration in customers' initial decision-making processes, it is insufficient to foster sustainable loyalty in the freight forwarding context without being supported by superior service performance and trustworthy corporate reputation.

Overall, this study underscores that customer loyalty in freight forwarding services is primarily driven by value-based factors rather than price competition alone. Therefore, freight forwarding companies are encouraged to improve their service value excellence (value-based

strategy) such as reliability in delivery, the ability to build emotional relationships with customers and reputation management to increase customer satisfaction and achieve long-term customer loyalty in an increasingly competitive logistics market..

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