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Determinants of Increased Customer Loyalty at PT Logistik Indonesia Network Thru Customer Satisfaction as an Intervening Variable

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ABSTRACT

This study aims to examine the influence of service quality and price perception on customer loyalty, with customer satisfaction as an intervening variable. This research is expected to increase customer loyalty at PT Logistik Indonsia Network. The sampling method used Purposive and Simple Random Sampling by distributing questionnaires to 173 B2B respondents of PT Logistik Indonesia Network. The questionnaire data was processed using SMART PLS software version 4.0.9.9. The research results indicate that service quality and price perception have a positive and significant impact on customer satisfaction. Service quality has a positive but insignificant impact on customer loyalty, while price perception has a positive and significant impact on customer loyalty. Customer satisfaction is able to mediate between service quality and price perception toward customer loyalty. This finding confirms that in the B2B logistics industry, customer loyalty enhancement strategies are not sufficient by simply improving service quality, but must also be balanced with competitive pricing and the creation of satisfying customer experiences. PT Logistik Indonesia Network can consider optimizing service effectiveness, improving delivery timeliness, and developing more flexible pricing schemes to enhance customer satisfaction and loyalty.

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1. INTRODUCTION

The development of the digital economy in the last decade has driven fundamental changes in the distribution systems for goods and logistics services in Indonesia. The significant year-on-year increase in e-commerce transactions indicates that digitalization has become a major driver of growth in the national logistics sector. As the public's need for fast, accurate, and secure delivery services increases, the logistics industry is becoming increasingly competitive, with various companies striving to offer the best services to maintain their market position. This growth is also driven by increasing internet

penetration, changing consumer patterns, and the expanding digital ecosystem that supports online buying and selling activities.

However, rapid growth at the macro level does not always translate directly into improved service quality at the company level. The intense competition requires logistics companies to improve operational efficiency while prioritizing customer satisfaction. In service-based industries like logistics, service quality and price perception become strategic factors that determine a company's success in maintaining and increasing customer loyalty. This is because customers don't just consider speed or price, but also service consistency, responsiveness, reliability, and their overall experience interacting with the company.

This condition is also experienced by PT Logistik Indonesia Network (Linkexpress), a shipping service company operating in the national logistics sector. Despite being in a market with great potential, Linkexpress faces various operational and marketing issues that could hinder customer loyalty. Internal data shows that the company's performance fluctuates, particularly due to inaccurate lead times, limited fleet availability, suboptimal communication within the marketing team, and damage to goods during shipping. Additionally, the company's pricing structure has not consistently demonstrated a competitive advantage across different regions, leading to varying customer price perceptions that can influence their decision to reuse the service.

This problem is reflected in the data showing a decline in the number of customers over the past three years, as well as the company's failure to meet its revenue targets despite the overall positive growth in the logistics market. The stagnant and insignificant increase in the number of long-term customers indicates a low customer retention rate. This circumstance implies a difference in service quality and price perception, which has a direct impact on consumer satisfaction. If left unaddressed, companies risk losing competitiveness, especially since logistics customers have many alternatives in the market offering competitive rates and fast service.

Several previous studies have identified service quality as a crucial element in consumer happiness and loyalty. Safitri and Hayati [17], Risnawati [16], and Sembiring and Fordian [19] discovered that service quality has a significant positive impact on customer satisfaction and is essential for building loyalty. In contrast, perceptions of fair, value-for-money, and competitive pricing have a major impact on consumer satisfaction and repurchase intention [5][21][9]. Furthermore, several studies have indicated that customer satisfaction mediates the relationship between service quality and price perception, leading to loyalty [13] [1].

However, most previous research has been conducted on large-scale logistics companies or public transportation companies, so the context of medium-sized logistics companies facing operational constraints, resource limitations, and service inconsistencies has not been extensively investigated. Additionally, some studies only tested the direct influence between variables without integrating internal company factors, such as competitive dynamics, customer perceptions of service variations in each region, and the phenomenon of declining numbers of long-term customers. This indicates a research gap that needs to be bridged with more comprehensive analysis.

Based on this gap, this study proposes a more comprehensive approach that investigates the impact of service quality and price perception on customer loyalty with customer satisfaction as an intervening variable, using empirical data from PT Logistik Indonesia Network's Business-to-Business (B2B) customers. This method is intended to provide a comprehensive picture of how service quality and pricing perception affect customer satisfaction and, ultimately, customer loyalty levels in the context of logistical competition.

This study is unique in that it combines empirical company phenomena with theoretical models that have been proven in previous studies, as well as focussing on the dynamics of the logistics sector, which has unique characteristics such as inter-regional tariff variations, reliance on distribution infrastructure, and delivery speed competition. This research also provides practical contributions to

companies by offering data-driven strategic recommendations to improve service quality, refine pricing structures, and strengthen customer satisfaction systems as a foundation for building long-term loyalty.

2. METHOD

2.1. Research Design

This study employs a quantitative approach with a causal-associative research design aimed at examining the causal relationship between service quality, price perception, customer satisfaction, and customer loyalty variables. According to Sugiyono [20], causal research is used to test both the direct and indirect effects between variables that have been formulated in the hypothesis. The research was conducted on Business-to-Business (B2B) customers of PT Logistik Indonesia Network located in Cibubur, Bekasi City.

2.2. Research Instruments

This study was conceptually planned as a survey, with a questionnaire instrument serving as the major data gathering technique. The survey approach was chosen because it produces representative, feasible, and appropriate primary data for studies aimed at examining respondents' opinions and attitudes on a large scale [20]. Four key variables were examined: service quality and pricing perception as exogenous variables, and customer satisfaction and loyalty as endogenous variables. All variables were converted into measurable indicators using a five-point Likert scale, as proposed by Sugiyono [20] for assessing attitudes and perceptions.

A pilot test is performed to create and validate the instrument prior to its implementation. The Pearson Product Moment validity test was applied to each statement item to confirm consistency between the instrument items and the construct being assessed. Items with an r-calculated value greater than the r-table value at a 5% significance level are deemed legitimate [6]. The reliability was then verified using Cronbach's Alpha. The instrument was considered dependable if its alpha value was more than 0.70, suggesting strong internal consistency [7]. This method ensures that the final questionnaire contains only valid and reliable items.

2.3. Population and Sample

The study population consists of 302 B2B customers of PT Logistik Indonesia Network in 2024. The sampling technique was conducted in stages thru purposive sampling to select respondents who met the B2B criteria, followed by simple random sampling to give each member of the population who met the criteria an equal chance. The sample size was determined using Slovin's formula with a 5% margin of error, resulting in a minimum sample size of 173 respondents.

2.4. Data Collection Techniques

Primary data was collected by distributing questionnaires with structured statements about respondents' impressions of the research variables. Respondents provided answers based on their experiences by selecting one of five Likert scale categories. In addition to primary data, the research utilizes secondary data in the form of company documents, historical reports, academic literature, and supporting information from online sources.

2.5. Data Analysis Techniques

After the data is obtained, the next step is quantitative processing and analysis. All data was first cleaned of errors, incomplete responses, and outliers. The analysis process was conducted using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach thru the SmartPLS software. This approach was chosen because it can estimate causal relationships in complex models, while also being suitable for research with reflective indicators and a medium to large sample size [7].

PLS-SEM analysis includes two main stages: testing the outer model and the inner model. The outer model is used to examine concept validity and reliability, which are tested using loading factors (> 0.70), Average Variance Extracted or AVE (> 0.50), cross-loadings for discriminant validity, Composite Reliability, and Cronbach's Alpha (> 0.70). This stage guarantees that the indicators employed can assess the research constructs accurately and consistently.

Next, the inner model is used to assess the structural relationships between latent variables. Evaluation was conducted using the R-squared value to assess the model's predictive power, and path coefficients to evaluate the direction and strength of influence between variables. The significance test for the coefficients was performed using the bootstrapping procedure by comparing the T-statistic value to the T-table value of 1.96 at a significance level of 5%. If the T-statistic value exceeds this limit, the hypothesis is considered accepted [7].

3. RESULTS AND DISCUSSION

3.1. Structural Equation Modeling (SEM) Analysis

Structural Equation Modelling is an analytical approach for determining the link between indicator variables, or observed variables, and their latent variables. A structural equation describes the link between two or more latent variables. Based on the objectives of this research, which are to determine and analyze the influence of exogenous variables (service quality and price perception) on the endogenous variable (customer loyalty) involving the intervening variable (customer satisfaction), the modeling approach and solution techniques used as an analysis tool in this research are Structural Equation Modeling (SEM). There are three stages of PLS analysis: 1) structural model analysis (inner model); 2) measurement model analysis (outer model); and 3) hypothesis testing.

3.1.1. Analysis of the Measurement Model (Outer Model)

According to Ghozali and Latan [7], the outer model, also known as the measurement model, specifies how each indication in that block is related to the latent variable. The outer model evaluates the construct validity and reliability of the measuring techniques used. It is important to know how well a research tool can measure what it is supposed to measure, as well as the extent to which the measurement tool can be consistent in assessing a concept or the consistency of respondents in providing answers to the questions in the questionnaire or research tool. Ghozali and Latan [7] explain that in a measurement model, there are several types of measurements that must be performed, namely convergent validity, discriminant validity, and composite reliability (Cronbach's alpha).

3.1.1.1. Convergent Validity

This validity relates to the idea that the measurement of a construct must show a sufficiently strong relationship. Convergent validity testing for reflective indicators was conducted using the SmartPLS 4.0.9.9 application, and the results can be analyzed thru the factor loading values of each construct indicator. According to Ghozali and Latan [7], a loading factor of larger than 0.70 implies that the indication is valid.

Table 1. Convergent Validity (Outer Loading)

Indicator	Estimation Result
X1.1 <- X1	0.979
X1.2 <- X1	0.975
X1.3 <- X1	0.975
X1.4 <- X1	0.973
X1.5 <- X1	0.975
X1.6 <- X1	0.969
X1.7 <- X1	0.962

Indicator	Estimation Result
X2.1 <- X2	0.978
X2.2 <- X2	0.976
X2.3 <- X2	0.979
X2.4 <- X2	0.976
Y1 <- Y	0.975
Y2 <- Y	0.977
Y3 <- Y	0.978
Z1 <- Z	0.969
Z2 <- Z	0.978
Z3 <- Z	0.974
Z4 <- Z	0.976

Source: Data processed by SmartPLS (2025)

Based on the table above, the estimation results show that all indicator values have met the criteria of > 0.70.

3.1.1.2. Discriminant Validity

This validity relates to the principle that measures of different constructs should not have very strong correlations with each other. Discriminant validity happens when two separate instruments assessing two predicted concepts are unrelated and yield unrelated results. The Fornell-Larcker Criterion is a commonly used method for determining discriminant validity.

Table 2. Cross-Loading Factors on the Entrepreneurship Variable

Variable	Service Quality	Price Perception	Customer Satisfaction	Customer Loyalty
Service Quality	0.973			
Price Perception	0.626	0.977		
Customer Satisfaction	0.745	0.602	0.977	
Customer Loyalty	0.662	0.599	0.798	0.974

Source: Data processed by SmartPLS (2025)

Based on the results in Table 2 and supported by the Fornell-Larcker Criterion analysis, it can be concluded that each construct has met the discriminant validity criteria. This is demonstrated by two main aspects: first, the loading value of each indicator on its construct is higher than the cross-loading value on other constructs. Second, the square root of the AVE (Average Variance Extracted) for each construct is greater than the correlation between other constructs in the model. Thus, it can be said that each construct is able to clearly differentiate itself from other constructs in the model, indicating that discriminant validity has been well met.

3.1.1.3. Composite Reliability or Cronbach's Alpha

Model review includes not just validity testing but also reliability testing to verify the correctness, consistency, and precision of the measuring tool in assessing that construct. A construct's dependability can be tested using two methods: Cronbach's Alpha and Composite dependability. However, Cronbach's Alpha frequently produces lower values, hence it is preferable to utilise Composite Reliability when testing a construct's reliability level. According to Ghazali and Latan (2020), a construct is considered reliable when the Cronbach's Alpha value is greater than 0.70 or the Composite Reliability is greater than 0.70.

Table 3. Coefficient of Determination

Variable	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
Service Quality	0.990	0.991	0.992	0.946
Price Perception	0.984	0.984	0.988	0.955
Customer Satisfaction	0.976	0.976	0.984	0.954
Customer Loyalty	0.982	0.982	0.987	0.949
Average				**0.951**

Source: Data processed by SmartPLS (2025)

Based on Table 3, it is known that the overall results of the composite reliability or Cronbach's alpha test have a value > 0.70, which means all variables are declared reliable.

3.1.2. Structural Analysis of the Model (Inner Model)

According to Ghozali and Latan [7], a structural model describes the relationships or estimated levels between latent variables or constructs developed based on theory. This model is used to predict the causal relationships between latent variables. When conducting testing with PLS, the R-squared value is used as a goodness-of-fit test, considering the R-squared value of each dependent variable. Changes in the R-squared value allow us to assess the impact of independent variables on dependent variables, to determine if there is a significant influence. There is a structural model that meets several criteria as follows:

3.1.2.1. Value of the Coefficient of Determination (R2)

According to Ghazali and Latan [7], R-squared is a measure of the coefficient of determination for endogenous constructs. An R-squared value of 0.75 is considered strong, 0.50 moderate, while 0.25 is considered weak.

Table 4. R-Square Result

Variable	R-square	R-square Adjusted
Customer Satisfaction	0.585	0.580
Customer Loyalty	0.637	0.635
Average	**0.611**	**0.608**

Source: Data processed by SmartPLS (2025)

Based on the table above, to examine the influence of exogenous variables, in this case, service quality and price perception, on the endogenous variables, namely customer satisfaction and employe loyalty. For the customer satisfaction variable, which has a value of 0.585, this means that 58.5% of customer satisfaction can be explained by service quality and price perception, while 41.5% is explained by other factors not analyzed in this study. Meanwhile, for the employe loyalty variable, the R2 value is 0.637, which means that approximately 63.7% of customer loyalty can be explained by service quality and price perception. The remaining 36.3% is explained by other variables not included in this study. Overall, according to Ghazali and Latan [7], the ability of the independent variables to explain the dependent variable falls into the moderate category (ranging from 0.50 = moderate).

3.1.2.2. F-Square (Effect Size)

Based on research by Ghazali and Latan [7], F Square has the ability to evaluate the impact of latent variables on other variables. The f-square effect values are categorized as 0.35 (large), 0.15 (medium), and 0.02 (small).

Table 5. F-Square Result

Variable	F-square
Service Quality → Customer Satisfaction	0.538
Price Perception → Customer Satisfaction	0.073
Service Quality → Customer Loyalty	0.009
Price Perception → Customer Loyalty	0.044
Customer Satisfaction → Customer Loyalty	0.494

Source: Data processed by SmartPLS (2025)

Variables in this study model varies from extremely tiny to significant. The link between Service Quality and Customer Satisfaction has the highest f-square value, 0.538, putting it in the large group. This demonstrates how service quality contributes significantly to enhanced customer happiness. Furthermore, the variable Customer Satisfaction with Customer Loyalty has a high f-square value of 0.494, indicating a significant influence. This finding shows that customer satisfaction is an important factor in increasing customer loyalty.

Meanwhile, the association between Price Perception and Customer Satisfaction was 0.073, and Price Perception and Customer Loyalty was 0.044, both of which were minor. This indicates that pricing perception has a limited impact on both customer happiness and loyalty. The f-square value for the association between Service Quality and Customer Loyalty is 0.009, which is less than the minimum threshold of 0.02, indicating that it has little or no influence.

3.1.2.3. PLS Predict (Q2)

Q2 > 0 shows a model's predictive significance, while Q2 < 0 indicates less predictive relevance [7]. Meanwhile, according to Hair & Alamer [8], the stages for determining whether there is good predictive power or not, the criteria include the following:

1) RMSE and MAE SEM-PLS < RMSE and MAE LM (Linear Regression) = there is predictive relevance.
2) If RMSE and MAE SEM-PLS < RMSE and MAE LM for only a small portion, then the predictive power is low.
3) If RMSE and MAE SEM-PLS < RMSE and MAE LM for a significant portion, then the predictive power is medium.
4) If all RMSE and MAE SEM-PLS < RMSE and MAE LM, then the predictive power is high.

Table 6. PLS Predict

	Q^2predict	PLS-SEM_RMSE	PLS-SEM_MAE	LM_RMSE	LM_MAE
Y1	0.531	0.615	0.482	0.626	0.490
Y2	0.560	0.620	0.505	0.634	0.510
Y3	0.550	0.615	0.481	0.623	0.493
Z1	0.458	0.665	0.523	0.686	0.546
Z2	0.458	0.689	0.542	0.713	0.568
Z3	0.441	0.695	0.545	0.723	0.568
Z4	0.463	0.688	0.541	0.706	0.558

Source: Data processed by SmartPLS (2025)

Based on Table 6, it is known that all Q2 values are > 0, so it can be concluded that there is predictive relevance. Furthermore, based on the table above, all RMSE and MAE values for SEM-PLS are < RMSE and MAE for LM. Therefore, it can be concluded that the PLS model created has high predictive power.

3.1.2.4. Model Fit

Model Fit aims to evaluate the suitability of research data or a model, determining whether the model can be applied or not. This feasibility assessment is based on several indicators, namely the SRMR value, Chi-Square, and NFI, which were obtained thru data processing using SmartPLS version 4.0.9.9.

Table 7. Model Fit

	Saturated Model	Estimated Model
SRMR	0.016	0.016
d_ULS	0.044	0.044
d_G	0.222	0.222
Chi-square	229.045	229.045
NFI	0.963	0.963

Source: Data processed by SmartPLS (2025)

Based on Table 7 Model Fit, the test results show that this research model meets the model suitability criteria (goodness of fit) proposed by Ghozali and Latan [7]. The SRMR (Standardised Root Mean Square Residual) value of 0.016 is significantly lower than the recommended limit of 0.10 and even 0.08, indicating that the model has a high level of fit. The values of d_ULS (Unweighted Least Squares Discrepancy) at 0.044 and d_G (Geodesic Discrepancy) at 0.222 are also considered low, indicating a very small difference between the observed and estimated covariance matrices. This strengthens the evidence that the model used is a good fit.

Furthermore, the NFI (Normed Fit Index) value obtained was 0.963, which is above the cut-off value of 0.90 as suggested by Ghozali, indicating a high level of model fit. Thus, according to the model suitability criteria according to Ghozali and Latan [7], it can be concluded that this research model has excellent goodness of fit, making it suitable for further analysis.

3.1.2.5. Goodness of Fit (GoF)

To validate the overall model, the Goodness of Fit (GoF) index is used. The GoF index is a single indicator used to assess the performance of both the measurement and structural models. To calculate the GoF value, multiply the average communalities index by the model's R^2 value. Here is the calculation of the GoF value in this study :

$$\text{Gof} = \sqrt{Average\ of\ AVE\ x\ Average\ of\ R^2}$$
$$\text{Gof} = \sqrt{0.951\ x 0.608}$$
$$\text{Gof} = \sqrt{0.578}$$
$$\text{Gof} = 0.760$$

The GoF value falls within the range of 0 to 1, with the following interpretation: a value of 0.36 indicates a high level of GoF, a value of 0.25 indicates moderate GoF, and a value of 0.10 indicates low GoF. Based on the calculation results, the GoF value obtained is 0.760, which means the research has a high GoF value. Thus, it can be concluded that the model in this study is valid and has good and feasible performance.

3.2. Hypothesis Testing

This test was performed by comparing the T-statistic values for outer loadings to the t-table value was 1.96 at a 5% level of significance [7]. This value was achieved by repeating the bootstrapping process 5,000 times with SmartPLS 4.0.9.9, as illustrated in the accompanying figure:

Ghozali and Latan [7] state that if the probability value (P) < 0.05, the alternative hypothesis (Ha) is accepted and the null hypothesis (H0) is rejected. Therefore, the hypothesis in this study is accepted. The following table shows the values for direct and indirect effects:

Table 8. Path Coeffiecient & Specific Indirect Effect

Hypothesis	Original Sample (O)	T Stat.	P Val.	Result
Service Quality → Customer Satisfaction	0.606	11.163	0.000	**H1 :** Accepted
Price Perception → Customer Satisfaction	0.223	3.548	0.000	**H2 :** Accepted
Service Quality → Customer Loyalty	0.088	1.197	0.116	**H3 :** Rejected
Price Perception → Customer Loyalty	0.162	2.685	0.004	**H4 :** Accepted
Customer Satisfaction → Customer Loyalty	0.635	9.169	0.000	**H5 :** Accepted
Service Quality → Customer Satisfaction → Customer Loyalty	0.384	6.551	0.000	**H6 :** Accepted
Price Perception → Customer Satisfaction → Customer Loyalty	0.141	3.475	0.000	**H7 :** Accepted

Source: Data processed by SmartPLS (2025)

3.2.1. The Influence of Service Quality on Customer Satisfaction

The first hypothesis (H1) posits that service quality has a significant and positive direct impact on customer satisfaction. According to the bootstrapping calculation results, the resulting coefficient value is 0.606, the t-statistic value is 11.163 (more than 1.96), and the p-value is 0.000. It is concluded that the initial hypothesis (H1) was accepted. Thus, the first hypothesis is accepted, meaning that the higher the quality of service offered by the business, the larger the level of customer satisfaction.

This study supports Rahman and Prasetyo's [14] finding that service quality has a positive and significant effect on customer satisfaction in Indonesia's logistics sector. The study confirms that delivery reliability, timeliness, and complaint handling are key indicators that shape customer satisfaction perceptions. Similar findings were also presented by Lee and Kim [11], who researched the e-commerce sector in South Korea. They found that improvements in digital responsiveness, such as faster response times to customer inquiries and real-time shipping information, significantly increased customer satisfaction.

Additionally, research conducted by Sari and Nugroho [18] on the shipping service industry indicates that good service quality can increase customer satisfaction despite price changes, as long as customers feel the value received is comparable to the cost incurred. This suggests that perceived value may operate as a moderator in the relationship between service quality and customer happiness.

Overall, the findings of this study reinforce the empirical evidence that service quality is an important determinant of customer satisfaction across various sectors, particularly in the logistics and shipping services industry. Therefore, companies need to prioritize improving service dimensions that have the most direct impact on customer experience, such as response speed, reliability in delivery, and transparent communication thru digital channels. A planned and continuous service quality improvement strategy will have a positive impact on increasing satisfaction and ultimately strengthen customer loyalty.

3.2.2. The Influence of Price Perception on Customer Satisfaction

The second hypothesis (H2) proposes that pricing perception has a positive and significant direct impact on customer satisfaction. According to the bootstrapping calculation results, the coefficient is 0.223, the t-statistic is 3.548 (more than 1.96), and the p-value is 0.000. As a consequence, the second hypothesis is accepted: the more positive customers' judgements of the company's price, the higher their level of satisfaction. This shows that customers are more likely to be satisfied when the price offered is reasonable, competitive, and proportionate to the benefits of the service gained.

Hidayat and Kusuma [10] discovered that pricing perception had a favourable and significant influence on customer satisfaction in the Indonesian delivery service sector, which supports the findings of this study. They emphasised that clients are satisfied when the price they pay is reasonable and in line with the level of service offered. Similarly, in their research of the Chinese logistics industry, Chen and Li [2] discovered that price transparency and cost-service alignment have a direct impact on consumer satisfaction. Furthermore, Ramadhani [15] found that pricing perception can improve the link between service quality and customer happiness, particularly when customers perceive a balance between the expenses and advantages they receive.

Overall, these findings confirm that pricing perception is an essential element in determining consumer satisfaction in the logistics industry. This suggests that sensible, competitive pricing combined with high-quality service can greatly boost consumer happiness. As a result, organisations must ensure that their pricing strategies take into account the perceived value of their customers and maintain consistency between price and service quality.

3.2.3. The Influence of Service Quality on Customer Loyalty

The third hypothesis (H3) states that there is a direct, positive, and significant influence of service quality on customer loyalty. Based on the bootstrapping calculation results, the coefficient value is 0.088, the t-statistic value is 1.197 < 1.96, and the p-value is 0.116. Therefore, the first hypothesis (H3) is rejected. This result indicates that improving service quality does not necessarily have a direct impact on increasing customer loyalty at PT Logistik Indonesia Network.

This finding aligns with recent research by Wijaya and Rakhman [22], which found that service quality does not have a significant direct impact on customer loyalty in the transportation service industry, but does have an indirect impact thru customer satisfaction as a mediating variable. Similar results were also found by Li and Zhang [12] in their study of the logistics sector in East Asia, where service quality only increased loyalty when customers felt satisfied and trusted the brand in question. Additionally, research by Rahman and Prasetyo [14] also indicates that customer loyalty is more influenced by a combination of factors, such as trust, positive experiences, and fair price perception, rather than service quality alone.

Thus, the findings of this study show that, while service quality is a key factor in providing a great customer experience, its impact on loyalty is indirect. To promote customer loyalty, PT Logistik Indonesia Network's strategy should focus on improving customer satisfaction, strengthening emotional relationships, and delivering service value consistently. An integrated approach that combines service quality, satisfaction, and client trust is supposed to result in long-term loyalty.

3.2.4. The Influence of Price Perception on Customer Loyalty

The fourth hypothesis (H4) states that pricing perception has a positive and significant direct impact on consumer loyalty. Based on the bootstrapping results, the calculated coefficient is 0.162, the t-statistic is 2.685 > 1.96, and the p-value is 0.004. Thus, the fourth hypothesis (H4) is adopted. This finding demonstrates that the more positive consumer impressions of the company's prices, the more loyal customers are to PT Logistik Indonesia Network's services.

The findings of this study are similarly congruent with those of Dewi and Pratama [4], who discovered that fair and transparent price perceptions have a significant impact on customer loyalty in the Indonesian shipping service business. According to the study, customers who thought they got a good value for their money were more likely to engage in loyal behaviours like reordering and promoting the service to others. Chen and Li [2] addressed the same argument in their study of the Chinese logistics sector, discovering that positive price perceptions can boost customer loyalty by enhancing trust and happiness.

Furthermore, a study by Ramadhani [15] discovered that pricing perception not only has a direct impact on consumer loyalty, but it also serves as a component in strengthening the association between satisfaction and loyalty. Customers that believe the price paid is justified by the benefits obtained are more likely to stay loyal, even if competitors offer lower costs.

Thus, the findings of this study suggest that price perception is a key predictor of consumer loyalty. PT Logistik Indonesia Network must maintain a competitive, transparent, and service-quality-aligned pricing approach to ensure long-term client loyalty.

3.2.5. The Influence of Customer Satisfaction on Customer Loyalty

The fifth hypothesis (H5) contends that service quality has a positive effect on customer satisfaction. The bootstrapping process produced a coefficient of 0.635, a t-statistic value of 9.169 (greater than 1.96), and a p-value of 0.000. As a result, the fifth hypothesis (H5) is ruled valid. Client satisfaction has a positive and significant influence on client loyalty. This research implies that the more clients' expressed pleasure, the stronger their loyalty to PT Logistik Indonesia Network.

This study's findings are also consistent with prior research by Rahman and Prasetyo [14], who revealed that customer satisfaction had a substantial impact on customer loyalty in Indonesia's logistics sector. The study reveals that great experiences in terms of delivery reliability, fast service, and effective communication are the most important variables in shaping satisfaction, which generates loyalty. Similarly, in the East Asian logistics sector, Li and Zhang [12] discovered that customer pleasure was a greater predictor of loyalty than service quality characteristics itself. Furthermore, Dewi and Pratama [4] found that high levels of satisfaction might improve the emotional tie between clients and the company, resulting in long-term loyalty.

Overall, these results strengthen the empirical evidence that customer satisfaction is a key determinant of customer loyalty. Increased satisfaction can be achieved thru consistent service quality improvements, faster response times to complaints, and providing added value that exceeds customer expectations. A strategy focused on continuously improving satisfaction is expected to foster strong and sustainable customer loyalty.

3.2.6. The Influence of Service Quality on Customer Loyalty thru Customer Satisfaction

The sixth hypothesis (H6) says that there is a positive association between service quality and customer pleasure through consumer satisfaction. According to the bootstrapping results, the coefficient value is 0.384, the t-statistic value is 6.551 (more than 1.96), and the p-value is 0.000. As a result, the sixth hypothesis (H6) is considered acceptable. This shows that customer satisfaction is an essential moderator in the link between service quality and customer loyalty at PT Logistik Indonesia Network. In other words, service quality has an indirect effect on loyalty since it first improves customer satisfaction.

This study's findings are also consistent with those of Wijaya and Rakhman [22], who observed that while service quality has a small direct impact on customer loyalty, it becomes significant when mediated by customer satisfaction. This shows that customers prefer to internalise service experiences before making long-term commitments to a business or organisation. Li and Zhang [12] found similar results in the East Asian logistics industry, suggesting that customer satisfaction has a significant impact on the relationship between service quality and loyalty. According to the study, service quality aspects including dependability, responsiveness, and assurance significantly increase satisfaction, which leads to loyalty via customer trust and attachment.

Additionally, research by Rahman and Prasetyo [14] in the context of logistics in Indonesia reinforces that the relationship between service quality and loyalty is indirect. They found that improving service quality, such as on-time delivery and ease of tracking goods, does not necessarily

increase loyalty if customers are not already satisfied with the overall service experience. Thus, satisfaction acts as a bridge connecting positive perceptions of service with customer loyalty behavior.

Practically speaking, these results have important implications for PT Logistik Indonesia Network. Companies not only need to focus on improving service quality in technical aspects, but also need to ensure that the service is capable of creating a pleasant and satisfying experience for customers. Strategies to increase satisfaction can be implemented by strengthening two-way communication, accelerating response to complaints, maintaining delivery reliability, and providing added value that exceeds customer expectations. By consistently increasing satisfaction, the long-term effect of strong and sustainable customer loyalty can be achieved. Thus, the findings of this study suggest that customer pleasure is an important mediating factor in boosting the influence of service quality on customer loyalty. Good service quality fosters a sense of contentment, which eventually becomes the foundation for client loyalty.

3.2.7. The Influence of Price Perception on Customer Loyalty thru Customer Satisfaction

The seventh hypothesis (H7) proposes that pricing perception has a beneficial influence on customer satisfaction via customer satisfaction. Based on the results of the bootstrapping calculation, the coefficient value is 0.141, the t-statistic value is 3.475 which is greater than 1.96, and the p-value is 0.000. Therefore, the seventh hypothesis (H7) is accepted. This means that price perception has a positive and significant influence on customer loyalty thru customer satisfaction. This suggests that customers who have a positive price perception are more satisfied, which encourages stronger loyalty to the brand.

The results of this study support previous findings by Dewi and Suryani [3], showing that price perception has a significant influence on customer satisfaction, which in turn strengthens loyalty by increasing trust and commitment to the brand.

Pricing that is competitive, transparent, and in line with service quality is one of the most important variables in building positive client perceptions. Customers will be satisfied when they believe the shipping fees they pay are reasonable in relation to the timeliness, security, and dependability of the service they receive. That contentment led to a desire to continue using the same service and recommending it to others. Thus, organisations can build customer loyalty not only by enhancing service quality, but also by implementing fair and high-value pricing strategies that customers perceive as valuable.

4. CONCLUSION

Based on the results of the Partial Least Squares (PLS) analysis, this study discovered several noteworthy conclusions about the impact of service quality, price perception, satisfaction, and customer loyalty on the PT Logistik Indonesia network. Service quality and price perception have both been shown to have an important influence in enhancing customer happiness. Customer satisfaction increases with better service and more affordable pricing. This demonstrates that both variables are critical components in creating a great client experience. Service quality has little direct impact on client loyalty. This finding suggests that loyalty is not solely formed by perceptions of service quality, but is more influenced by the level of satisfaction that arises after customers use the service. Conversely, perceptions of fair and competitive pricing are able to directly drive the formation of customer loyalty. Customer satisfaction has proven to be the most dominant factor in influencing loyalty. Satisfied customers tend to continue using the company's services, provide positive recommendations, and maintain long-term relationships. Satisfaction also serves as a strong mediating variable, both in the relationship between service quality and perceived price and loyalty. Positive service quality and price first increase satisfaction, which then drives customer loyalty.

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