

Port Services and its Implications for Customer Loyalty Freight Forwarding Company

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ABSTRACT

MAL as one of the container terminals in Tanjung Priok Port has experienced problems related to customers' loyalty. Container terminals and the emergence of new competitors are competing to improve service quality and offer perceived price to satisfy their customers where the level of perceived satisfaction is very important demand to get loyal customers. The objective of this study is to analyze the direct influence of port service quality and perceived price on customers loyalty and the indirect effect of customers' satisfaction on customers' loyalty. The analytical method this study used was the partial least squares method of the structural equation model with sampling technique, using a total sampling of 60 respondents representing export/import companies, shipping companies or agents, forwarding companies, and consignees. The results of this study are that the quality of port services and perceived price have a direct positive and significant effect with the endogenous variable of customers' loyalty and an indirect effect through the intervening variable of customers' satisfaction.

Keywords: port service quality, perceived price, customers' satisfaction, customers' loyalty, container terminal

A. Introduction

Port is one of very important links in the entire process of domestic and foreign trade. One of the container terminals that has a high level of activity in *Tanjung Priok* Port is the terminal managed by PT. Mustika Alam Lestari (MAL). PT. MAL, since July 2004, has been operating the wharf and stacking field at KADE number 214 and 300 of *Tanjung Priok* Port. The realization of loading and unloading performance from 2016 to 2019 is still below the target and likewise, the realization of container delivery performance from 2016

to 2019 does not meet pre-determined performance standards by the port authority office as the port operator. Weaknesses in the services provided by PT. MAL is in line with the decline in the number of customers each year. The decrease in number of customers in the last four years means that there are problems related to customers' loyalty at PT. MAL. Symptoms of the problems that arise related to customers' loyalty including in 2020, there are three percent of companies no longer use their services and not all of their customers dare to enter into long-term agreements or cooperation with PT. MAL. In

addition, the emergence of a new competitor, PT. New Priok Container Terminal (NPCT) 1, which has newer and more sophisticated equipment and facilities has made the competition tougher, enabling its customers to switch to this terminal.

Based on the field observations, there are several problems related to factors suspected of causing problems related to customers' loyalty at PT. MAL. They are the performance productivity of the loading and unloading equipment at the container terminal is very low, the loading and unloading service time is very long, and the tariffs received by customers are not in accordance with the services provided, PT. MAL does not provide many discounts to its customers, low customer satisfaction with the performance of loading and unloading equipment, low customer satisfaction with the speed of loading and unloading service, low customers' desire to use PT. MAL and to tie up in a long-term cooperation. In addition, problems that occur with customers' loyalty in container terminals managed by PT. MAL is suspected of being influenced by the acceptance of prices charged to customers. The new rates and discounts provided by PT. MAL is not comparable to the services provided to its customers considering there are still deficiencies in its services.

In general, successful logistics' companies are related to the quality of services, especially when they can solve all problems with their customers (Bahamdain et al., 2022). The freight forwarding business includes containers, and the quality of service provision at container terminals is very important in attracting new customers and retaining existing customers (Sayareh et al., 2016). Freight forwarding companies generally act as agents to obtain logistics services for shippers and cooperate with carriers such as shipping lines (Huang et al., 2019). Besides, Balci et al., (2019), states that in the current conditions to survive in a competitive market, container lines need to maintain long-term customers' relationships by increasing customers' satisfaction and loyalty.

Based on the previous research, Thai, (2016) revealed that service quality in the maritime sector has six dimensions consisting of resources, outcomes, process, management, image, and social responsibility, with a total of 24 indicators explaining these dimensions. The research results of Yeo et al., (2015) reveal that Port Service Quality (PSQ) is a construct of five factors namely resources, results, process, management, image and responsibility. Improved PSQ positively affects customer satisfaction. In a previous study, Ha-Brookshire & Yoon, (2012) proposed several factors to measure the quality of port services, including the availability of information on port-related activities, port location, port completion time, available facilities, port management, port costs, and customer convenience. Basir et al., (2015) suggest that customer loyalty in marine transportation services has indicators, such as reusing the service and recommending to other customers, saying positive things, and selecting the prioritized service. A previous study by Cho et al., (2010) stated that the quality of service at the port of Shanghai, China requires strategic investment to improve the quality of internal and external services, especially for the larger shipping companies.

Price is one of the factors influence purchasing decisions. Most customers will react differently to prices. A quality product is perceived as one that meets customers' expectations at an acceptable price, or conforms to an acceptable cost (Kenyon et al., 2016). Referring to Kotler & Armstrong, (2018), Ha-Brookshire & Yoon, (2012) and Shirai & Bettman (2005) price is a unit of money paid by a customer for a service for the benefits of using or owning the goods or services. Typically, the lower the perceived price, the lower the perceived sacrifice (Consuegra et al., 2007). Besides, Roig et al., (2006), and Fandos Roig et al., (2009) state that perceived price can be interpreted as a customer's assessment of the average service price compared to its competitors.

Customers' satisfaction is a person's

feeling of pleasure or disappointment that arises after comparing the product performance that is thought of against the expected performance (Kotler & Keller, 2016). Acceptance of products that have higher quality will get a higher level of satisfaction than acceptance of products with lower quality (Sparks & McColl-Kennedy, 2001). Based on field observations, the quality of services provided by PT. MAL to its customers can be said to be unfavorable, including the low productivity of loading and unloading equipment owned and the long loading and unloading service time at PT. MAL.

Customers' loyalty means that consumers are satisfied with the products or services they consume or use and will continuously repurchase the same product or service from the manufacturer. Theoretically, Oliver, (2010b) states that customer loyalty is a person or institution who buys regularly and repeatedly. Loyal customers are very important for the business because the costs to get new customers are higher than maintaining the existing customers (Paul & Jerry C, 2010). According to Lovelock & Wirtz, (2011b) loyalty is a behaviours that is shown through repeated purchases for a long time, and recommending its products to friends or partners. Loyalty is a deeply held commitment to buy or re-patronize certain products or services in the future (Kotler & Keller, 2016). Meanwhile, according to (Islam et al., 2021) indicators of customer loyalty are continuing relationships, recommending partners, long-term cooperative relationships, and saying positive things..

According to (Arifiani et al., 2019), the service concept that underlies customers' satisfaction is the value that created by the service provider in a sustainable manner to be able to complete and solve customer problems, thereby increasing the loyalty of customers when the services provided meet customer expectations. Besides, (Arifiani et al., 2019) states the indicator of interaction with customers is one of the important indicators in improving the service provided by the

company to customers. Industries engaged in service providers such as transportation and logistics require services that also continue to innovate. Where it is also emphasized in service innovation research is needed by the service industry that can enable management Continuously break new ground in customer care and develop new solutions by creating high value in customer loyalty and increasing company performance. Based on field observations, symptoms of problems that occur related to customer loyalty at PT. MAL, namely as many as 3% of its customers who no longer use its services and not all its customers have the courage to enter into agreements for a long time.

This study aims to determine and analyze the direct and indirect effects of perceived price and port quality service based on loyalty and customer satisfaction of freight forwarding companies. Empirically the objectives of this study cover the seven hypotheses testing as follows.

The hypothesis in this study can be formulated as follows:

- H1: *Port service quality has a significant direct impact on customer satisfaction.*
- H2: *Perceived price has a significant direct impact on customer satisfaction.*
- H3: *Port service quality has a significant direct impact on customer loyalty.*
- H4: *Perceived price has a significant direct impact on customer loyalty.*
- H5: *Customer satisfaction has a significant direct impact on customer loyalty.*
- H6: *Port service quality has significant indirect impact on customer loyalty thru.customer satisfaction.*
- H7: *Perceived price has significant indirect impact on customer loyalty thru, customer. satisfaction.*

Based on the previous research, the constellation of causal relationships between variables occur, can be described as a conceptual model (Figure 1).

B. Methods

The target audience for this survey was customers directly involved in PT MAL consists of 60 companies including importers and exporters, shipping companies or agents, freight forwarders, and goods owners operating at container terminals. The technique used to determine the sample in this study used total sampling. It means that all members of the population were sampled to generalize with very small errors. The author took a sample of 60 respondents from a population representative of 60 companies, with one respondent for each company. Data analysis techniques in this study used Partial Least Square (PLS) with the help of Smart PLS 3.0 software. The part of the model was using Structural Equation Modeling Equations (SEM) with an approach of modeling structural equations based on dispersion or components.

C. Results and Discussion

1 Variable Measurement

In this study, a technical analysis of the data using partial least squares SEM is performed. The analysis consists of two sub-models the measurement model or external model and the structural model or internal

model. The following is a picture of the PLS SEM path diagram in this study (Figure 2).

Based on the table Convergent Validity Test Results as Appendix 1, which shows that the loading factor gives a value above that suggested which is greater than 0.7 which means the indicators used in this study are valid or have met convergent validity. The highest value is 0.892 for the Y2 indicator from the Customer Loyalty variable and the smallest value is 0.750 for the X1.3 indicator from the Service Quality variable. The following is a factor loading diagram for each indicator in the study (Figure 3).

2 Discriminant Validity and Reliability Test Results

Based on Table 1 and Table 2, it shows that the constructs in the study are valid with each construct having a value greater than 0.50.

H₁: The Effect of Port Service Quality on Customer Satisfaction

The calculation results show that the value of the coefficient of determination (R-Square) for customer satisfaction is 0,800 or 80% which can be interpreted that the quality of port services and perceived price has a contribution effect of 80% on

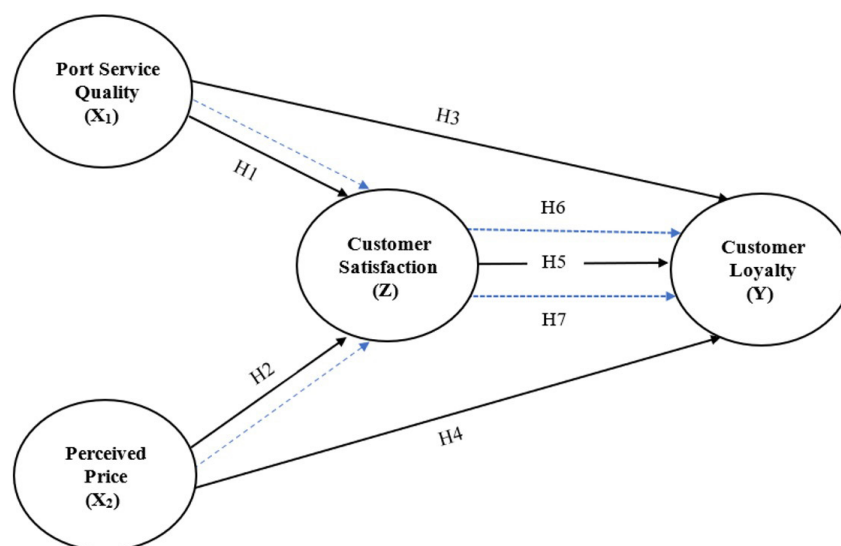


Figure 1 Conceptual Model

customer satisfaction. The calculation results show an $F_{\text{-square}}$ value of 3.11 which can be interpreted as the effect of port service quality on customer satisfaction has a large effect size. The calculation results show the original sample estimate LS value of 0.839 (positive value) which can be interpreted as that port service quality has a positive effect on customer satisfaction (Table 3). The $t_{\text{Statistics}}$ value is 18,516 and the P_{Value} is 0,000 which can be interpreted as port service quality has a significant effect on customer satisfaction. Empirically, this study states that port service quality has a positive and significant effect on customer satisfaction, and it can be stated that the first hypothesis can be accepted.

The results of this study support the studies of Gupta et al., (2022), Yuniasih et al., (2022), Sarmawa et al., (2021), Uvet, (2020), and Risnawati et al., (2019) that Service quality

in the logistics industry significantly affects customer satisfaction. In line with opinions regarding the quality of logistics services, shippers show satisfaction with the functional quality of logistics as a service provider (Bahamdain et al., 2022; Phan et al., 2021; Richu et al., 2022).

This research is aligned with the results of the hypothesis testing of service quality and customer satisfaction, especially in the freight forwarding industry (Gil-Saura et al., 2018). This is also in line with research Yorulmaz & Taş, (2022), Le et al., (2020), Thai, (2016), and Yeo et al., (2015) which suggests that the quality of port services has a direct and positive impact on customer satisfaction. The results of testing the hypothesis can be explained, if the container terminal PT. MAL is able to improve service quality so customer satisfaction will be formed, in line with research Le et al., (2020);

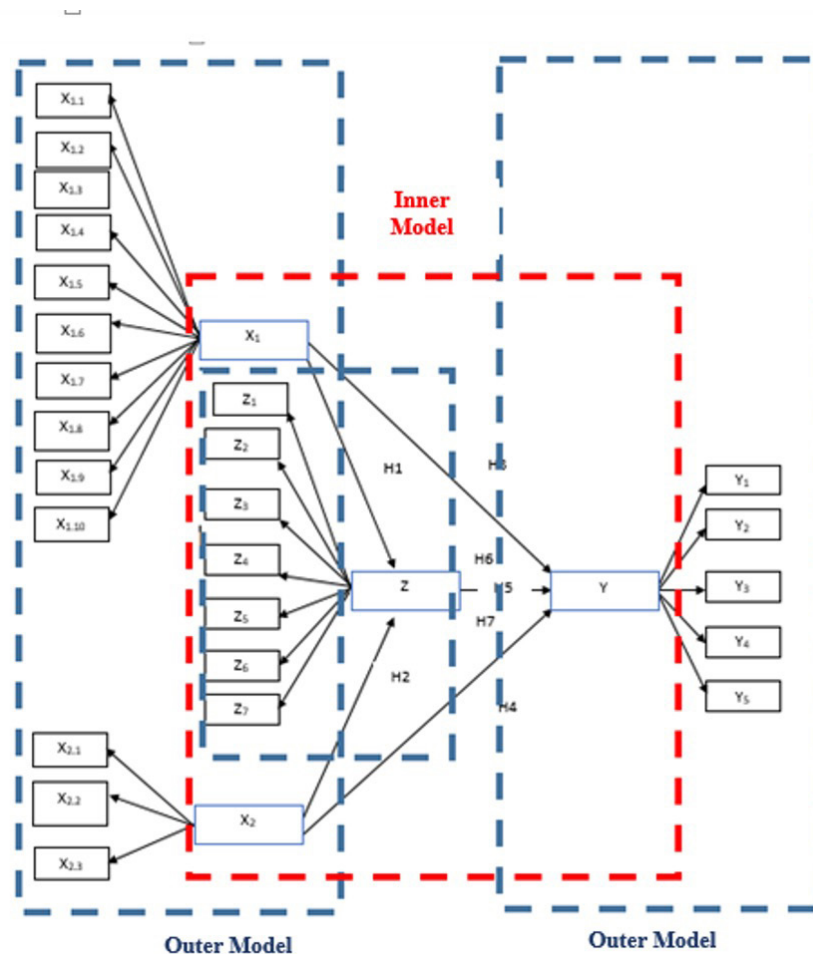


Figure 2 Research Path Diagram

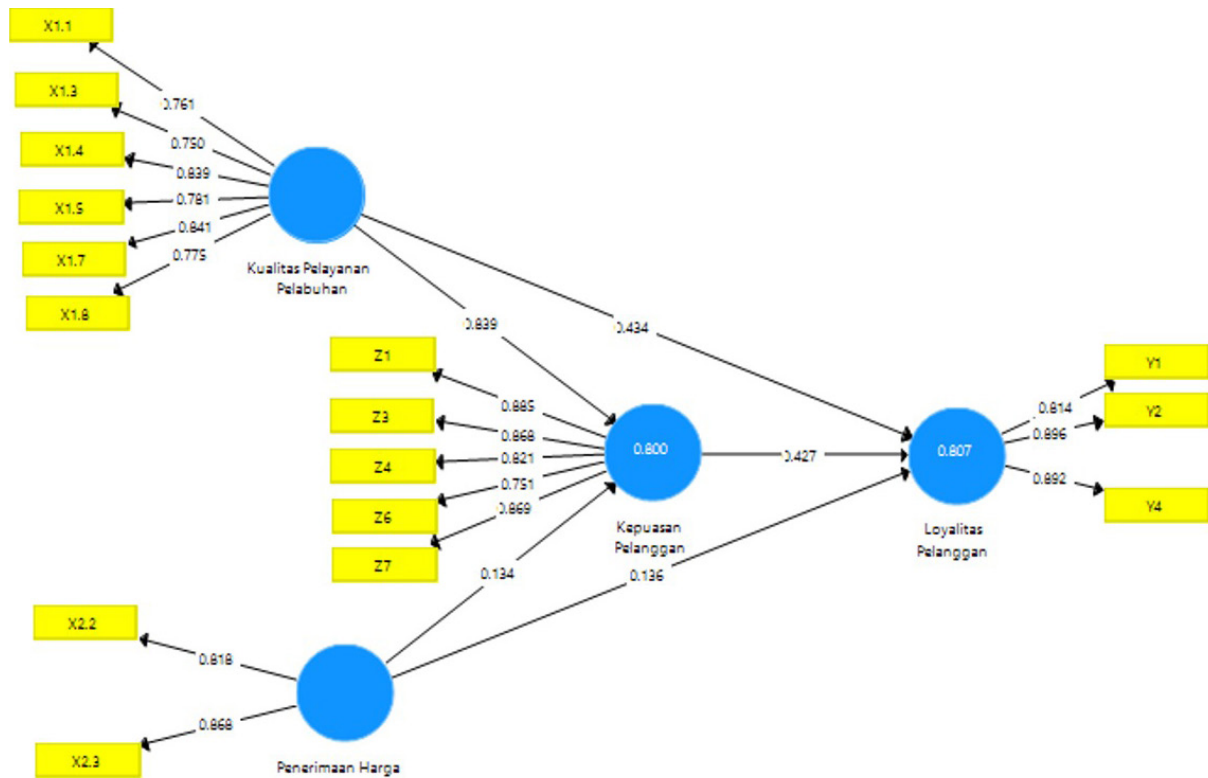


Figure 3 PLS Algorithm result display for Convergent Validity

Thai, (2016) and Yeo et al., (2015) which suggests that port service quality has a direct and positive impact on customer satisfaction.

H₂: The Effect of Perceived Price on Customer Satisfaction

The calculation results show the original sample estimate LS value of 0.134 (positive value) which can be interpreted to show that perceived price has a positive effect on customer satisfaction. $T_{Statistics}$ value of 2.068 and a P_{Value} of 0.020 which can be interpreted that perceived price has a significant effect on

customer satisfaction (Table 4). Empirically, this study states that perceived price has a positive and significant effect on customer satisfaction, and it can be stated that the second hypothesis can be accepted. The results of testing the hypothesis show that the better the customer accepts the price charged by PT. MAL to its customers will further increase the satisfaction of these customers. In line with research from Setiawan, (2021), which suggests that perceived price has a direct and positive impact on customer satisfaction. Theoretically, this study is in accordance with the study of Schiffman & Kanuk, (2007),

Table 1 Discriminant Validity Test Results

Variable	Average Variance Extracted (AVE)	Critical Value	Results
Customer Satisfaction	0.706	0.5	Valid
Port Service Quality	0.627	0.5	Valid
Customer Loyalty	0.754	0.5	Valid
Perceived price	0.711	0.5	Valid

Table 2 Composite Reliability Test Results

Variable	Composite Reliability	Critical Value	Average Variance Extracted (AVE)	Critical Value	Results
Customer Satisfaction	0.923	0.7	0.706	0.5	Reliable
Port Service Quality	0.910	0.7	0.627	0.5	Reliable
Customer Loyalty	0.902	0.7	0.754	0.5	Reliable
Perceived price	0.831	0.7	0.711	0.5	Reliable

Table 3 Estimate for Path Coefficients Testing Results for Port Service Quality on Customer Loyalty

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T _{Statistics} (O/STDEV)	P _{Values}
Port Service Quality ----> Customer Satisfaction	0.839	0.834	0.045	18.516	0.000

which states that perceived price has a strong influence on satisfaction in buying a product or service. Meanwhile, in general, the results of this study support the study of Yuniasih et al., (2022), that perceived price significantly affects customer satisfaction. The results of this research on freight forwarding companies support the study of Faeruzza & Soliha, (2023), which states that perceived price has a positive and significant impact on customer satisfaction. This research is still in accordance with the analysis of Pantouvakis & Dimas, (2013), which states that perceived price is indirectly related to customer satisfaction in the port industry.

H₃: The Effect of Service Quality on Customer Loyalty

The calculation results show an F_{-square} value of 0.210 which can be interpreted as the effect of port service quality on customer

loyalty has a moderate effect size. The calculation results show the original sample estimate LS value of 0.434 (positive value) which can be interpreted as the quality of port services has a positive effect on customer loyalty. Table 5 also shows a T_{Statistics} value of 3.020 and a P_{Value} of 0.001 which can be interpreted as the quality of port services has a significant effect on customer loyalty. Empirically, this study states that the quality of port services has a positive and significant effect on customer loyalty, and it can be stated that the third hypothesis can be accepted. The results of testing the hypothesis indicate that the increasing quality of services provided by PT. MAL to customers will also increase customer loyalty, in line with research Chang & Thai, (2016), which suggests that effect of service quality has a direct and positive impact on customer Loyalty.

Comprehensively, the results of this study are in line with the analysis of Tanod et

Table 4 Estimate for Path Coefficients Testing Results for Perceived price on Customer Satisfaction

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T _{Statistics} (O/STDEV)	P _{Values}
Perceived price -----> Customer Satisfaction	0.134	0.141	0.065	2.068	0.020

al., (2018), and Ricardianto et al., (2023) that service quality in the transportation industry has a positive effect on customer loyalty that can increase customer loyalty. Improved by improving the quality of customer service. The results of this study are also in line with Tanod et al., (2018), that service quality has a positive effect on customer loyalty, so that customer loyalty can be increased by improving the quality of customer service. The results of this study also support the findings of Jang et al., (2013) which showed that container shipping companies with a high level of quality of logistics services will achieve a higher level of shipper loyalty. In general, this study is also in line with the findings of several studies which reveal that the operational quality of logistics services has a significant effect on customer loyalty. (Davis, 2006; Huma et al., 2020; Risnawati et al., 2019). Regarding research on ports, the results of this research are in line with research Chang & Thai, (2016) which states that the quality of port services has a positive effect on customer loyalty. However, the research hypothesis shows that service quality does not have a significant effect on customer loyalty (Sarmawa et al., 2021).

H₄: The Effect of Perceived Price on Customer Loyalty

The calculation results show the original sample estimate LS value of 0.136 (positive value) which can be interpreted to show that perceived price has a positive effect on customer loyalty. Table 6 also shows a T_{Statistics} value of 2.117 and a P_{Value} of 0.017 which can be interpreted to say that perceived price has a significant effect on customer loyalty.

Empirically, this study states that perceived price has a positive and significant effect on customer loyalty, and it can be stated that the fourth hypothesis can be accepted. The results of the hypothesis show that the higher the price/tariff offered by PT. MAL can be accepted by its customers and the price is in accordance with the service received, it will automatically increase customer loyalty. In general, in transportation research, this research supports the study Ricardianto et al., (2023), which states that price policy is a fairly important determinant of customer loyalty. In line with research Setiawan, (2021) which suggests that if the price offered by the company is appropriate and acceptable to consumers, consumers will automatically be willing to pay and make repeat or loyal purchases.

H₅: The Effect of Customer Satisfaction on Customer Loyalty

The calculation results show an F_{-square} value of 0.189 which can be interpreted as the effect of customer satisfaction on customer loyalty has a moderate effect size. The calculation results show the original sample estimate LS value of 0.427 (positive value) which can be interpreted to say that customer satisfaction has a positive effect on customer loyalty. Table 7 also shows a T_{Statistics} value of 2.833 and a P_{Value} of 0.002 which can be interpreted to show that customer satisfaction has a significant effect on customer loyalty. Empirically, this study states that customer satisfaction has a positive and significant effect on customer loyalty, and it can be stated that the fifth hypothesis can be accepted. The results of testing this hypothesis can be explained

Table 5 Estimate for Path Coefficients Testing Results for Port Service Quality on Customer Loyalty

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T _{Statistics} (O/STDEV)	P _{Values}
Port Service Quality -----> Customer Loyalty	0.434	0.431	0.144	3.020	0.001

that the higher customer satisfaction at PT. MAL will encourage customer loyalty. This research is in line with research on delivery services which found significant results related to satisfaction and loyalty (Idris & Yaakob, 2020). This research is also in line with the study from Sarmawa et al., (2021), and Akbar & Parvez, (2009a) which explain that the satisfaction felt by customers will have a positive impact on companies, including encouraging customer loyalty. This research is also in line with the studies of Sayareh et al., (2016), Chang & Thai, (2016b), Efendi et al., (2021), and Faeruza & Soliha, (2023) who conducted studies on freight forwarding companies at several terminals port containers, that the higher customer satisfaction at the port will automatically increase customer loyalty..

H₆: The Effect of Service Quality through Customer Satisfaction on Customer Loyalty

Analysis of the indirect effect of port service quality through customer satisfaction on customer loyalty, it is known that the direct effect of port service quality on customer loyalty is 0.434. The indirect impact of port service quality on customer loyalty through customer satisfaction is obtained by

multiplying the pass coefficient value of port service quality to customer satisfaction and the pass coefficient value of customer satisfaction to customer loyalty, which is 0.358. becomes. Then the total effect that port service quality has on customer loyalty is a direct effect plus an indirect effect, is 0.792.

Table 8 shows that the direct effect value is 0.434 and the indirect effect value is 0.792, indicating that the indirect effect value is higher than the direct effect value. The results indicate that it has a significant impact on Customer satisfaction and builds customer loyalty. The path coefficient value has a significant indirect impact of 0.792 indicating that port service quality has a significant indirect impact on customer satisfaction through customer loyalty. Empirically, this study states port service quality through customer satisfaction has a positive and significant influence on customer loyalty and it can be stated that the sixth hypothesis can be accepted. This shows that the quality of port services through customer satisfaction has a positive and significant effect on customer loyalty, so it can be concluded that the customer satisfaction variable can mediate the perceived price variable on customer loyalty.

In the transportation industry in general, this research is in line with several studies

Table 6 Estimate for Path Coefficients Testing Results for
 Perceived price on Customer Loyalty

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/ STDEV)	P Values
Perceived price -----> Customer Loyalty	0.136	0.140	0.064	2.117	0.017

Table 7 Estimate for Path Coefficients Testing Results for
 Customer Satisfaction on Customer Loyalty

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/ STDEV)	P Values
Customer Satisfaction -----> Customer Loyalty	0.427	0.428	0.151	2.833	0.002

conducted by Joga et al., (2012), Esmailpour et al., (2022), Ardini et al., (2022), Al-Kautsar, (2022) and Singh, (2023), which shows that there is a relationship between relationships and services between service provider companies that affect loyalty directly and indirectly through customer satisfaction. Indirectly, this study supports previous research which showed that service quality has an impact on customer satisfaction and loyalty (Chao et al., 2023; Ellitan, 2023; Hamidin & Hendrayati, 2022; Imelda et al., 2021; Shahid Iqbal et al., 2018). This research also, is in line with service quality according to Marcos & Coelho, (2022) and Bowen & Chen, (2001) which has a close relationship with customer satisfaction and when customer satisfaction is achieved at a certain level, customer loyalty will increase significantly.

H₇: The Effect of Perceived price through Customer Satisfaction on Customer Loyalty

Analyzing the indirect effect of perceived price on customer loyalty through customer satisfaction, we find that the direct effect of perceived price on customer loyalty is 0.136. The indirect impact of perceived price on customer loyalty through customer satisfaction is 0.057 by multiplying the pass factor value of perceived price to customer satisfaction by the pass factor value of customer satisfaction to customer loyalty. In

this case, the total effect of perceived price on customer loyalty, which is the sum of the direct and indirect effects, is 0.193.

Table 9 shows that the direct impact value is 0.136 and the indirect effect is 0.193, indicating that the indirect effect value is higher than the direct. This suggests that price has a significant impact on customer satisfaction and Customer Loyalty. Pass coefficient values (original sample) have an indirect impact of 0.057 (positive value), indicating that indirectly perceived price through customer satisfaction has a significant impact on customer loyalty. Empirically, this study states that perceived price through customer satisfaction has a positive and significant influence on customer loyalty and it can be stated that the seventh hypothesis can be accepted. This shows that perceived price through customer satisfaction has a positive and significant effect on customer loyalty, so it can be concluded that the customer satisfaction variable can mediate the perceived price variable on customer loyalty.

The results of this study in the field of transportation support the results of hypothesis testing, that indirectly the perceived price variable has a significant and positive impact on customer satisfaction and loyalty (Khudhair et al., 2021; Setiawan, 2021; Suryatenggara & Dahlan, 2022). The results of this study are still in line with the study of Faeruz & Soliha, (2023), even though the perceived price variable does not have a significant and

Table 8 Indirect Influence Test Results Service Quality through Customer Satisfaction on Customer Loyalty

Connection	Direct Influence	Indirect Influence
Port Service Quality -> Customer Loyalty	0.434	-
Port Service Quality -> Customer Satisfaction	0.839	-
Customer Satisfaction -> Customer Loyalty	0.427	-
Port Service Quality -> Customer Satisfaction -> Customer Loyalty	-	0.792

Table 9 Indirect Impact Test Results Perceived Price thru
 Customer Satisfaction to Customer Loyalty

Connection	Direct Influence	Indirect Influence
Perceived price -> Customer Loyalty	0.136	-
Perceived price -> Customer Satisfaction	0.134	-
Customer Satisfaction -> Customer Loyalty	0.427	-
Port Service Quality -> Customer Satisfaction -> Customer Loyalty	-	0.193

positive impact on customer satisfaction and loyalty.

D. Conclusion

Based on the results of research with research indicators, respondents who have been determined and analysis of research data that has been done, it can be concluded that the perceptions of service users state that the quality of port services at the container terminal of PT. MAL is in the good category, but there is the lowest indicator of the quality of port services, namely service and fast response with a pretty good category. For the perception of perceived price at the container terminal PT. MAL is in the high category, but there is the lowest indicator of perceived price, namely the price is more expensive in the low category. For the perception of customer satisfaction at PT. MAL is in the high category, but there is the lowest indicator of customer satisfaction, namely overall satisfaction, in the normal category. For the perception of customer loyalty at PT. MAL is in the good category, but there is the lowest indicator of customer loyalty, namely the indicator of recommending to others in the mediocre category.

Based on the results of data analysis that has been done that port service quality has a positive and significant effect on customer satisfaction. Based on the results of data analysis that has been done, perceived price has a positive and significant effect on customer satisfaction. Based on the results of

data analysis that has been done, port service quality has a positive and significant effect on customer loyalty. Based on the results of the data analysis that has been done, Perceived price has a positive and significant effect on customer loyalty. Based on the results of data analysis that has been done that customer satisfaction has a positive and significant effect on customer loyalty. Based on the results of data analysis that has been carried out that the quality of port services has a positive and significant indirect effect on customer loyalty by mediating customer satisfaction.

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APPENDIX 1 :

Table Convergent Validity Test Results Using SmartPLS 3.0

Indicator	Variable					
	Customer satisfaction	Port Service Quality	Customer loyalty	Perceived price	Critical Value	Ket
X1.1		0.761			0.7	Valid
X1.3		0.750			0.7	Valid
X1.4		0.839			0.7	Valid
X1.5		0.781			0.7	Valid
X1.7		0.841			0.7	Valid
X1.8		0.775			0.7	Valid
X2.2				0.818	0.7	Valid
X2.3				0.868	0.7	Valid
Y1			0.814		0.7	Valid
Y2			0.896		0.7	Valid
Y4			0.892		0.7	Valid
Z1	0.885				0.7	Valid
Z3	0.868				0.7	Valid
Z4	0.821				0.7	Valid
Z6	0.751				0.7	Valid
Z7	0.869				0.7	Valid

APPENDIX 2 :

Table 2 Discriminant Validity Test Results Using SmartPLS 3.0

Variable	Average Variance Extracted (AVE)	Critical Value	Ket
Customer satisfaction	0.706	0.5	Valid
Port Service Quality	0.627	0.5	Valid
Customer loyalty	0.754	0.5	Valid
Perceived price	0.711	0.5	Valid

APPENDIX 3 :

Table 3 Composite Reliability Test Results Using SmartPLS 3.0

Variable	Composite Reliability	Critical Value	Average Variance Extracted (AVE)	Critical Value	Ket
Customer satisfaction	0.923	0.7	0.706	0.5	Reliable
Port Service Quality	0.910	0.7	0.627	0.5	Reliable
Customer loyalty	0.902	0.7	0.754	0.5	Reliable
Perceived price	0.831	0.7	0.711	0.5	Reliable