

## THE DRIVING FACTORS OF CUSTOMER LOYALTY: STUDY ON B2B CUSTOMERS

Eva Kurniasih \*)

eva\_kurniasih@yahoo.com

Ari Setiyaningrum \*\*)

ari.setiyaningrum@atmajaya.ac.id

### Abstract

This study aims to examine the factors that determine customer loyalty to business customers. In particular, this study examines the effect of service quality and product quality on customer loyalty directly and indirectly through customer satisfaction mediation. Primary data collection was carried out by surveying through the distribution of questionnaires to 50 companies at oil and gas industry in Indonesia. Sampling was done by purposive sampling technique. The results of hypothesis testing with SEM-PLS indicated that service quality and product quality have a direct effect on customer loyalty. The results of the indirect effect test prove that customer satisfaction partially mediates the effect of service quality and product quality on customer loyalty.

**Keywords:** *customer loyalty, customer satisfaction, product quality, service quality.*

### Introduction

The existence of the Covid-19 pandemic has an impact on decreasing demand and sales for most industries including the oil and gas industry. The implementation of Community Activity Restrictions (PPKM) implemented by the government requires people to limit their

\*) *Alumni of the Master of Management Faculty of Economics and Business, Atma Jaya Catholic University of Indonesia*

\*\*\*) *Faculty of Economics and Business, Atma Jaya Catholic University of Indonesia*

mobility outside the home and this has an impact on reducing the use and consumption of fuel oil for vehicles. In Indonesia, the oil and gas industry experienced a significant decrease in demand during the pandemic, reaching 35% (Widyastuti & Nugroho, 2020; Pradana, Wulandari, Noorwidhi & Sintinjak, 2020). In addition to decreasing the use and consumption of fuel oil, the pandemic has also caused a decrease in prices and a decrease in oil and gas production such as the cessation of upstream activities and a reduction in activities for refining (Widyastuti & Nugroho, 2020). This condition is characterized by delays in projects to carry out exploration or drilling and this creates a gap phenomenon in the form of a problem of decreased demand for and sales of oil drilling pipes from pipe supply companies for oil and natural gas.

Companies engaged in the B2B industry, such as pipeline providers for oil and gas, face more challenges because they have to compete with other companies when there is a decrease in demand from client companies during the pandemic. Companies must always maintain customer loyalty by improving service quality and product quality so that customer satisfaction increases. Companies must also carefully respond to customer needs and desires in an effort to increase customer satisfaction with the products and services provided which in turn can create customer loyalty to the company. Improving service quality and product quality is important, especially for companies engaged in the B2B industry to build company competitiveness by creating customer satisfaction and loyalty.

Good service quality and product quality can increase customer satisfaction and will encourage these customers to be loyal to the product or service used (Triana et al., 2017). Previous studies have found that service quality and product quality are important factors determining customer satisfaction and customer loyalty, especially in the context of a business or B2B customers (Huang, Lee, & Chen, 2017; Lee, Kang, & Kang, 2018). Service quality and product quality are key success factors for the company to increase customer loyalty. If the company is able to provide quality service and product quality that matches or exceeds customer expectations, feelings of customer satisfaction will emerge and then form customer loyalty to the company (Mahsyar & Surapati, 2020). Satisfied customers tend to be loyal by making repeat purchases at a later time (Mahsyar & Surapati, 2020).

A number of previous studies regarding the effect of service quality and product quality on customer loyalty still show a research gap because they found results that were controversial with one another. Studies conducted by Oetarjo and Prastyo (2017), Cakici et

al. (2019), Djumarno et al. (2019), Apriliana and Hidayat (2020), Rua et al. (2020), Rahmawati and Sentana (2021), Jati (2022), and Pramudita et al. (2022) shows that service quality and product quality have a positive influence on customer loyalty. However, a study conducted by Trianah et al. (2017), Haris and Welsa (2018), and Mahsyar and Surapati (2020) found results that service quality and product quality were not proven to have an effect on customer loyalty. In the B2B context, the study conducted by Huang et al. (2017) and Lee et al. (2018) found that service quality affects customer satisfaction which ultimately affects customer loyalty in the form of attitudinal loyalty and behavioral loyalty in the technology service industry in Taiwan and the global service industry in 55 countries. Cater and Cater's (2010) study shows that in small and large-scale manufacturing industries, product quality is found to have a positive effect on customer loyalty and customer loyalty is determined more by emotional factors than rational factors. A meta-analysis study conducted by Pan, Sheng, and Xie (2012) on 139 empirical studies related to the effect of product quality on customer loyalty found that product-related factors including product quality have an influence on customer loyalty but the effect is weaker than customer-related factors such as trust and commitment. Based on the problems in terms of the phenomenon gap and the research gap, this research is intended to complement the results of previous studies on the factors that determine customer loyalty in the context of business customers by testing research models on companies in the oil and gas industry.

## **Literature Review and Hypothesis**

### ***Service Quality***

The service quality model was originally introduced by Parasuraman, Zeithaml, and Berry (1985). Huang et al. (2017) argued that service quality refers to the evaluation and comparison between what customers expect before getting service with the actual service received from the company. Services include convenience, speed, relationships, capabilities, and friendliness provided by the company to meet customer needs and desires (Mahsyar and Surapati, 2020). According to Huang et al. (2017), service quality is related to the efforts made by the company in realizing the needs, desires of buyers, and the accuracy of delivering the product so that it can balance the expectations of buyers. Service quality in general includes aspects of reliability, assurance, tangible, empathy, and responsiveness (Huang et al., 2017). In the B2B context, the main dimensions of service quality include performance,

features, reliability, conformance to specifications, durability, serviceability, aesthetics, and perceived quality (Garvin, 1987). In general, service quality can be interpreted as the efforts made by the company in answering all customer needs and the accuracy of product delivery in order to balance the expectations of buyers.

### ***Product Quality***

Product quality is the ability of a product to carry out its overall functions which include durability, reliability, accuracy, durability, and other product attributes (Kotler and Armstrong, 2018). Product quality also describes a situation where a consumer feels a product is in accordance with what is desired and expected to meet his needs (Oetarjo and Prastyo, 2017). Product quality is an important thing that needs to be considered by the company because product quality can determine the success of the business run by the company. Consumers tend to prefer and choose products that have high quality and therefore to be able to maintain their competitive advantage in the market, companies must strive to differentiate their products from competing products through the quality offered to consumers (Woen and Santoso, 2021). In general, product quality can be interpreted as the ability of a product to carry out its functions in terms of durability, reliability, accuracy, durability, and other product attributes that are considered important by consumers.

### ***Customer Satisfaction***

Customer satisfaction is a very important aspect of building good relationships between customers and companies (Rostiani et al., 2022). Agusti and Verano (2022) state that consumer satisfaction is a form of consumer attitude or behavior towards an item or service that has been consumed or obtained so that it will lead to plans to repurchase and cause a feeling of satisfaction or dissatisfaction. Customer satisfaction is related to the customer's evaluation and emotional assessment of the use of a product or service whether it is in line with expectations or not (Djumarno et al., 2019). In general, customer satisfaction can be interpreted as a customer evaluation of the actual performance of a product whether it is in line with or exceeds what was previously expected or not. Customers are satisfied if the actual performance of the product meets or exceeds expectations and vice versa, customers become dissatisfied if the actual performance of the product does not match what is expected.

## ***Customer Loyalty***

Loyal customers are an important asset for the company and therefore the company must continue to design strategies to continue to retain existing customers. Customer loyalty can be interpreted as the formation of consumer attitudes and behavior toward product use as a result of experience using previous products or services (Woen and Santoso, 2021). Loyal customers tend to no longer consider the factors that determine purchasing choices such as price, quality, and other product attributes because they have instilled in them that the product or service they buy meets expectations and is able to meet their needs. In the B2B context, customer loyalty refers to the commitment and willingness of business customers to continue buying and using the company's products in the long term (Huang et al., 2017; Lee et al., 2018). In general, customer loyalty can be interpreted as the commitment and willingness of customers to continue buying products offered by the company even though there are many other product choices that may have greater value, better quality, and lower prices.

## ***Service Quality and Customer Loyalty***

Service quality is identified as an important factor that determines customer loyalty both to the company and to the products or services offered by the company (Insani and Madiawati, 2020). Service quality that is well-perceived by customers can potentially increase customer loyalty to the company and the products or services it offers. This means that the higher the quality of service provided by the company to customers, the more customer loyalty will increase to the company. However, the results of previous studies that examined the effect of service quality still found different and inconclusive results. On the one hand, the study of Oetarjo and Prastyo (2017), Cakici et al. (2019), Djumarno et al. (2019), Apriliana and Hidayat (2020), Rua et al. (2020), Rahmawati and Sentana (2021), Jati (2022), and Pramudita et al. (2022) proved that service quality affects customer loyalty. On the other hand, the study by Trianah et al. (2017), Haris and Welsa (2018), and Mahsyar and Surapati (2020) found that service quality does not affect customer loyalty. To confirm that there are differences in the findings of these previous studies, this research tests the first hypothesis, namely:

H1: There is a direct effect of service quality on customer loyalty.

### ***Product Quality and Customer Loyalty***

Product quality is the ability of the product to carry out its functions. Product quality is the key to maintaining customer loyalty because customers will continue to buy products that have high quality. Therefore, companies need to maintain the quality of the products they offer to remain consistent for the purpose of making loyal customers. This indicates that the higher the quality of the products offered by the company to customers, the higher the customer loyalty to the company. Previous studies have found a positive effect of product quality on customer loyalty (Oetarjo & Prastyo, 2017; Haris & Welsa, 2018; Rua et al. 2020 ; Apriliana & Hidayat, 2020; Rahmawati & Sentana, 2021; Rostiani et al., 2022; Trianah et al., 2017; Jati et al., 2022). To confirm the findings of these studies, this study tested the second hypothesis, namely:

H2: There is a direct effect of product quality on customer loyalty.

### ***Service Quality and Customer Satisfaction***

Companies must strive to improve the quality of services provided to customers because service quality is an important determining factor for creating customer satisfaction. This indicates that the higher the quality of service provided by the company to customers, the higher customer satisfaction will be. Previous studies still find controversial results related to the effect of service quality on customer satisfaction. Several studies have proven that there is a positive effect of service quality on customer satisfaction (Huang et al.; 2017; Trianah et al., 2017; Lee et al., 2018; Haris & Welsa, 2018; Djumarno et al., 2019; Mahsyar & Surapati, 2020; Apriliana & Hidayat, 2020; Agusti & Verano, 2022; Rostiani et al., 2022; Jati et al., 2022). However, other studies conducted by Setiyaningrum and Hidayat (2016) and Mahsyar and Surapati (2020) found that service quality has no effect on customer satisfaction. To confirm the controversial results of previous studies, this study tested the third hypothesis, namely:

H3: There is an influence of service quality on customer satisfaction.

### ***Product Quality and Customer Satisfaction***

Product quality can determine customer satisfaction because customers generally evaluate products purchased or consumed and whether they are in line with expectations or not. Products that have high quality make customers perceive that the product has performance according to expectations. This indicates that the more customers rate the

product as having high quality, the more customer satisfaction with the product will increase. Previous studies have proven that there is a positive effect of product quality on customer satisfaction (Triannah et al., 2017; Haris & Welsa, 2018; Djumarno et al., 2019; Apriliana & Hidayat, 2020; Mahsyar & Surapati, 2020; Rua et al., 2020; Rahmawati & Sentana, 2021; Agusti & Verano, 2022; Rostiani et al., 2022; Jati et al., 2022). To confirm the results of these studies, this study tested the fourth hypothesis, namely:

H4: There is an influence of product quality on customer satisfaction.

### ***Customer Satisfaction and Customer Loyalty***

Customer satisfaction arises when customers assess product performance that actually meets their expectations. Customers who are satisfied with the product can become loyal customers because they will generally make repurchases and recommend other people to buy the product. This means that the higher the customer's perceived satisfaction with a particular product, the higher the customer's loyalty to that product. The majority of previous studies found that customer satisfaction is proven to positively affect customer loyalty (Huang et al., 2017; Triannah et al., 2017; Haris & Welsa, 2018; Lee et al., 2018; Djumarno et al., 2019; Apriliana & Hidayat, 2020; Mahsyar & Surapati, 2020; Rua et al., 2020; Rahmawati & Sentana, 2021; Rostiani et al., 2022; Jati et al., 2022). To reconfirm the findings of the majority of these studies, this research tests the fifth hypothesis, namely:

H5: There is an influence of customer satisfaction on customer loyalty.

### ***The Role of Mediation of Customer Satisfaction on the Influence of Service Quality on Customer Loyalty***

Customer satisfaction is identified as one of the factors that can strengthen the effect of service quality on customer loyalty. High service quality creates the perception that product performance meets and exceeds customer expectations and ultimately makes customers want to continue buying the product and become loyal. Previous studies have proven that the effect of service quality on customer loyalty is mediated by customer satisfaction (Huang et al., 2017; Triannah et al., 2017; Haris & Welsa, 2018; Djumarno et al., 2019; Apriliana & Hidayat, 2020; Rostiani et al., 2022; Jati et al., 2022). To confirm the results of these studies, this study tested the sixth hypothesis, namely:

H6: There is a mediating role for customer satisfaction in the effect of service quality on customer loyalty.

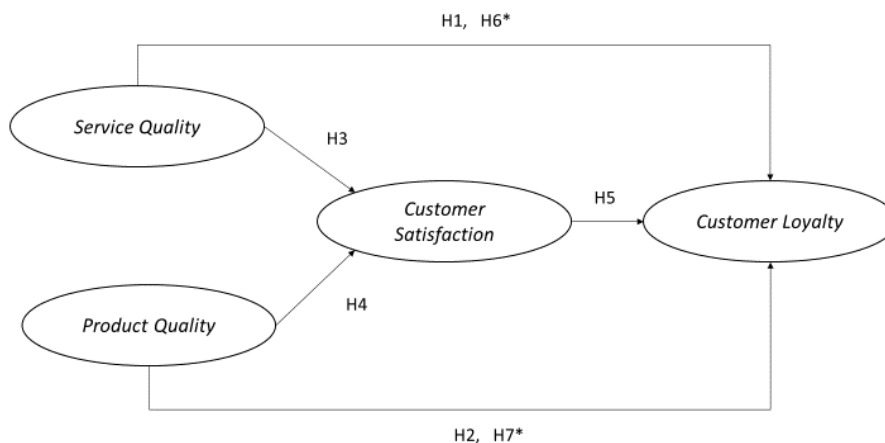
## *The Role of Mediation of Customer Satisfaction on the Influence of Product Quality on Customer Loyalty*

High product quality indicates that the product has good performance and if the company can maintain consistency in product quality and performance, customers will be satisfied and loyal. High product quality forms the perception that the product's actual performance is in line with or exceeds what is expected by the customer and can ultimately increase customer loyalty to the product. Previous studies have proven that the effect of service quality on customer loyalty is mediated by customer satisfaction (Triannah et al., 2017; Haris & Welsa, 2018; Djumarno et al., 2019; Apriliana & Hidayat, 2020; Rua et al., 2020; Rahmawati & Sentana, 2021; Rostiani et al., 2022; Jati et al., 2022). To confirm the findings of this study, this study tested the seventh hypothesis, namely:

H7: There is a mediating role for customer satisfaction in the effect of product quality on customer loyalty.

The research conceptual model tested in this study is shown in Figure 1.

**Figure 1. Research Conceptual Model**



Description: \* denotes mediation testing

### **Research Methods**

This research was carried out during the Covid-19 pandemic so researchers collected primary data through online surveys. The unit of analysis in this study was the company and the questionnaire was sent directly by the researcher via email to 50 companies in the oil and gas industry. Sampling was carried out using a non-probability sampling method through a purposive sampling technique. Indicators for measuring service quality, product quality, customer satisfaction,



and customer loyalty variables are referred to from research by Huang et al. (2017), Cater and Cater (2010), and Lee et al. (2018). The research indicator measurement scale uses a five-point Likert scale with a score range of 1 which indicates a statement that strongly disagrees to a score of 5 which indicates a statement that strongly agrees. Data from 50 companies were then analyzed using SEM-PLS with smartPLS software with the consideration that the SEM-PLS analysis tool could be a solution for research that only has a limited amount of data.

## Research Finding and Discussion

### *Pretest Analysis Results*

The researcher conducted a research instrument trial or pretest to 30 samples before distributing the questionnaires to large samples to ensure that all variable indicators were valid and reliable. Pearson bivariate correlation test with SPSS software and the Cronbach alpha reference value generated from the SPSS output is used to determine whether all variable indicators have been proven valid and reliable. The pretest results for the validity test shown in Table 1 show that all variable indicators have been declared valid with reference to the resulting signature value which is below 0.05 and the resulting Pearson correlation value which is more than 0.361. Table 1 for the reliability test also shows that all variable indicators have been declared reliable with reference to the Cronbach alpha value generated for each variable which is above the value of 0.7.

**Table 1. Pretest Analysis Results (n=30)**

Variable	Indicator	Sig.	Pearson correlation	Cronbach Alpha
<b>Service Quality</b>	The company has a detailed production schedule (SQ1)	0.000	0.666	0.878
	The company always informs the customer of the production schedule (SQ2)	0.000	0.671	
	The production schedule made by the company according to customer demand (SQ3)	0.001	0.577	
	The company makes production reports that accountable to customers (SQ4)	0.000	0.682	
	The company produces customized products according to customer demand (SQ5)	0.000	0.669	
	The company always informs customers if there is a delay in production (SQ6)	0.000	0.851	
	The company has adequate facilities to deliver products to customers (SQ7)	0.000	0.806	

Variable	Indicator	Sig.	Pearson correlation	Cronbach Alpha
	The company has good control to deliver products to customers (SQ8)	0.000	0.785	
	The company has special handling for delays in delivery of products to customers (SQ9)	0.000	0.719	
<b>Product Quality</b>	The company always prioritizes the quality of the products it produces (PQ1)	0.000	0.710	0.899
	The company produces high quality products (PQ2)	0.000	0.822	
	The company routinely controls product quality (PQ3)	0.000	0.893	
	The company tries to minimize product damage (PQ4)	0.000	0.881	
	The company immediately takes action if there is a damaged product (PQ5)	0.000	0.804	
	The company maintains production machines and other supporting facilities at the factory to maintain product quality (PQ6)	0.000	0.710	
<b>Customer Satisfaction</b>	The services provided by the company meet customer expectations (CS1)	0.000	0.750	0.806
	The products produced by the company meet customer expectations (CS2)	0.000	0.782	
	The company handles customer complaints well (CS3)	0.000	0.464	
	The company is cooperative in solving problems with customers (CS4)	0.010	0.774	
	The company provides good service in processing orders from customers (CS5)	0.000	0.622	
	The company provides fast service in processing orders from customers (CS6)	0.000	0.657	
	The company processes order up to the product delivery process satisfactorily (CS7)	0.000	0.710	
<b>Customer Loyalty</b>	Customers will continue to use the company's products (CL1)	0.000	0.776	0.722
	Customers say positive things about the company to other parties (CL2)	0.000	0.751	
	Customers provide recommendations to other parties to buy the products offered by the company (CL3)	0.000	0.750	
	Customers will continue to buy the company's products in the future (CL4)	0.000	0.713	

Source: Processed research data (2022)

## SEM-PLS Analysis Results

### Outer Model Analysis

The outer model analysis includes testing the validity and reliability of the variable

indicators used. Researchers conducted three types of validity testing, namely convergent validity, construct validity, and discriminant validity. The test results of convergent validity are presented in Table 2, the results of testing of construct validity are presented in Table 3, and the results of testing of discriminant validity are presented in Table 4.

**Table 2. Convergent Validity Test Results (n = 50)**

<b>Variable</b>	<b>Indicator</b>	<b>Service Quality</b>	<b>Product Quality</b>	<b>Customer Satisfaction</b>	<b>Customer Loyalty</b>
<i>Service Quality</i>	SQ1	0.810			
	SQ2	0.821			
	SQ3	0.708			
	SQ4	0.772			
	SQ5	0.892			
	SQ6	0.852			
	SQ7	0.896			
	SQ8	0.841			
	SQ9	0.895			
<i>Product Quality</i>	PQ1		0.873		
	PQ2		0.904		
	PQ3		0.839		
	PQ4		0.910		
	PQ5		0.905		
	PQ6		0.875		
<i>Customer Satisfaction</i>	CS1			0.828	
	CS2			0.864	
	CS3			0.865	
	CS4			0.866	
	CS5			0.718	
	CS6			0.908	
	CS7			0.770	
<i>Customer Loyalty</i>	CL1				0.888
	CL2				0.947
	CL3				0.933
	CL4				0.875

Source: Processed research data (2022)

The results of the convergent validity test in Table 2 show that the indicators for all the variables studied (service quality, product quality, customer satisfaction, and customer loyalty) have an outer loading value above 0.50. In addition, Table 2 also shows that the indicators for each variable have been grouped into the same factor and no indicators were found for the variables in the group of other variable factors that are not the variable. Thus it can be concluded that all variable indicators in this study have been declared valid based on

the results of convergent validity testing.

**Table 3. Construct Validity Testing Results (n= 50)**

<b>Variable</b>	<b>Average Variance Extracted (AVE)</b>
<i>Service Quality</i>	0.695
<i>Product Quality</i>	0.783
<i>Customer Satisfaction</i>	0.695
<i>Customer Loyalty</i>	0.830

Source: Processed research data (2022)

Based on the results of the construct validity test in Table 3, the service quality, product quality, customer satisfaction, and customer loyalty variables all have an Average Variance Extracted (AVE) value above 0.50. Therefore, it can be stated that all variable indicators in this study have been declared valid based on the results of construct validity testing.

**Table 4. Discriminant Validity Test Results (n= 50)**

	<i>Service Quality</i>	<i>Product Quality</i>	<i>Customer Satisfaction</i>	<i>Customer Loyalty</i>
SQ1	0.810	0.698	0.692	0.729
SQ2	0.821	0.723	0.672	0.728
SQ3	0.708	0.613	0.579	0.640
SQ4	0.772	0.751	0.769	0.762
SQ5	0.892	0.797	0.815	0.856
SQ6	0.852	0.727	0.702	0.752
SQ7	0.896	0.812	0.834	0.847
SQ8	0.841	0.785	0.707	0.778
SQ9	0.895	0.774	0.759	0.774
PQ1	0.818	0.873	0.829	0.888
PQ2	0.876	0.904	0.829	0.933
PQ3	0.683	0.839	0.736	0.757
PQ4	0.776	0.910	0.732	0.808
PQ5	0.809	0.905	0.760	0.812
PQ6	0.764	0.875	0.774	0.765
CS1	0.745	0.774	0.828	0.787
CS2	0.718	0.756	0.864	0.772
CS3	0.785	0.821	0.865	0.821
CS4	0.769	0.732	0.866	0.788
CS5	0.608	0.575	0.718	0.634
CS6	0.755	0.763	0.908	0.783
CS7	0.708	0.686	0.770	0.774
CL1	0.818	0.873	0.829	0.888
CL2	0.849	0.868	0.831	0.947
CL3	0.876	0.904	0.829	0.933
CL4	0.803	0.772	0.872	0.875

Source: Processed research data (2022)

The results of the discriminant validity test in Table 4 show that the indicators for the variables service quality, product quality, customer satisfaction, and customer loyalty have a cross-loading value above 0.70. Based on these results, it is concluded that all variable indicators in this study have been declared valid based on the results of discriminant validity testing.

After testing the validity using convergent validity, construct validity, and discriminant validity, reliability testing is then carried out. Table 5 presents the results of reliability testing with Cronbach alpha values and composite reliability values.

**Table 5. Reliability Test Results (n= 50)**

<b>Variable</b>	<b>Cronbach's Alpha</b>	<b>Composite Reliability</b>
<i>Service Quality</i>	0.944	0.953
<i>Product Quality</i>	0.944	0.956
<i>Customer Satisfaction</i>	0.926	0.941
<i>Customer Loyalty</i>	0.931	0.951

Source: Processed research data (2022)

The reliability test results presented in Table 5 show that the variables service quality, product quality, customer satisfaction, and customer loyalty all have a Cronbach alpha value and a composite reliability value above 0.7. Therefore, it can be concluded that all variable indicators in this study have been declared reliable.

### ***Inner Model Analysis***

Multicollinearity testing needs to be done to ensure that no correlation is found between exogenous variables in the regression model. The results of the multicollinearity test in this study are presented in Table 6.

**Table 6. Multicollinearity Test Results (n= 50)**

<b>Variable</b>	<b>Indicator Code</b>	<b>VIF</b>
<i>Service Quality</i>	SQ1	4.526
	SQ2	3.163
	SQ3	1.900
	SQ4	2.994
	SQ5	4.808
	SQ6	3.921
	SQ7	4.631
	SQ8	4.753
	SQ9	5.225
<i>Product Quality</i>	PQ1	3.402
	PQ2	4.155

Variable	Indicator Code	VIF
<i>Customer Satisfaction</i>	PQ3	2.557
	PQ4	4.895
	PQ5	5.289
	PQ6	3.201
	CS1	2.708
	CS2	3.299
	CS3	4.378
<i>Customer Loyalty</i>	CS4	3.789
	CS5	2.012
	CS6	4.685
	CS7	2.415
	CL1	3.019
	CL2	5.667
	CL3	4.671
	CL4	2.992

Source: Processed research data (2022)

The multicollinearity test results presented in Table 6 show that all indicators of the research variables have a Variance Inflation Factor (VIF) value of less than 5.00. These results indicate the absence of multicollinearity in the research model test. After confirming that there are no multicollinearity problems in the model, then an analysis of the coefficient of determination, testing the goodness of fit model, and a t-test is performed. The results of the analysis of the coefficient of determination are presented in Table 7, the results of the goodness of fit model test are presented in Table 8, and the results of the t test and the results of hypothesis testing are presented in Table 9.

**Table 7. Determination Coefficient Test Results**

Variable	<i>R-Square</i>	<i>R-Square Adjusted</i>
<i>Customer Satisfaction</i>	0.814	0.806
<i>Customer Loyalty</i>	0.933	0.928

Source: Processed research data (2022)

Based on the Adjusted R-Square values presented in Table 7, service quality and product quality are able to explain customer satisfaction by 80.6%, and the remaining 19.4% is influenced by other variables not examined in this study. Table 7 also shows that service quality and product quality are able to explain customer loyalty by 92.8% and the remaining 7.2% is influenced by other variables not examined in this study.

**Table 8. Goodness of Fit Model Test Results**

	<b>Saturated Model</b>	<b>Estimated Model</b>
SRMR	0.062	0.062
rms Theta	0.094	0.094

Source: Processed research data (2022)

Table 8 shows that the research model being tested can be declared feasible because the resulting SRMR value is 0.062 and this value is still below the value of 0.10. In addition, the resulting Root Mean Square (RMS) Theta value is 0.094 and this value is still below the value of 0.102.

**Table 9. T Test Results and Hypothesis Test Results**

	<b>Hypotesis</b>	<b>T Statistics</b>	<b>Significance</b>	<b>Information</b>
H1	There is a direct effect of service quality on customer loyalty	2.816	0.005	Hypothesis accepted
H2	There is a direct effect of product quality on customer loyalty	4.782	0.000	Hypothesis accepted
H3	There is an influence of service quality on customer satisfaction	3.038	0.003	Hypothesis accepted
H4	There is an influence of product quality on customer satisfaction	3.549	0.000	Hypothesis accepted
H5	There is an influence of customer satisfaction on customer loyalty	3.461	0.001	Hypothesis accepted ma
H6	There is a mediating role for customer satisfaction in the effect of service quality on customer loyalty	2.372	0.018	Hypothesis accepted
H7	There is a mediating role for customer satisfaction in the effect of product quality on customer loyalty	2.303	0.022	Hypothesis accepted

Source: Processed research data (2022)

Based on the results of the hypothesis testing presented in Table 9, it was found that all the hypotheses tested in this study were accepted. If analyzed based on the statistical t value, product quality has a greater influence on customer satisfaction and customer loyalty compared to service quality. The results of the mediation test also show that the mediation that occurs is partial mediation because the results of the SEM-PLS test show a significant value for the mediating variable customer satisfaction and the direct effect of exogenous variables (service quality and product quality) on endogenous variables (customer loyalty).

## Discussion

Based on the results of hypothesis testing using SEM-PLS analysis, this study found

several important findings related to the determinants of customer loyalty to business customers. First, hypothesis 1 which tests whether service quality has a direct effect on customer loyalty is accepted in this study. These findings indicate that service quality is a factor to be considered by business customers in deciding whether to continue to buy products offered by the company in the future or not. The higher the quality of service provided by the company, the higher the customer loyalty to the company. This means that customer loyalty to companies serving the business market can be increased by consistently providing the best quality service to customers. Customers who are served very well tend to be loyal by making repeated purchases in the long term and providing recommendations to other parties to buy the products offered by the company. In the B2B context, good service quality will greatly determine customer loyalty because business customers have characteristics that are more relationship-oriented and have long-term commitments in making purchasing decisions. Good relationships with customers can be built by companies by providing good service quality and according to customer needs. Good product quality without being supported by good service quality can make customers disloyal and eventually switch to competitors who provide better service quality. On the one hand, the results of this study support the research of Oetarjo and Prasetyo (2017), Cakici et al. (2019), Djumarno et al. (2019), Apriliana and Hidayat (2020), Rua et al. (2020), Rahmawati and Sentana (2021), Jati (2022), and Pramudita et al. (2022) who found that service quality affects customer loyalty. But on the other hand, these findings contradict research Trianah et al. (2017), Haris and Welsa (2018), and Mahsyar and Surapati (2020) which show that service quality does not affect customer loyalty.

Second, hypothesis 2 which tests whether product quality has a direct effect on customer loyalty is accepted in this study. This research proves that product quality is an important determining factor in the formation of customer loyalty to business customers. Customers generally prefer to continue buying products from companies that offer better quality. Based on the research results, product quality was found to have a greater influence on customer loyalty than service quality. The higher the quality of the products offered by the company, the higher the customer loyalty to the company. This indicates that companies serving the business market need to maintain and improve product quality continuously so that customers are willing and committed to repurchasing the products offered in the future. In the B2B context, in addition to service quality, product quality can also determine



customer loyalty because business customers make product purchase decisions in large quantities, and later the purchased products will be used for business purposes such as resale or use in the production process. The findings of this study are in line with the findings of the study Oetarjo and Prastyo (2017), Haris and Welsa (2018), Rua et al. (2020), Apriliana and Hidayat (2020), Rahmawati and Sentana (2021), Rostiani et al. (2022), Trianah et al. (2017), Jati et al. (2022) which shows that product quality has a positive effect on customer loyalty.

Third, hypothesis 3 which tests whether service quality has an effect on customer satisfaction is accepted in this study. These findings indicate that for business customers, service quality can determine the level of customer satisfaction both with the company and the products it offers because good service quality is an added value provided by the company. The higher the quality of service provided by the company, the higher the customer satisfaction with the company and the products it offers. Customers will be satisfied if the quality of service provided by the company meets or exceeds customer expectations. This means that companies serving the business market need to focus on continuing to provide good and maximum service quality so that customers are satisfied. In the B2B context, good service quality plays an important role in building good relationships with customers and increasing customer satisfaction. Good product quality must also be supported by good service quality so that customer satisfaction can increase. The results of this study on the one hand confirm the results of the study Huang et al. (2017), Trianah et al. (2017), Lee et al. (2018), Haris and Welsa (2018), Djumarno et al. (2019), Mahsyar and Surapati (2020), Apriliana and Hidayat (2020), Agusti and Verano (2022), Rostiani et al. (2022), and Jati et al. (2022) which proves the positive influence of service quality on customer satisfaction. However, on the other hand, the results of this study are different from other studies Setiyaningrum and Hidayat (2016) and Mahsyar and Surapati (2020) who found that service quality has no effect on customer satisfaction.

Fourth, hypothesis 4 which tests whether product quality has an effect on customer satisfaction is accepted in this study. This study found that for business customers, product quality will greatly determine customer satisfaction. Good product quality will make customers satisfied and decide to continue buying the same product in the future, while poor product quality will make customers disappointed and decide not to buy the same product again in the future. The higher the quality of the products offered by the company, the higher customer satisfaction. Customers will compare the actual performance of the product to

whether it is as expected or not. If the actual performance of the product meets or exceeds what is expected, the customer will be satisfied. High product quality signifies good product performance and is in accordance with customer expectations therefore good product quality will encourage positive customer evaluations of both the company and the products it offers. This indicates that companies serving the business market need to set high product quality standards and maintain the consistency of product quality offered for the purpose of increasing customer satisfaction. In the B2B context, product quality is a major consideration for business customers when purchasing products because products are purchased for business purposes. The findings of this study are in line with previous research which proves that product quality has a positive influence on customer satisfaction (Triannah et al., 2017; Haris & Welsa, 2018; Djumarno et al., 2019; Apriliana & Hidayat, 2020; Mahsyar & Surapati, 2020; Rua et al., 2020; Rahmawati & Sentana, 2021; Agusti & Verano, 2022; Rostiani et al., 2022; Jati et al., 2022).

Fifth, hypothesis 5 which tests whether customer satisfaction has an effect on customer loyalty is accepted in this study. This study found that customer satisfaction was identified as a factor that could potentially drive customer loyalty, especially for business customers. Satisfied customers generally have the willingness to repurchase in the future and recommend the company and the products it offers to other parties. The higher the customer satisfaction, the higher the customer loyalty. This means that companies serving the business market need to increase customer satisfaction by providing high-quality products and providing good service so that satisfied customers will become loyal. In the B2B context, customer satisfaction is a key factor in forming customer loyalty because satisfied customers will have the commitment and willingness to continue buying the same product in the future. These findings reinforce the findings of previous research which proves that customer satisfaction has a positive effect on customer loyalty (Huang et al., 2017; Triannah et al., 2017; Haris & Welsa, 2018; Lee et al., 2018; Djumarno et al., 2019; Apriliana & Hidayat, 2020; Mahsyar & Surapati, 2020; Rua et al., 2020; Rahmawati & Sentana, 2021; Rostiani et al., 2022; Jati et al., 2022).

Sixth, hypothesis 6 which tests whether customer satisfaction mediates the effect of service quality on customer loyalty is accepted in this study. This study found that good service quality is proven to increase customer satisfaction and ultimately increase customer loyalty to the company. This indicates that companies serving the business market need to

provide good and consistent service quality for the purpose of making customers satisfied and deciding to continue buying the products offered by the company. In the B2B context, service quality is a key factor that determines customer satisfaction and customer loyalty, and therefore companies must focus on providing consistently good service quality to customers. Poor service quality can make customers dissatisfied and choose to buy products from competitors. The results of this study confirm the results of previous studies which prove that customer satisfaction mediates the effect of service quality on customer loyalty (Huang et al., 2017; Trianah et al. 2017; Haris & Welsa, 2018; Djumarno et al., 2019; Apriliana & Hidayat, 2020; Rostiani et al., 2022; Jati et al., 2022).

Seventh, hypothesis 7 which tests whether customer satisfaction mediates the effect of product quality on customer loyalty is accepted in this study. This study found that good product quality is proven to increase customer satisfaction and ultimately increase customer loyalty to the company. This indicates that companies serving the business market need to maintain and improve the quality of the products offered so that customers are satisfied and committed to repurchasing products in the future. In the B2B context, product quality is the main factor that determines customer satisfaction and customer loyalty, and therefore companies must focus on maintaining and improving product quality according to predetermined standards. Poor product quality will make customers disappointed and ultimately decide to switch to competitors. These findings support the findings of previous studies which also prove that customer satisfaction mediates the effect of service quality on customer loyalty (Trianah et al., 2017; Haris & Welsa, 2018; Djumarno et al., 2019; Apriliana & Hidayat, 2020; Rua et al., 2020; Rahmawati & Sentana, 2021; Rostiani et al., 2022; Jati et al., 2022).

## **Conclusions**

The results of this study indicate that in the B2B context in the oil and gas industry, service quality and product quality have a direct influence on customer loyalty. Product quality was found to have a greater influence on customer satisfaction and customer loyalty than service quality. The mediation test results prove that customer satisfaction partially mediates the effect of service quality and product quality on customer loyalty.

Suggestions that can be recommended by researchers based on research results related to the importance of service quality, companies should consistently provide the best quality

service to customers because good product quality without being supported by good service quality can make customers dissatisfied and disloyal so they eventually switch to competitors that provide better service quality. The recommendations given are related to the importance of product quality, companies should maintain and improve product quality continuously so that customers are willing and committed to repurchasing the products offered in the future. This research has several limitations and therefore the researcher recommends that future research can refine the results of this study by increasing the number of research samples, using the probability sampling method in drawing samples to increase the accuracy of research results, testing research models for other industrial contexts, examining service quality as a construct. multidimensional, and examine other variables not examined in this study such as customer trust, customer perceived value, and corporate image.

### References

- Agusti, I. S., & Verano, Y. (2022). Pengaruh Kualitas Pelayanan dan Kualitas Produk Terhadap Kepuasan Konsumen (KFC Arjuna Medan Perjuangan). *Niagawan*, 11(1), 37-42.
- Apriliana, V. & Hidayat, W. (2020). Pengaruh Kualitas Produk dan Kualitas Pelayanan terhadap Loyalitas Konsumen dengan Kepuasan Konsumen sebagai Variabel Intervening (Studi pada Konsumen Waroeng Spesial Sambal cabang Banyumanik). *Jurnal Ilmu Administrasi Bisnis*, 9(4), 571–581.
- Cakici, A. C., Akgunduz, Y., & Yildirim, O. (2018). The impact of Perceived Price Justice and Satisfaction on Loyalty: The Mediating Effect of Revisit Intention. *Tourism Review*, 74(3), 443-462.
- Cater, T., & Cater, B. (2010). Product and Relationship Quality Influence on Customer Commitment and Loyalty in B2B Manufacturing Relationships. *Jurnal Industrial Marketing Management*, 39(8), 1321–1333.
- Djumarno, D., Tanando, M., & Permana, D. (2019). Effect of Service Quality, Brand Image and Product Quality On Customer Loyalty through Customer Satisfaction On Fast Food Restaurant. *International Journal of Business Marketing and Management*, 4(8), 40-50.
- Garvin, G. A. (1987). Competing on Eight Dimensions of Quality. *Harvard Business Review*, November-Desember 1987.
- Haris, D. & Welsa, H. (2018). Kualitas Dan Desain Produk Dalam Meningkatkan Kepuasan dan Loyalitas Konsumen (Studi Kasus Baju Dagadu Yogyakarta). *Upajiwa Dewantara*, 2(2), 125–139.

- Huang, P., Lee, B., & Chen, C. (2017). The Influence of Service Quality on Customer Satisfaction and Loyalty in B2B Technology Service Industry. *Total Quality Management & Business Excellence*, 30(13), 1–17.
- Insani, N. & Madiawati, P. (2020). Pengaruh Kualitas Pelayanan, Harga dan Promosi terhadap Loyalitas Pelanggan GoFood di Kota Bandung. *Jurnal Manajemen Ekonomi & Akuntansi*, 4(3), 112–122.
- Jati, P., Chasanah, U., & Hidayat, A. (2022). Pengaruh Kualitas Layanan dan Kualitas Produk Terhadap Loyalitas dan Kepuasan Konsumen Pada Agrowisata Pulesari, Sleman, DIY. *Kajian Bisnis Sekolah Tinggi Ilmu Ekonomi Widya Wiwaha*, 30(1), 1–22.
- Kotler, P., & Armstrong, G. (2018). *Principles of Marketing*. 17 Edition. London: Pearson Education.
- Lee, M., Kang, M., & Kang, J. (2018). Cultural Influences on B2B Service Quality-Satisfaction-Loyalty. *Service Industries Journal*, 39(6), 1-21.
- Mahsyar, S. & Surapati, U. (2020). Effect of Service Quality and Product Quality on Customer Satisfaction and Loyalty. *International Journal of Economics, Business and Accounting Research*, 4(1), 204–211.
- Oetarjo, M. & Prastyo, H. (2017). Pengaruh Kualitas Produk Dan Kualitas Layanan Terhadap Loyalitas Pelanggan PT. Roman Ceramic International di Mojokerto. *Jurnal Bisnis, Manajemen & Perbankan*, 3(1), 1–84.
- Pan, Y., Sheng, S., & Xie, F. T. (2012). Antecedents of customer loyalty: An empirical synthesis and re-examination. *Journal of retailing and consumer services*, 19(1), 150-158.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A Conceptual Model of Service Quality and its Implication for Future Research. *Journal of Marketing*, 49, 41–50.
- Pradana, A., Wulandari, A. D., Noorwidhi, B. F., & Sitinjak, F. (2020). Dampak Pandemi Covid-19 terhadap Ekonomi Nasional dan Perpajakan Di Sektor Minyak dan Gas Bumi. *Syntax Idea*, 2(12), 998-1012.
- Pramudita, D., Gunawan, N., Ningsih, M., & Adilah, R. (2022). Determinasi Kepuasan Pelanggan dan Loyalitas Pelanggan: Harga dan Kualitas Produk (Literature Review Manajemen Pemasaran). *Jurnal Manajemen Pendidikan Dan Ilmu Sosial*, 3(1), 424–436.
- Rahmawati, R. & Sentana, E. (2021). The Effect of Product Quality on Customer Loyalty with the Mediation of Customer Satisfaction. *International Journal of Managerial Studies and Research*, 9(2), 22–32.
- Rostiani, A., Lestari, R., & Nurwulandari, A. (2022). Pengaruh Kualitas Produk, Kualitas Pelayanan dan Pemasaran Digital Terhadap Loyalitas Pelanggan Melalui Kepuasan Pelanggan di Apartemen Kemang Grup PT Pudjiadi Prestige Tbk Jakarta. *Jurnal Ilmiah Akuntansi Dan Keuangan*, 5(2), 1086–1100.

- Rua, S., Saldanha, E., & Amaral, A. (2020). Examining the Relationships between Product Quality, Customer Satisfaction and Loyalty in the Bamboo Institute, Dili, Timor-Leste. *Timor-Leste Journal of Business and Management*, 2(1), 33–44.
- Setiyaningrum, A., & Hidayat, H. (2016). Service Quality dan Kepuasan Konsumen: Studi Empiris dan Implikasinya pada Toko Online. *MIX: Jurnal Ilmiah Manajemen*, VI(2), 247-260.
- Triannah, L., Pranitasari, D., & Marichs, S. Z. (2017). Pengaruh Kualitas Produk Dan Kualitas Pelayanan Terhadap Kepuasan Pelanggan dan Loyalitas Pelanggan (Studi Kasus Pada Pelanggan D'besto Mangun Jaya 2 Tambun Selatan). *Jurnal STEI Ekonomi*, 26(1), 105-22.
- Widaystuti, N. L. & Nugroho, H. (2020). Dampak Covid-19 terhadap Industri Minyak dan Gas Bumi: Rekomendasi Kebijakan untuk Indonesia. *The Indonesian Journal of Development Planning*, IV (2), 166-176.
- Woen, N. G., & Santoso, S. (2021). Pengaruh Kualitas Layanan, Kualitas Produk, Promosi, dan Harga Normal terhadap Kepuasan dan Loyalitas Konsumen. *Jurnal Maksipreneur: Manajemen, Koperasi, dan Entrepreneurship*, 10(2), 146-163.