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# The Influence of Product Variation and Product Quality on Consumer Loyalty with Consumer Satisfaction as an Intervening Variable in Hand-drawn Batik

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Abstract: Article on the influence of product variation and product quality on consumer loyalty with consumer satisfaction as an intervening variable in hand-drawn batik. The purpose of writing this article is to determine the influence of product variation and product quality on consumer satisfaction and consumer loyalty in hand-drawn batik. The research method used is quantitative descriptive. The analysis tool used in this study is SEM SmartPLS 4.1.0.0 The sampling technique uses simple random sampling. The data used in this study are primary data. The population in this study was 214 respondents, with a research sample of 100 respondents, obtained from questionnaires distributed and filled out by consumers who use hand-drawn batik. The tests conducted in this study are Validity Test, Reliability Test, Inner Model, Outer Model and Hypothesis Test. The results of this article are: 1) Product variety has a positive and significant effect on customer satisfaction; 2) Product quality has a positive and significant effect on customer satisfaction; 3) Product variety has no effect and is not significant on customer loyalty; 4) Product quality has no effect and is not significant on customer loyalty; 5) Customer satisfaction has a positive and significant effect on customer loyalty; 6) Product variety has no effect and is not significant on customer loyalty through customer satisfaction; and 7) Product quality has no effect and is not significant on customer loyalty through customer satisfaction.

Keyword: Consumer Loyalty, Consumer Satisfaction, Product Variety, Product Quality

#### **INTRODUCTION**

Batik is an Indonesian cultural heritage that is rich in historical, artistic, and traditional values. Batik, an old textile art style, has become a symbol of Indonesian cultural identity and has gained international recognition for its beauty. The process of making batik involves dyeing cloth with wax as a barrier, which produces certain patterns and motifs. In 2009, UNESCO recognized Indonesian batik as an Intangible Cultural Heritage of Humanity, indicating the

importance of the value and meaning of batik globally. This has not only raised global awareness of the uniqueness of Indonesian batik, but has also motivated efforts to preserve and develop the art of batik both locally and internationally. Batik continues to develop in the current era, with advances in design and use in various fields including fashion and interior design. Many local and international fashion designers and artists have incorporated batik motifs into their designs, raising awareness of the beauty and complexity of the batik-making process. However, along with the development and progress of batik in terms of design and use, the number of batik craftsmen has increased. Where there is a decline in craftsmen who still produce batik.

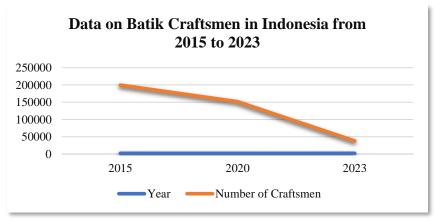


Figure 1. Batik Craftsmen Data 2015 to 2023 Source: APPBI Indonesian Batik Craftsmen and Entrepreneurs Association

Figure 1 shows data related to the number of batik craftsmen and entrepreneurs obtained from the Association of Batik Craftsmen and Entrepreneurs in Indonesia (APBBI). Where from 2015 to 2023 the number of batik craftsmen and entrepreneurs in Indonesia has continued to decline. In 2015, there were 199,444 batik craftsmen and entrepreneurs in Indonesia, in 2020 there were 151,565, and in 2023 there were 37,914 batik craftsmen and entrepreneurs in Indonesia. Based on these data, the phenomenon of the decreasing number of batik craftsmen and entrepreneurs in Indonesia each year can be caused by many factors, one of which is the lack of diverse batik product variations, this is relevant to previous research conducted by (Prabasiwi et al., 2021).

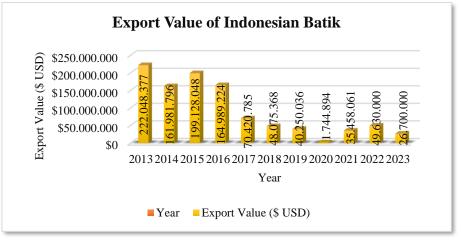


Figure 2. Data on Indonesian Batik Export Value 2013 - 2023 Source: Pusdatin Kemenperin

Based on Figure 2. Data on the value of Indonesian batik exports for the period 2013 to 2023 (10 years) shows that the highest export value occurred in 2015 at US\$199,128,048, and the lowest export value occurred in 2020 at US\$1,744,894. In 2020, the export value of Indonesian batik experienced a massive decline, this could be due to several factors, one of which was the Covid-19 virus pandemic, which spread to almost all countries in the world, so that export activities were severely restricted and disrupted. However, after the Covid-19 pandemic ended, which was marked by the enactment of Presidential Decree Number 17 of 2023 concerning the end of the Corona Virus Pandemic (Covid-19) status in Indonesia, the growth in the value of batik exports in 2023 has not been able to reach the export value in 2015.

Based on the background of the problem above, the following problem formulations are obtained: 1) Does product variation have a positive and significant effect on consumer satisfaction? 2) Does product quality have a positive and significant effect on consumer satisfaction?; 3) Does product variation have a positive and significant effect on consumer loyalty?; 4) Does product quality have a positive and significant effect on consumer loyalty?; 5) Does consumer satisfaction have a positive and significant effect on consumer loyalty?; 6) Does product variation have a positive and significant effect on consumer loyalty through consumer satisfaction?; and 7) Does product quality have a positive and significant effect on consumer loyalty through consumer satisfaction?

# **Research Hypothesis**

Based on the formulation of the problem that has been determined above, the hypothesis in this study is as follows:

- 1) H1 = Product variation is suspected to have a positive and significant effect on consumer satisfaction.
- 2) H2 = Product quality is suspected to have a positive and significant effect on consumer satisfaction.
- 3) H3 = Product variation is suspected to have a positive and significant effect on consumer loyalty.
- 4) H4 = Product quality is suspected to have a positive and significant effect on consumer loyalty.
- 5) H5 = Consumer satisfaction is suspected to have a positive and significant effect on consumer loyalty.
- 6) H6 = Product variation is suspected to have a positive and significant effect on consumer loyalty through consumer satisfaction.
- 7) H7 = Product quality is suspected to have a positive and significant effect on consumer loyalty through consumer satisfaction.

# **METHOD**

The research method used in this study is Quantitative Descriptive. Where the variables of consumer satisfaction and consumer loyalty are dependent variables, and the variables of product variation and product quality are independent variables. The analysis tool used in this study is SEM SmartPLS 4.1.0.0 The sampling technique uses simple random sampling. The data used in this study are primary data of 100 respondents, obtained from questionnaires distributed and filled out by consumers of hand-drawn batik users. The tests carried out in this study are Validity Test, Reliability Test, Inner Model, Outer Model and Hypothesis Test, (Ali, H., & Limakrisna, 2013).

## **RESULTS AND DISCUSSION Result**

#### **Consumer Loyalty**

Consumer loyalty refers to a customer's willingness to repurchase a particular product or service on a regular and consistent basis, especially when other options are available (Widjanarko et al., 2023). This loyalty is more than just the frequency of purchases; loyalty also involves an emotional component where consumers have trust, satisfaction, and a positive relationship with a brand or product (Bali, 2022).

Indicators or dimensions contained in the consumer loyalty variable include: 1) Repeat Purchase: Measures how often consumers buy a company's products or services; 2) Recommendation: Measures how much consumers are willing to recommend a product or service to others; 3) Relationship Duration: Measures how long customers have used a company's products or services; and 4) Competitor Resistance: Measures consumers' reluctance to switch to competitors' products or services, even if there are better offers (Apriliana & Hidayat, 2020).

## **Consumer Satisfaction**

Customer satisfaction is a measure of how well a company's products or services meet or exceed its customers' expectations (Navanti et al., 2023). This happiness comes from the consumer's interaction with the product or service, which is determined by product quality, price, customer service, and overall experience (Navanti et al., 2020). Satisfied clients tend to be more loyal and give positive recommendations to others (Saputra & Sumantyo, 2023).

Indicators or dimensions contained in the consumer satisfaction variable include: 1) Conformity to Expectations: Measuring how well a product or service meets or exceeds consumer expectations; 2) Purchase Experience: Assessing the entire consumer experience during the purchase transaction; 3) Service Quality: Measuring consumer satisfaction with the services offered, such as responsiveness, dependability, and empathy; and 4) Value for Money: Measuring consumer assessment of whether the product or service is worth the money spent (Hamdan et al., 2023).

# **Product Variety**

Product diversity refers to the number of variations, models, or versions of a product a company offers to meet the varying demands and preferences of its customers (Henriawan et al., 2023). Companies that offer a variety of products can reach a wider market and meet the specific desires of different consumer segments. Product variety includes differences in size, color, features, price, and other characteristics that allow customers to choose the best product for their needs (Hadita, 2018).

Indicators or dimensions contained in the product variation variable include: 1) Product Choice: Measuring the extent to which the organization offers a variety of product choices that vary in type, model, or characteristics; 2) Suitability to Needs: Determining whether the various products offered meet the needs and preferences of various consumer segments; 3) Product Innovation: Measuring the frequency and quality of the company's product innovation; and 4) Product Availability: Measuring how easily consumers can obtain various product choices (Saputra et al., 2023).

# **Product Quality**

Product quality refers to how well a product meets or exceeds consumer expectations. Product quality includes durability, reliability, performance, attractiveness, and compliance with established standards (Jumawan et al., 2023). High-quality goods are usually resistant to damage, provide consistent performance, and meet or exceed consumer expectations. Product quality is influenced by the raw materials used, the production process, the technology used, and quality control during the manufacturing process (Hadita et al., 2020).

Indicators or dimensions contained in the product quality variable include: 1) Performance: Determines how well the product performs as promised; 2) Durability: Determines the product's resistance to damage or wear over time; 3) Reliability: Measures the product's consistency in delivering the expected performance without problems; and 4) Features: Measures the completeness and quality of product features (Mahaputra & Saputra, 2021).

## Validity Test

# 1. Convergent Validity Test

If the correlation coefficient > 1 or = 1, then the validity measure is considered high. In table 1, below are the results of the outer model convergent validity test.

$\begin{array}{ c c c c c c c } \hline Indicator & Product & Quality & Satisfaction & Customer & Customer & Customer & Satisfaction & Satisfac$		Table 1	1. Convergent	: Validity Analy	sis (Outer L	oadings)	
x         Product Variety         x         Product Quality           PV1         0.753	Indicator	Product	Product			Customer	Customer
Variety         Quality           PV1         0.753           PV2         0.772           PV3         0.701           PV4         0.771           PV5         0.761           PV7         0.724           PQ1         0.731           PQ2         0.754           PQ3         0.824           PQ4         0.778           PQ5         0.756           PQ6         0.749           CS1         0.733           CS2         0.832           CS3         0.735           CS4         0.829           CS5         0.789           CL1         0.833           CL2         0.835           CL3         0.786           CL4         0.753		Variety	Quality	Satisfaction	Loyalty	Satisfaction	Satisfaction
$\begin{array}{c c c c c c c c c c c c c c c c c c c $							x Product
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$						Variety	Quality
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		<mark>0.753</mark>					
PV4       0.771         PV5       0.761         PV6       0.847         PV7       0.724         PQ1       0.731         PQ2       0.754         PQ3       0.824         PQ4       0.778         PQ5       0.756         PQ6       0.749         CS1       0.733         CS2       0.832         CS3       0.735         CS4       0.829         CS5       0.789         CL1       0.833         CL2       0.835         CL3       0.786         CL4       0.753							
PV5       0.761         PV6       0.847         PV7       0.724         PQ1       0.731         PQ2       0.754         PQ3       0.824         PQ4       0.778         PQ5       0.756         PQ6       0.749         CS1       0.733         CS2       0.832         CS3       0.735         CS4       0.829         CS5       0.789         CL1       0.833         CL2       0.835         CL3       0.786         CL4       0.753	PV3	<mark>0.701</mark>					
PV6       0.847         PV7       0.724         PQ1       0.731         PQ2       0.754         PQ3       0.824         PQ4       0.778         PQ5       0.756         PQ6       0.749         CS1       0.733         CS2       0.832         CS3       0.735         CS4       0.829         CS5       0.789         CL1       0.833         CL2       0.835         CL3       0.786         CL4       0.753	PV4	<mark>0.771</mark>					
PV7       0.724         PQ1       0.731         PQ2       0.754         PQ3       0.824         PQ4       0.778         PQ5       0.756         PQ6       0.749         CS1       0.733         CS2       0.832         CS3       0.735         CS4       0.829         CS5       0.789         CL1       0.833         CL2       0.835         CL3       0.786         CL4       0.753	PV5	<mark>0.761</mark>					
PQ1       0.731         PQ2       0.754         PQ3       0.824         PQ4       0.778         PQ5       0.756         PQ6       0.749         CS1       0.733         CS2       0.832         CS3       0.735         CS4       0.829         CS5       0.789         CL1       0.833         CL2       0.835         CL3       0.786         CL4       0.753	PV6	<mark>0.847</mark>					
PQ2       0.754         PQ3       0.824         PQ4       0.778         PQ5       0.756         PQ6       0.749         CS1       0.733         CS2       0.832         CS3       0.735         CS4       0.829         CS5       0.789         CL1       0.833         CL2       0.835         CL3       0.786         CL4       0.753	PV7	<mark>0.724</mark>					
PQ3       0.824         PQ4       0.778         PQ5       0.756         PQ6       0.749         CS1       0.733         CS2       0.832         CS3       0.735         CS4       0.829         CS5       0.789         CL1       0.833         CL2       0.835         CL3       0.753         CS x PV       1.000	PQ1		<mark>0.731</mark>				
PQ4         0.778           PQ5         0.756           PQ6         0.749           CS1         0.733           CS2         0.832           CS3         0.735           CS4         0.829           CS5         0.789           CL1         0.833           CL2         0.835           CL3         0.786           CL4         0.753	PQ2		<mark>0.754</mark>				
PQ5       0.756         PQ6       0.749         CS1       0.733         CS2       0.832         CS3       0.735         CS4       0.829         CS5       0.789         CL1       0.833         CL2       0.835         CL3       0.786         CL4       0.753         CS x PV       1.000	PQ3		<mark>0.824</mark>				
PQ6         0.749           CS1         0.733           CS2         0.832           CS3         0.735           CS4         0.829           CS5         0.789           CL1         0.833           CL2         0.835           CL3         0.786           CL4         0.753           CS x PV         1.000	PQ4		<mark>0.778</mark>				
CS1       0.733         CS2       0.832         CS3       0.735         CS4       0.829         CS5       0.789         CL1       0.833         CL2       0.835         CL3       0.786         CL4       0.753         CS x PV       1.000	PQ5		<mark>0.756</mark>				
CS2       0.832         CS3       0.735         CS4       0.829         CS5       0.789         CL1       0.833         CL2       0.835         CL3       0.786         CL4       0.753         CS x PV       1.000	PQ6		<mark>0.749</mark>				
CS3       0.735         CS4       0.829         CS5       0.789         CL1       0.833         CL2       0.835         CL3       0.786         CL4       0.753         CS x PV       1.000	CS1			<mark>0.733</mark>			
CS4       0.829         CS5       0.789         CL1       0.833         CL2       0.835         CL3       0.786         CL4       0.753         CS x PV       1.000	CS2			<mark>0.832</mark>			
CS5         0.789           CL1         0.833           CL2         0.835           CL3         0.786           CL4         0.753           CS x PV         1.000	CS3			<mark>0.735</mark>			
CL1       0.833         CL2       0.835         CL3       0.786         CL4       0.753         CS x PV       1.000	CS4			<mark>0.829</mark>			
CL2       0.835         CL3       0.786         CL4       0.753         CS x PV       1.000	CS5			<mark>0.789</mark>			
CL3         0.786           CL4         0.753           CS x PV         1.000	CL1				<mark>0.833</mark>		
CL4         0.753           CS x PV         1.000	CL2				<mark>0.835</mark>		
CS x PV 1.000	CL3				<mark>0.786</mark>		
	CL4				<mark>0.753</mark>		
CS x PQ 1.000	CS x PV					<mark>1.000</mark>	
	CS x PQ						<mark>1.000</mark>

Table 1. Convergent	t Validity Analysi	s (Outer Logdings)
	, vanuity manysi	s (Outor Loaumes)

Source: SmartPLS 4.1.0.0 Output

Based on the output in table 1 above, the four variables used in this study can be declared valid, because each indicator in each variable obtained a loading factor value > 0.7, so it can be stated that the indicators for each variable meet the requirements for research.

#### 2. Discriminant Validity Test

If the AVE value shows an AVE value greater than (>) 0.5, then it is said to meet the requirements. Different construct measures should not be highly correlated.

	Table 2. Discriminant	Validity Analys	sis (Cross Loading)
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	Table		e vanaley i mai		Louanns)	
Indicator	Product	Product	Customer	Customer	Customer	Customer
	Variety	Quality	Satisfaction	Loyalty	Satisfaction	Satisfaction

					x Product Variety	x Product Ouality
PV1	0.753	0.464	0.587	0.361	-0.241	-0.281
PV2	0.772	0.426	0.555	0.390	-0.400	-0.325
PV3	0.701	0.393	0.508	0.361	-0.168	-0.195
PV4	0.771	0.496	0.662	0.510	-0.437	-0.394
PV5	0.724	0.531	0.588	0.484	-0.389	-0.382
PV6	0.847	0.532	0.634	0.336	-0.308	-0.267
PV7	<mark>0.724</mark>	0.357	0.459	0.271	-0.206	-0.183
PQ1	0.332	<mark>0.731</mark>	0.540	0.538	-0.405	-0.434
PQ2	0.486	<mark>0.754</mark>	0.604	0.548	-0.504	-0.564
PQ3	0.590	<mark>0.824</mark>	0.737	0.604	-0.575	-0.652
PQ4	0.435	<mark>0.778</mark>	0.578	0.581	-0.452	-0.664
PQ5	0.391	<mark>0.756</mark>	0.572	0.466	-0.387	-0.549
PQ6	0.529	<mark>0.749</mark>	0.618	0.483	-0.406	-0.498
CS1	0.575	0.500	<mark>0.733</mark>	0.401	-0.507	-0.384
CS2	0.611	0.665	<mark>0.832</mark>	0.684	-0.717	-0.630
CS3	0.733	0.637	<mark>0.735</mark>	0.467	-0.349	-0.334
CS4	0.551	0.701	<mark>0.829</mark>	0.729	-0.696	-0.671
CS5	0.506	0.606	<mark>0.789</mark>	0.525	-0.647	-0.513
CL1	0.414	0.620	0.604	<mark>0.833</mark>	-0.514	-0.579
CL2	0.462	0.665	0.640	<mark>0.835</mark>	-0.583	-0.643
CL3	0.289	0.465	0.543	<mark>0.786</mark>	-0.506	-0.467
CL4	0.500	0.480	0.548	<mark>0.753</mark>	-0.428	-0.454
CS x PV	-0.415	-0.600	-0.751	-0.637	<b>1.000</b>	0.820
CS x PQ	-0.391	-0.736	-0.658	-0.676	0.820	1.000

Source: SmartPLS 4.1.0.0 Output

Based on table 2 above, the loading factor value obtained on Product Variety (PV1) is 0.753 which is greater (>) than the loading factor value of other constructs, namely Product Quality (0.464), Customer Satisfaction (0.587), and Customer Loyalty (0.361). Based on the results of the discriminant validity test in table 2 above, it can be seen that all latent variables have good discriminant validity. And it can be concluded that the discriminant validity test has been met and can be declared valid.

#### 3. Average Variance Extracted (AVE) Test

Latent variables can explain on average more than half of the variance of their indicators.

Table 3. Outer Model Analysis (AVE)					
Variable Average Variance Extracted (AVI					
Product Variety	0.581				
Product Quality	0.586				
Customer Satisfaction	0.616				
Customer Loyalty	0.644				

Source: SmartPLS 4.1.0.0 Output

Based on table 3 above, the AVE value of the product variety variable is 0.581, product quality 0.586, customer satisfaction 0.616, and customer loyalty 0.644. This shows that all variables in this study obtained a value of more than (>) 0.5, meaning that each variable has good discriminant validity.

#### **Reliability Test**

1. Composite Reliability Test

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This reliability test is intended to measure how relevant and consistent a respondent is in answering or filling out the questionnaire, in relation to the questionnaire provided.

Joins	on uce Kenability and	valuity Analysis (Composite	i nu
	Variable	<b>Composite Reliability</b>	
	Product Variety	0.906	
	Product Quality	0.895	
	Customer Satisfaction	0.889	
	Customer Loyalty	0.878	
	Source: Smar	tPLS 4.1.0.0 Output	

 Table 4. Construct Reliability and Validity Analysis (Composite Reliability)

Based on the test results in table 4 above, the composite reliability value of the product variety variable is 0.906, the composite reliability value of product quality is 0.895, the composite reliability value of customer satisfaction is 0.889, and the composite reliability value of customer loyalty is 0.878, which shows that the value of the four variables is greater (>) than 0.7, meaning that all variables are declared reliable.

## 2. Cronbach's Alpha Test

Reliability testing with composite reliability can be strengthened with Cronbach's alpha. The variable assessment criteria if the Cronbach's alpha value for each variable is > 0.7, then it can be declared reliable.

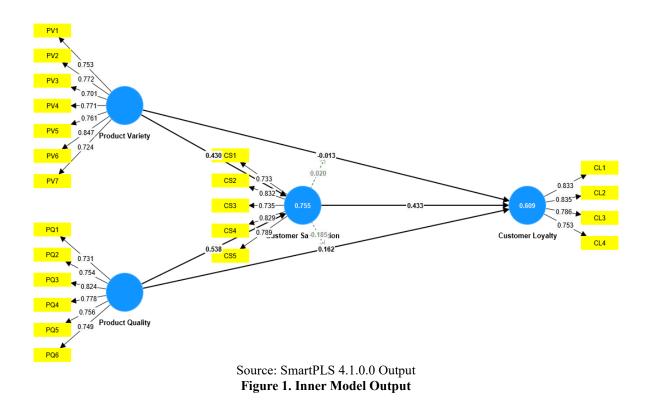
#### Table 5. Construct Reliability and Validity Analysis (Cronbach's Alpha)

Variable	Cronbach's Alpha			
Product Variety	0.880			
Product Quality	0.859			
<b>Customer Satisfaction</b>	0.844			
Customer Loyalty	0.816			
Source: SmartPLS 4.1.0.0 Output				

Based on the test results in table 5 above, the Cronbach's alpha value for the product variety variable is 0.880, the Cronbach's alpha value for product quality is 0.859, the Cronbach's alpha value for customer satisfaction is 0.844, and the Cronbach's alpha value for customer loyalty is 0.816, this shows that all variables are greater than 0.7, so all variables are declared reliable.

#### **Structural Model Analysis (Inner Model)**

The purpose of testing this structural model is to see if there is a relationship or influence between constructs, significant values and R Square.



In this structural model analysis, the aim is to determine the magnitude of the influence or relationship of the independent variable and the dependent variable. The measurement standard used is 0.67 which is stated as a strong influence, 0.33 which is stated as a moderate influence, and 0.19 which is stated as a weak influence. The following are the results of R-Square SmartPLS 4.0:

Table 6. Structural Model Analysis Output (R-Square)						
Variable R-Square R-Square Adjusted						
Customer Satisfaction (Z) 0.755 0.750						
Customer Loyalty (Y) 0.609 0.588						
Source: SmartPLS 4.1.0.0 Output						

Based on the R-square data in table 6 above, the R Square value is 0.609 and with the Adjusted R Square value of 0.588, then the entire exogenous construct (product variety and product quality) simultaneously affects customer loyalty by 0.588 (58.8%) (moderate influence).

The measurement of the two R Square values of the simultaneous influence of product variety, product quality and customer loyalty on customer satisfaction is 0.755 with an Adjusted R Square value of 0.750. So, it can be concluded that the entire exogenous construct (product variety, product quality and customer satisfaction) simultaneously affects customer loyalty by 0.750 or 75% (strong influence).

# Hypothesis Testing Results (Significance Test)

Hypothesis testing using output path coefficients and indirect effects.

Table 7. Bootstrapping Analysis (Path Coefficients)						
Effects	Original	Sample	Standard	<b>T</b> Statistics	Р	
	Sample (O)	Mean (M)	Deviation	( O/STDEV )	Values	
			(STDEV)			

Product Variety $(X1) \rightarrow$ Customer Satisfaction (Z)	0.430	0.431	0.072	5.981	0.000
Product Quality $(X1) \rightarrow$ Customer Satisfaction (Z)	0.538	0.539	0.072	7.430	0.000
Product Variety $(X1) \rightarrow$ Customer Loyalty $(Y)$	-0.013	-0.014	0.124	0.102	0.918
Product Quality $(X2) \rightarrow$ Customer Loyalty $(Y)$	0.162	0.173	0.151	1.072	0.284
Customer Satisfaction (Z) $\rightarrow$ Customer Loyalty (Y)	0.433	0.413	0.214	2.025	0.043
Customer Satisfaction (Z) x Product Variety $(X1) \rightarrow$ Customer Loyalty $(Y)$	0.020	0.025	0.185	0.109	0.913
Customer Satisfaction (Z) x Product Quality (X1) $\rightarrow$	-0.185	-0.193	0.114	1.630	0.103
Customer Loyalty (Y)	~ ~				

Source: S	SmartPLS	4.1.0.0	Output
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The purpose of this bootstrapping test is to minimize the abnormality in the research data. Here are the results of the bootstrapping test:

#### 1. The Effect of Product Variety on Customer Satisfaction

The results of the first hypothesis test show the effect of product variety on customer satisfaction, as seen in table 7. The results of the hypothesis test analysis obtained a value (O) where the path coefficient is 0.430 with a T statistic value of 5.981 and a P Values value of 0.000. This value is greater (>) than the t table value (1.983) and the P Values value is smaller (<) 0.05, meaning it has a significant effect.

So product quality has a positive and significant effect on customer satisfaction on Batik Tulis products **(H1 Accepted)**.

#### 2. The Effect of Product Quality on Customer Satisfaction

The results of the second hypothesis test show the effect of product quality on customer satisfaction, as seen in table 7. The results of the hypothesis test analysis obtained a value (O) where the path coefficient is 0.538 with a T statistic value of 7.430 and a P Values value of 0.000. The value is greater (>) than the t table value (1.983) and the P Values value is smaller (<) 0.05, meaning it has a significant effect.

So product quality has a positive and significant effect on customer satisfaction on Batik Tulis products **(H2 Accepted)**.

# 3. The Effect of Product Variety on Customer Loyalty

The results of the third hypothesis test show the effect of product variety on customer loyalty, as seen in table 7. The results of the hypothesis test analysis obtained a value (O) where the path coefficient is -0.013 with a T statistic value of 0.102 and a P Values value of 0.918. This value is smaller (<) than the t table value (1.983) and the P Values value is greater (>) 0.05, meaning it has no effect and is not significant.

So product variety has no effect and is not significant on customer loyalty in Batik Tulis products (H3 Rejected).

# 4. The Effect of Product Quality on Customer Loyalty

The results of the fourth hypothesis test show the effect of product quality on customer loyalty, as seen in table 7. The results of the hypothesis test analysis obtained a value (O) where the path coefficient is 0.162 with a T statistic value of 1.072 and a P Values value of 0.284. The

value is smaller (<) than the t table value (1.983) and the P Values value is greater (>) 0.05, meaning it has no effect and is not significant.

So product quality has no effect and is not significant on customer loyalty in Batik Tulis products (H4 Rejected).

## 5. The Influence of Customer Satisfaction on Customer Loyalty

The results of the fifth hypothesis test show the influence of customer satisfaction on customer loyalty, as seen in table 7. The results of the hypothesis test analysis obtained a value (O) where the path coefficient is 0.433 with a T statistic value of 2.025 and a P Values value of 0.043. This value is greater (>) than the t table value (1.983) and the P Values value is smaller (<) 0.05, meaning it has a significant effect.

So customer satisfaction has a positive and significant effect on customer loyalty in Batik Tulis products (H5 Accepted).

## 6. The Effect of Product Variety on Customer Loyalty through Customer Satisfaction

The results of the sixth hypothesis test show the effect of product variety on customer loyalty through customer satisfaction, as seen in table 7. The results of the hypothesis test analysis obtained a value (O) where the path coefficient is 0.020 with a T statistic value of 0.109 and a P Values value of 0.913. This value is smaller (<) than the t table value (1.983) and the P Values value is greater (>) 0.05, meaning it has no effect and is not significant.

So product variety has no effect and is not significant on customer loyalty through customer satisfaction on Batik Tulis products (H6 Rejected).

## 7. The Effect of Product Quality on Customer Loyalty through Customer Satisfaction

The results of the seventh hypothesis test show the effect of product quality on customer loyalty through customer satisfaction, as seen in table 7. The results of the hypothesis test analysis obtained a value (O) where the path coefficient is -0.185 with a T statistic value of 1.635 and a P Values value of 0.103. The value is smaller (<) than the t table value (1.983) and the P Values value is greater (>) 0.05, meaning it has no effect and is not significant.

So product quality has no effect and is not significant on customer loyalty through customer satisfaction on Batik Tulis products (H7 Rejected).

#### Discussion

#### 1. The Impact of Product Variety on Customer Satisfaction

Product variety has a substantial impact on consumer satisfaction because it encompasses important factors such as product selection, suitability to demand, product innovation, and product availability. First, a diverse product range allows customers to find products that best suit their unique preferences and needs. When companies provide a variety of product types, models, and features, consumers feel more in control of choosing the right product, thus better meeting their expectations. For example, an electronics store that offers a variety of smartphone models from several companies with varying features will satisfy customers more than a store with fewer choices.

Another key consideration is suitability for a specific purpose. Products that are manufactured and marketed to meet specific consumer demands tend to receive good feedback and enhance the buying experience. For example, a company that knows that clients in tropical climates want clothing made of lightweight, quick-drying fabrics will serve those customers better by providing products that meet those requirements. This not only increases customer satisfaction but also builds a long-term relationship between consumers and brands.

Product innovation is essential to attracting consumers and keeping them satisfied. Continuous innovation not only produces exciting new products, but also improves the quality

and functionality of existing products. When businesses continually introduce relevant innovations, customers see the added value and perceive the company as an industry leader. Beneficial developments, such as new smartphone features or performance improvements on electronic devices, can improve perceived service quality because consumers are confident that they are receiving the latest technology. Product availability is a critical component in ensuring that customers are happy with their shopping experience. Products that are easily accessible and widely available reduce consumer frustration and the amount of time spent searching for what they want. For example, products that are offered in many physical locations as well as online platforms allow customers to shop whenever and wherever they want. This directly increases value for money, as consumers value not only the goods but also the ease and efficiency in obtaining them. Overall, product diversity has a direct impact on aspects of consumer satisfaction such as compliance with expectations, shopping experience, service quality, and value for money. Companies that offer a diverse and relevant product selection can better meet and exceed consumer expectations, create a pleasant shopping experience, provide high-quality service, and provide higher value to customers. All of this leads to increased levels of consumer satisfaction, which can increase customer loyalty and company profits.

## 3. The Impact of Product Quality on Customer Satisfaction

Product quality, including performance, durability, reliability, and features, has a substantial impact on customer satisfaction. High product performance ensures that the product functions as advertised and effectively meets consumer needs. When a product performs well, customers are happy because the product meets or exceeds their expectations. For example, a smartphone with high speed and responsiveness will provide a great user experience while meeting consumer expectations for modern technology.

Product durability is also important for customer happiness. Durable goods provide long-term value and reduce the frequency of repurchases, thereby increasing value for money. Consumers who believe that their products are durable will be happier because their investment in the product yields long-term rewards. For example, household appliances that can last for years without major problems will increase consumer satisfaction by reducing repair and replacement costs.

Product reliability ensures that the product performs consistently and without frequent breakdowns or difficulties. Reliable goods enhance the shopping experience because customers do not have to worry about inconsistent product performance or frequent breakdowns. For example, a car that needs little repair will make customers happy because they can rely on it for their daily needs. Product features play a significant role in determining consumer happiness. Products with relevant and innovative features provide exceptional value to consumers. These qualities, such as modern technology or ergonomic design, enhance consumers' perceptions of service quality because they believe they are getting greater value from the product. For example, a laptop with advanced security measures and a long-lasting battery will be more appealing to customers than a computer with fewer features. Overall, product quality, including performance, durability, reliability, and features, has a significant impact on many dimensions of consumer delight. Companies that ensure high-quality products in all of these areas can meet and exceed consumer expectations, deliver a positive shopping experience, provide exceptional service, and offer value for money, resulting in increased customer loyalty and satisfaction.

#### The Impact of Product Variety on Customer Loyalty

Product variety, such as product choice, suitability, innovation, and availability, does not necessarily have a substantial impact on consumer loyalty, which includes repeat purchases, recommendations, relationship duration, and resistance to competition. One reason is that the emotional and holistic experience aspects including consumer encounters with the brand often have a greater influence on consumer loyalty than the variety of products offered. Loyal customers usually have a strong emotional attachment to the brand, which is based on consistent positive experiences, excellent customer service, and a belief in consistent product quality. For example, a client may remain loyal to a particular brand because of the great aftersales service experience rather than the variety of product choices offered.

Furthermore, excessive product variety without an emphasis on quality and relevance can lead to confusion and dissatisfaction, resulting in decreased consumer loyalty. Consumers may be disappointed if the variety of product choices is not complemented by improvements in quality, or if product innovations fail to provide the practical benefits they are looking for. For example, if a clothing company offers excessive styles and patterns while neglecting the quality and comfort of the material, customers may be reluctant to repurchase or recommend the brand to others.

Product variety does not only determine the length of the relationship or resistance to competition. Long-term loyalty is often built on consistent, pleasant experiences and emotional ties to a brand. Customers who receive good customer service and believe that the brand understands their needs tend to be more loyal and resist competition. For example, bank customers who receive personalized customer service and attention tend to be more loyal, even if competing banks provide more financial goods. So, while product variety can be attractive, consumer loyalty is driven more by the quality of the relationship formed with the brand, consistent positive experiences, and belief in the value and quality provided. Without these essential elements, product variety will not be enough to maintain or grow consumer loyalty over the long term.

# The Impact of Product Quality on Customer Loyalty

While product quality, including performance, durability, reliability, and features, is generally considered important, there are some situations in which these factors may not be as influential in consumer loyalty, such as repeat purchases, recommendations, relationship duration, and rejection of competitors. One reason is that emotional aspects and the overall brand experience, rather than technical product features, often influence consumer loyalty. Consumers, for example, may remain loyal to a brand despite shortcomings in certain aspects of product quality if they believe the company values and cares about them through exceptional customer service and a pleasant shopping experience.

Emotional qualities, such as a sense of connection to the brand and frequent positive experiences, may be more important in driving loyalty than physical product attributes. For example, shoppers may be more loyal to a fashion brand not because of the quality or durability of its products, but because of an emotional connection to the brand, a unique shopping experience, or a great marketing campaign that fosters a sense of identity and community. Furthermore, in some businesses, consumers may place less importance on the reliability and durability of a product. For example, in the rapidly changing technology industry, shoppers may be more interested in the latest developments and advanced capabilities than in long-term dependability. They may be more likely to switch to another brand that offers advanced technology, even if they are satisfied with the performance and durability of their current product. Other elements that influence repeat purchases, recommendations, and relationship duration include price, convenience, and after-sales support. Consumers may continue to purchase products from a particular brand because of competitive prices and favorable loyalty programs, even if there are minor flaws in product quality. Likewise, they may promote a brand based on positive customer service experiences or the company's reputation in their city, rather than just product quality. So, while product quality is important, consumer loyalty is more complex and nuanced. Without an emotional component, a strong connection to the brand, and regular enjoyable experiences, product quality alone may not be enough to ensure long-term consumer loyalty.

## The Impact of Customer Satisfaction on Customer Loyalty

Consumer satisfaction, such as conformity to expectations, purchase experience, service quality, and value for money, has a substantial impact on consumer loyalty, which includes repeat purchases, recommendations, relationship longevity, and resistance to competition. When a product or service meets or exceeds customers' expectations, they are more likely to make future purchases. For example, if consumers purchase an electronic gadget that functions as advertised and has the features they expected, they are more likely to return to the same brand in the future when they need a comparable product.

A positive purchase experience encourages customers to recommend the brand to others. Word-of-mouth recommendations are heavily influenced by the overall purchase experience, which includes everything from ease of purchase to prompt customer service. Consumers who perceive the purchase process to be simple and enjoyable are more likely to recommend the product or service to friends and family. Furthermore, high-quality service, such as efficient and prompt customer assistance, fosters consumer-brand relationships. Highquality service fosters positive perceptions and trust, which are critical to developing long-term relationships. Consumers who feel valued and treated well by a company are more likely to maintain their relationship for a longer period of time, indicating a longer relationship.

Good value for money is also an important component in determining loyalty. Customers who believe they are receiving a high-quality product or service for the price they pay are more satisfied and more likely to stick with the brand. They are confident that they are not only making the right financial choice, but also receiving good value for money. This increases competitive resilience because consumers are less likely to be tempted by offers from other brands if they believe they are getting the best value from their current brand.

Overall, excellent customer satisfaction provides a strong foundation for client loyalty. Companies can encourage customers to continue purchasing, refer others, maintain long-term relationships, and remain loyal despite competing offers by meeting or exceeding their expectations, providing a positive shopping experience, providing high-quality service, and offering good value for money.

#### The Effect of Product Variety on Customer Loyalty through Customer Satisfaction

Product variety, which includes product choice, suitability to needs, product innovation, and product availability, may not have a direct impact on consumer loyalty, which includes repeat purchases, recommendations, relationship duration, and rejection of competitors. Consumer satisfaction, which includes conformity to expectations, purchase experience, service quality, and value for money. One explanation is that the overall experience and core quality have a greater influence on consumer satisfaction than the number of accessible product choices. For example, even if a company provides a variety of product choices, if these products fail to meet consumer expectations in terms of performance and durability, consumer satisfaction will be low.

Consumer happiness is more closely related to how well the product matches their basic expectations, the quality of the service offered, and the perceived value of the product. A wide variety of products without sufficient quality or relevance to consumer demands may not enhance the shopping experience or provide perceived value. For example, shoppers may find a wide variety of products, but if they believe the products lack the quality or after-sales support they need, their happiness will be low. Furthermore, consumer loyalty, such as repeat purchases and recommendations, is driven by emotional factors and long-term relationships with a company, which are not always reinforced by product variety. A consumer, for example, may

remain loyal to a particular brand because of consistently great customer service experiences, even though the brand's product selection is limited. Long-term loyalty is often built on trust and consistent great experiences, not just a range of product offerings. So, while product variety may initially appeal to consumers, underlying criteria such as product quality, the buying experience, and customer service are more important in creating consumer loyalty. Without the right quality and relevance, product variety may not be enough to generate the deep satisfaction needed to sustain strong, long-term consumer loyalty.

#### The Influence of Product Quality on Customer Loyalty through Customer Satisfaction

Product quality, which includes performance, durability, reliability, and features, may not always have a direct impact on consumer loyalty, which includes repeat purchases, recommendations, relationship duration, and rejection of competitors, as measured by consumer satisfaction, which includes conformity to expectations, purchase experience, service quality, and value for money. One of the main reasons is that, although product quality is very important, other aspects such as emotional attachment to the brand, service experience, and overall brand impression can have a higher impact on consumer loyalty. For example, a highperformance and durable product may not be enough to drive loyalty if customers are dissatisfied with other areas such as customer service or the purchasing process.

Conformity to expectations and purchase experience are two consumer satisfaction factors that are often influenced by total contact with the brand rather than the technical features of the product. For example, even if a product has complex features, if the purchasing procedure or after-sales service is weak, customers may be dissatisfied overall. An unpleasant experience in one aspect can affect overall enjoyment, even if the product is of high quality. Service quality and value for money are also important factors in customer satisfaction. Consumers may believe they are getting good value for their money if the product is of high quality, but if customer service is inadequate or the price is reasonable, their satisfaction may decline. For example, a high-performance technology product may not be enough to sustain loyalty if customers believe customer support is difficult to reach or unhelpful when problems arise. Consequently, while product quality, such as performance, durability, reliability, and features, is important, it does not guarantee consumer loyalty unless it is supported by high levels of consumer delight. Consumer delight is driven by a comprehensive experience that spans multiple contacts with a brand; without high levels of delight, product quality may not be enough to drive repeat purchases, recommendations, long-term partnerships, and resistance to competitors. Consumer loyalty is more likely to be achieved by combining product quality with a consistently delightful experience across all brand interactions.

# CONCLUSION

Based on the formulation of the problem, results and discussion above, the conclusion of this study is:

- 1. Product variety has a positive and significant effect on customer satisfaction;
- 2. Product quality has a positive and significant effect on customer satisfaction;
- 3. Product variety has no effect and is not significant on customer loyalty;
- 4. Product quality has no effect and is not significant on customer loyalty;
- 5. Customer satisfaction has a positive and significant effect on customer loyalty;
- 6. Product variety has no effect and is not significant on customer loyalty through customer satisfaction;
- 7. Product quality has no effect and is not significant on customer loyalty through customer satisfaction.

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