



The Role of Customer Satisfaction in Mediates the Influence of Product Quality on Consumer Loyalty

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ABSTRACT

Building material production firms in Indonesia have a unique opportunity as a result of the increase in national growth, especially in Denpasar City. Customers are more picky about what they buy because there are so many different cement brands available. Companies must cultivate loyalty among their current clientele in addition to focusing on attracting new ones if they want to stay competitive. This study's goal is to use customer happiness as a mediating variable to explain how product quality affects customer loyalty. Respondents who have made purchases from PT Semen Indonesia in Denpasar City were the subjects of the study. Purposive sampling was used to choose the 110 respondents that made up the research sample. and distributed using Google Forms based on specific criteria. This study was measured using 11 indicators, and the analysis tool used was SSPS (Statistical Product and Service Solutions). The research findings indicate that Every theory was approved. Customer loyalty and happiness are positively and significantly impacted by product quality. Additionally, customer satisfaction has a favorable and noteworthy impact. as a mediator of product quality on consumer loyalty. The implementation of this study suggests that in creating customer loyalty, the management of PT Semen Indonesia is expected to optimize the quality of their products and customer satisfaction

INTRODUCTION

The use of cement for building residential houses and new infrastructure has expanded rapidly. The highest growth in cement sales in January 2024 was recorded in Bali and Nusa Tenggara, at 35.2% year-on-year (compared to -4.97% year-on-year in January 2023) (Daily Economic Review, 2024). The competition in the national cement industry is becoming increasingly intense, with the emergence of new cement businesses in the country. Simultaneously, with the growing number of cement producers, Indonesia is currently facing an overproduction capacity condition or cement oversupply. Consumer loyalty is the only factor that can sustain the sales and income of construction material stores in the long term.

Research by Pemayun and Kusumadewi (2024) shows that customer loyalty is positively and significantly impacted by both product quality and customer satisfaction; that satisfaction is a partial mediating variable for the relationship between product quality and customer loyalty for Gildak products in Denpasar City; and that product quality has a positive and significant impact on satisfaction. Customers are more satisfied when a business produces high-quality products, and this might lead to a rise in consumer loyalty (Alfareza & Sukaatmadja, 2024). Additionally, this study seeks to determine how customer pleasure mediates the impact of product quality to create loyal consumers for Semen Indonesia's products.

Table 1. Housing Construction Development in Indonesia 2020 to 2022

Year	(In Units)		
	2020	2021	2022
Rumah Umum	119.612	131.186	156.941
Rumah Susun	48.792	49.615	56.639
BSPS	241.687	231.298	127.183
Rumah Khusus	23.960	25.535	28.846

Source : Infrastructure Statistics Information PUPR, Prihapsari et al., 2022

Based on statistical information from the Ministry of Housing and Public Works (hereafter referred to as PUPR) in 2022, there was a significant surge in the number of commercial public housing units. In 2021, the number increased by 11,574 units compared to the previous year, and in 2022, it rose by an additional 25,755 units compared to the previous year. This growth was driven by the emergence of many new housing developments and the opening of new habitable land. (Infrastructure Statistics Information PUPR, Prihapsari et al., 2022)

Table 2. The Percentage of House Building in Bali According to "How to Obtain It" 2019 to 2022

Bali Province	Buy from developers		Buy from non-developers		Build it themselves		Others (Inheritance, Grant, etc.)	
	2019	2022	2019	2022	2019	2022	2019	2022
Urban Area	6,87	7,32	3,03	6,80	83,67	76,27	6,44	9,61
Rural Area	1,56	0,42	0,87	2,21	90,50	90,10	7,07	7,27

Source: Housing and Settlement Statistics, Sari et al., 2023

The percentage of households owning their residential buildings in urban areas and rural areas shows that the "Build Your Own" option is more dominant compared to other options in the "Acquisition Method" category. This indicates that new construction projects outnumber inherited or gifted housing year by year, creating a significant demand for construction materials, particularly cement (Sari et al., 2023).

LITERATURE REVIEW

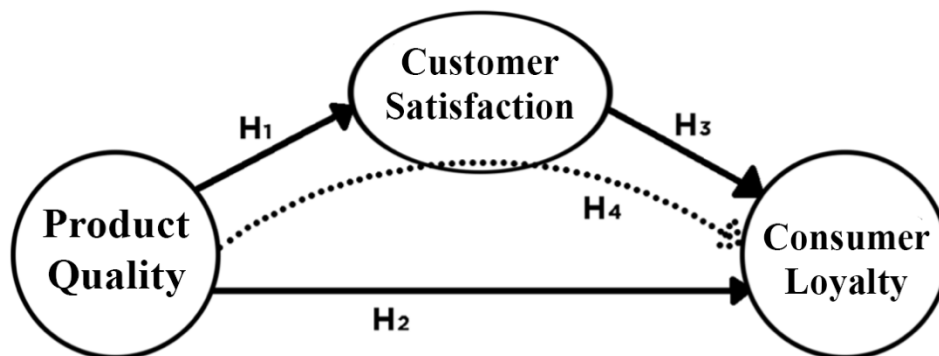


Figure 1. Conceptual Framework

Exogenous variables are independent variables that can have an impact on the dependent (endogenous) variables, either directly or indirectly. The external variable in this study is the product quality, denoted by (X). Dependent variables that are impacted by independent (exogenous) variables are known as endogenous variables. In this study, customer satisfaction, represented as (M), and customer loyalty, represented as (Y), are considered endogenous variables.

Customer satisfaction refers to the feeling consumers experience when they receive the best value in terms of product quality and price. High levels of satisfaction often lead to customer loyalty. According to Putri and Rastini (2022), there are three indicators of satisfaction, modified for this study: satisfaction with various product types, satisfaction with services provided as expected, and satisfaction with the decision to purchase a product.

Product quality reflects a product's ability to meet its intended benefits and functions. If a product fails to meet the desired quality, customers may feel disappointed and may even switch to competing products or brands. According to Tjiptono (2008:25) in Amaranggana and Rahanatha (2018), product quality encompasses all dimensions of product offerings that deliver benefits to customers. The key indicators determining product quality are performance, durability, product variety, and perceived quality.

Customer loyalty is a critical factor for a company's sustainable competitive advantage. It represents customers' efforts to remain loyal due to strong awareness, perceived quality, satisfaction, and pride in a product, often accompanied by repeat purchases. Based on Pemayun and Kusumadewi (2024), there are four indicators of customer loyalty: repeat purchases, commitment to specific products, resistance to switching to competitor products, and recommendations to others.

Hypotheses

H1: Customer happiness is positively and significantly impacted by product quality.

Whether or whether a product meets the expectations of its customers depends on its quality. Customers are satisfied if their expectations are fulfilled; if not, they are not (FoEh & Anggoro, 2022). Customer satisfaction and product quality are directly positively and significantly correlated, according to studies by Aulia & Furyanah (2022), Pattilasa & Dwiridotjahtjono (2023), Chairani et al. (2022), Sudarsono et al. (2022), and Nuryati et al. (2023). On the other hand, Maimunah (2019) discovered a weak and unimportant correlation.

H2: Customer loyalty is positively and significantly impacted by product quality.

Good product quality positively influences customer loyalty because it serves as a key consideration for customer decisions (Munfaqiroh et al., 2022). This aligns with findings from Meilisa & Artina (2023), Riyadi & Erdiansyah (2022), FoEh & Anggoro (2022), and Syufrian et al. (2022). However, Tahuman (2016) and Kusuma (2018) found a positive but insignificant relationship, while Putri and Rastini (2022) revealed that poor product quality failed to foster loyalty due to unmet customer expectations.

H3: Customer loyalty is positively and significantly impacted by customer satisfaction.

Research by Alfareza & Sukaatmadja (2024) suggests that customer satisfaction fosters harmonious relationships between companies and customers, leading to repeat purchases and loyalty. Satisfied customers are likely to make recurring purchases and remain uninterested in competing products (Munfaqiroh et al., 2022). This relationship has been supported by Maheswari & Aksari (2019), Alam & Sarpan (2023), Nugeroho et al. (2023), and Munfaqiroh et al. (2022). However, Sektiyaningsih et al. (2019) reported a negative and insignificant impact of satisfaction on loyalty.

H4: Customer satisfaction plays a positive and significant role in mediating the effect of product quality on customer loyalty.

Customer satisfaction is a key factor that can drive loyalty toward a product. High-quality and satisfying products positively influence loyalty (Putri & Rastini, 2022). Fornell, cited in Halim (2021) and Meilisa & Artina (2023), asserts that product quality affects customer loyalty by fostering satisfaction with the company's product quality. Studies by Alam & Sarpan (2023), Widyaningrum (2020), Pratiwi et al. (2022), and Trisno et al. (2022) support the significant mediating role of customer satisfaction between product quality and customer loyalty.

METHODOLOGY

This study uses an associative technique and a causal associative research design. The study's objectives are to investigate how the product quality variable affects customer happiness and loyalty and to evaluate how customer satisfaction functions as a mediator in the interaction between the two. Due to its significant infrastructure requirements—including toll roads, hotels, buildings, and residential areas—to support Bali tourism, Denpasar City was selected as the study site. In comparison to other cities or regencies on the island, Denpasar City is also Bali's largest city. As to the Central Statistics Agency (BPS), the GDP at current prices is total regional income. in Denpasar City was recorded at IDR 49.58 trillion in 2020, with Badung Regency in second place at IDR 49.21 trillion (Kusnandar V.B, 2021).

The study used a total of 11 indicators, with the sample size determined by multiplying the number of indicators by 10 observations, as the ideal sample size for multivariate research is at least 5-10 observations per estimated parameter (Sugiyono, 2013, as cited in Alfareza & Sukaatmadja, 2024). Consequently, the study involved 110 respondents.

Google Forms was used to disseminate the surveys both online and offline. A 5-point Likert scale was used to measure the responses, with 1 denoting "strongly disagree" and 5 denoting "strongly agree." SPSS software was then used to test the validity and reliability of the gathered data. Inferential statistical analysis was used to test hypotheses, path analysis was used to evaluate the correlations between variables, and descriptive statistical analysis was used to characterize study variables and respondent characteristics. To verify the validity of the regression model, traditional assumption tests such as the normality, multicollinearity, and heteroscedasticity tests were performed. Furthermore, the strength of the indirect relationship between customer happiness and customer loyalty through product quality was evaluated using the Sobel test.

RESULT

Table 3. Respondent Characteristics

No	Characteristics	Classification	Number	Percentage (%)
1	Gender	Male	79	71,82
		Female	31	28,18
	Total	110	100,00	
2	Jobs	Building Shop Owner	19	14,29
		Employee or Building Shop Clerk	39	35,45
		Contractor	24	21,81
		Project Foreman	28	25,45
	Total	110	100,00	
No	Characteristics	Classification	Total	Percentage (%)
3	Monthly Income	< Rp. 3.000.000	16	14,54
		Rp. 3.000.000 - Rp. 5.000.000	25	22,72
		> Rp. 5.000.000	69	62,74
	Total	110	100,00	
4	Age	20 - 30 Years	46	41,81
		31 - 40 Years	34	30,90
		41 - 50 Years	23	20,90
		51 - 60 Years	6	5,45
		>60 Years	1	0,94
Total	110	100,00		
5	Education	High School	56	50,90
		Diploma (D1, D2, D3, D4)	29	26,36
		Bachelor (S1)	16	14,54
		Master and/or higher (\geq S2)	9	8,20
	Total	110	100,00	

Source: Data Processed, 2024

The respondent identifiers are data collected to understand the characteristics of the research respondents. Based on the survey results, the characteristics of the respondents described in this study include gender, occupation, monthly income, age, and educational background. Regarding gender, the majority of respondents were male, accounting for 71.82%. The largest occupational group was construction store employees, making up 35.45%. In terms of income, 62.74% of respondents earned more than IDR 5,000,000 per month. The largest age group was 20-30 years old, representing 41.81% of the respondents.

Table 4. Validity Test Results

No	Variables	Instrument	<i>Pearson Correlation</i>	Description
1.	Product Quality (X)	X1	0.672	Valid
		X2	0.715	Valid
		X3	0.683	Valid
		X4	0.774	Valid
2.	Customer Satisfaction (M)	M1	0.644	Valid
		M2	0.798	Valid
		M3	0.602	Valid
No	Variables	Instrument	<i>Pearson Correlation</i>	Description
3.	Consumer Loyalty (Y)	Y1	0.701	Valid
		Y2	0.601	Valid
		Y3	0.707	Valid
		Y4	0.795	Valid

Source: Data Processed, 2024

Every instrument has a correlation coefficient value higher than 0.361, according to the validity test. These findings demonstrate the validity of the measures and indicators used in this investigation.

Table 5. Reliability Test Results

No	Variable	<i>Cronbach's Alpha</i>	Description
1.	Product Quality (X)	0.670	Reliabel
2.	Customer Satisfaction (M)	0.722	Reliabel
3.	Consumer Loyalty (Y)	0.773	Reliabel

Source: Data Processed, 2024

The reliability test results indicate that all instruments have Cronbach's Alpha values greater than 0.6, demonstrating that all variables in this study are reliable and can be used.

To describe respondents' assessments of the research variables, Their answers must be categorized using a 5-point rating system. The following criteria are used to determine the class intervals:

$$Interval = \frac{\text{Highest Score} - \text{Lowest Score}}{\text{Number of Classes}} \dots\dots\dots(1)$$

The score for each response alternative for the research variables has a maximum of five classes, with a minimum of one and a maximum of five. The following formula can be used to determine the interval.

$$Interval = \frac{5 - 1}{5}$$

$$Interval = 0.8$$

Based on the class interval, the assessment of the research variables can be evaluated from the average scores of respondents' answers using the following criteria

Table 6. Likert Scale

<i>Interval</i>		Interpretation
1,00 - 1,80	=	Very Low
1,81 - 2,60	=	Low
2,61 - 3,40	=	Simply
3,41 - 4,20	=	High
4,21 - 5,00	=	Very High

Table 7. Results of Description of Customer Satisfaction Variable

Instrument	Answered Score					Total Score	Avg.	Description
	1	2	3	4	5			
I am satisfied with the various types of Cements from PT Semen Indonesia:	6	16	21	47	20	389	3,53	High
I feel satisfied with the services provided by PT Semen Indonesia to me according to with what I expected:	10	12	30	34	24	380	3,45	High
I am satisfied with my decision to buy PT Semen Indonesia products:	7	11	21	42	29	405	3,68	High
Average Customer Satisfaction score							3,55	High

Source: Data Processed, 2024

overall customer satisfaction variable received an average score of 3.55, which falls into the "High" category based on the standard variable assessment criteria. This indicates that respondents perceive customer satisfaction – measured by indicators such as satisfaction with various product types, satisfaction with the services provided that meet expectations, product appearance, and satisfaction with the decision to purchase PT Semen Indonesia's products – as high. This level of satisfaction suggests that PT Semen Indonesia's products are considered reliable and safe for the market or customers to engage in transactions.

Table 8. Results of Description of Product Quality Variable

Instrument	Answered Score					Total Score	Avg	Description
	1	2	3	4	5			
I feel that the products provided by PT Semen Indonesia has a very good performance edaquate:	8	12	15	39	36	413	3,75	High
I feel that the product provided by PT Semen Indonesia lasts a long time:	6	17	15	34	38	411	3,74	High
I feel that the products from PT Semen Indonesia had various types and its functions	8	12	24	41	25	393	3,57	High
I feel an impression of quality products provided by PT Semen Indonesia is in accordance	3	18	19	37	33	409	3,71	High
Average Customer Satisfaction score							3,69	High

Source: Data Processed, 2024

The overall product quality variable received an average score of 3.69, which is categorized as "High" based on the variable assessment standards. This indicates that respondents perceive the product quality of PT Semen Indonesia – measured by indicators such as performance, durability, product variety, and perceived quality – as high and trustworthy for market or customer transactions with PT Semen Indonesia.

Among the indicators, scores above the average were recorded for product performance (3.75), durability (3.74), and perceived quality (3.71), highlighting that the products are durable and convey a strong sense of quality. However, the indicator for product variety scored slightly below average at 3.57, although it still falls within the "Good" category. This suggests that while PT Semen Indonesia performs well in other areas, it could benefit from enhancing product variety to further strengthen its market presence.

Table 9. Results of Description of Consumer Loyalty Variable

Instrument	Answered Score					Total Score	Avg	Description
	1	2	3	4	5			
I always choose to buy PT Semen Indonesia's products because I believe that to the quality provided:	13	11	19	35	32	392	3,56	High
I am committed to buying PT Semen Indonesia products even if there are changes in the price offered:	9	19	25	32	25	375	3,41	High
I continue to buy PT Semen Indonesia products and will not move to competing products other than PT Semen Indonesia:	7	15	16	43	29		3,65	High
I will recommend the benefits of PT Semen Indonesia products to my colleagues:	8	16	17	41	28	395	3,59	High
Average Customer Satisfaction score							3,55	High

Source: Data Processed, 2024

The average score for the customer loyalty variable is 3.55, indicating that respondents' tendency to remain loyal to PT Semen Indonesia is categorized as "High." This average score suggests a strong level of loyalty among customers. However, this score could be improved if PT Semen Indonesia enhances customer loyalty by improving quality and satisfaction across all product lines, rather than focusing on only a subset of products.

Table 10. Normality Test Results

		Unstandardized Residual
N		110
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	3.39056994
Most Extreme Differences	Absolute	0.069
	Positive	0.067
	Negative	-0.069
Test Statistic		0.079
Asymp. Sig. (2-tailed)		0.083 ^c

Source: Data Processed, 2024

The Kolmogorov-Smirnov method of the normalcy test produced a value of 0.083, which is higher than 0.05. The data is regularly distributed, according to this finding.

Tabel 11. Multicollinearity Test Results

No	Variables	Tolerance Value	VIF Value
1	Product Quality (X)	0,590	1,696
2	Customer Satisfaction (M)	0,590	1,696

Source: Data Processed, 2024

The multicollinearity test results show that The Variance Inflation Factor (VIF) is less than 10 and the tolerance value is more than 0.10. In particular, the tolerance value is 0.590 and the VIF is 1.696. These findings suggest that the independent variables do not have a multicollinearity problem.

Table 12. Heteroscedasticity Test Results

No	Variables	Sig	Description
1	Product Quality (X)	0,312	Heteroscedasticity Free
2	Customer Satisfaction (M)	0,067	Heteroscedasticity Free

Source: Data Processed, 2024

The results show that all residual significance levels are higher than 0.05. This demonstrates that the data show no signs of heteroscedasticity.

Table 13. Results of Path Analysis I

Model	Unstandardized Coefficients		Unstandardized Coefficients		t	Sig.
	B	Std. Error	Beta			
(Constant)	7,569	1,216			6,226	0,000
Product Quality (X)	0,701	0,080	0,641		8,748	0,000
R ²	0,410					
F Statistik	76,524					
Sig.F	.000 ^b					

Source: Data Processed, 2024

$$M = \beta_2 X + \varepsilon_1 \dots \dots \dots (1)$$

$$M = 0,701 X + \varepsilon_1$$

Product quality has a positive impact on customer satisfaction, as shown by equation (1), which shows that it has a coefficient of 0.701 for customer contentment. Accordingly, consumer satisfaction will rise by 0.701 units if product quality improves.

Table 14. Results of Path Analysis II

Model	Unstandardized Coefficients		Unstandardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	3,048	1,673		1,822	0,071
Product Quality (X)	0,581	0,123	0,440	4,705	0,000
Customer Satisfaction (M)	0,348	0,113	0,288	3,081	0,003
R ²	0,438				
F Statistik	42,559				
Sig.F	0,000 ^b				

Source: Data Processed, 2024

$$Y = \beta_1 X + \beta_3 M + \varepsilon^2 \dots\dots\dots (2)$$

$$Y = 0,581 X + 0,348 M + \varepsilon^2$$

Equation (2) shows that product Customer satisfaction has a coefficient of 0.348 for quality, and 0.581 for customer loyalty customer loyalty. This indicates that both variables positively influence customer loyalty. Specifically, if product quality improves, customer loyalty increases by 0.581, and if customer satisfaction improves, customer loyalty increases by 0.348.

To construct the final path model based on Equations (1) and (2), the standard error (Pe_i) must first be calculated using the following formula:

$$Pe_i = \sqrt{1 - R_i^2} \dots\dots\dots (3)$$

$$Pe_1 = \sqrt{1 - R_1^2} = \sqrt{1 - 0,410} = 0,768$$

$$Pe_2 = \sqrt{1 - R_2^2} = \sqrt{1 - 0,438} = 0,749$$

Based on the calculation of error influences (Pe_i), the first error influence (Pe₁) is 0.768, and the second error influence (Pe₂) is 0.749. The total coefficient of determination (R²_m) can then be calculated using the formula:

$$R^2_m = 1 - (Pe_1)^2 - (Pe_2)^2 \dots\dots\dots (4)$$

$$= 1 - (0,768)^2 - (0,749)^2$$

$$= 1 - (0,589) - (0,561)$$

$$= 1 - 0,330 = 0,670$$

Variations in product quality and customer satisfaction account for 67% of the variation in customer loyalty, according to the total determination value of 0.670. Other factors not included in the research model account for the remaining 33%.

A t-value of 4.705, which is higher than the t-table value for $n=110$, is found in the investigation of the relationship between product quality and customer loyalty. The F-value for $n=110$ is more than the F-table value, and the significance level (pp) is 0.000, which is less than 0.05. These findings show a positive and substantial association between customer loyalty and product quality, supporting Hypothesis 1 (H1H1) and rejecting the null hypothesis (H0H0).

The t-value of 8.748, which is higher than the t-table value for $n=110$, is found in the investigation of the relationship between product quality and customer happiness. The F-value is 76.524, which is higher than the F-table value for $n=110$, and the significance level (pp) is 0.000, which is less than 0.05. These findings show a strong and positive correlation between customer happiness and product quality, supporting Hypothesis 2 (H2H2) and rejecting the null hypothesis (H0H0).

The t-value of 3.081, which is higher than the t-table value for $n=110$, is found in the investigation of the relationship between customer satisfaction and customer loyalty. The F-value is 42.559, which is higher than the F-table value for $n=110$, and the significance level (pp) is 0.003, which is less than 0.05. These findings show a positive and significant association between customer happiness and customer loyalty, supporting Hypothesis 3 (H3H3) and rejecting the null hypothesis (H0H0).

Table 15. Direct Effect, Indirect Effect and Total Effect of Product Quality (X), Customer Satisfaction (M) and Consumer Loyalty (Y)

Variable Influence	Direct Effect	Indirect Effect ($\beta_2 \times \beta_3$)	Total Effect $\beta_1 + (\beta_2 \times \beta_3)$
Product Quality (X) → Consumer Loyalty (Y)	0,581	0,243	0,824
Product Quality (X) → Customer Satisfaction (M)	0,701	-	-
Customer Satisfaction (M) → Consumer Loyalty (Y)	0,348	-	-

Source: Data Processed, 2024

According to the analysis's findings, customer happiness mediates the indirect influence of product quality on customer loyalty, which has a direct effect of 0.581. This indicates that the impact of product quality on customer satisfaction might be mediated by customer loyalty, with a total effect of 0.824. All these effects have a significance level below 0.05, indicating that both the direct and indirect effects of the variables are significant.

The coefficient of the direct effect of product quality is greater than the coefficient of its indirect effect, but it is not greater than the total effect coefficient. These findings suggest that customer satisfaction is capable of partially mediating the effect of product quality on customer loyalty.

Table 16. Results of Path Analysis of Structure I and II

Variable	Unstandardized Coefficients	Standard Error
Product Quality (X) → Customer Satisfaction (M)	0,701 (a)	0,080 (s _a)
Customer Satisfaction (M) → Consumer Loyalty (Y)	0,348 (b)	0,113 (s _b)

Source: Data Processed, 2024

$$\begin{aligned}
 Sab &= \sqrt{b^2Sa^2 + a^2Sb^2 + Sa^2Sb^2} \dots\dots\dots (5) \\
 Sab &= \sqrt{(0,348)^2(0,080)^2 + (0,701)^2(0,113)^2 + (0,080)^2(0,113)^2} \\
 Sab &= \sqrt{(0,121)(0,0064) + (0,491)(0,012769) + (0,0064)(0,012769)} \\
 Sab &= \sqrt{0,0007744 + 0,006269579 + 0,0000817216} \\
 Sab &= \sqrt{0,007125716766} \\
 Sab &= 0,08441396073 \text{ atau } Sab \approx 0,084
 \end{aligned}$$

The ab value which is the result of multiplying the path M on Y (b) by the path coefficient X on the path coefficient M (a).

$$\begin{aligned}
 ab &= 0,701 \times 0,348 \dots\dots\dots (6) \\
 ab &= 0,243948 \text{ atau } ab \approx 0,244
 \end{aligned}$$

So the Z value can be found by entering the formula:

$$\begin{aligned}
 Z &= \frac{ab}{Sab} \dots\dots\dots (7) \\
 Z &= \frac{0,243948}{0,08441396073} \\
 Z &= 5,3868387512 \text{ atau } Z \approx 5,387
 \end{aligned}$$

At a "Taraf Nyata" of alpha 0.05, the test criteria used are as follows:

Z hitung < 1,96 therefore H₀ is accepted which means M is not a mediating variable.

Z hitung ≥ 1,96 therefore H₄ is accepted which means M is a mediating variable.

Based on the Sobel test results, a Z value of 5.387 was obtained, which is greater than 1.96. This indicates that Hypothesis 4 (H4) is accepted, meaning customer satisfaction positively and significantly mediates the effect of product quality on customer loyalty.

DISCUSSION

Theoretical Implications which is the result of multiplying the path M on Y (b) by the path coefficient X on the path coefficient M (a).

Practical Implications The study's results suggest several actionable steps for PT Semen Indonesia to improve product quality. One recommendation is to increase product variety to compete in various market segments. This reflects the perception of most customers that PT Semen Indonesia's products are primarily superior in certain market segments.

CONCLUSION AND RECOMMENDATION

According to the study's findings, product quality not only directly affects customer pleasure but also increases customer loyalty. The more satisfied customers are with PT Semen Indonesia's products in Denpasar City, the more the quality of the product influences their loyalty.

Efforts that PT Semen Indonesia can undertake to improve product quality indicators include optimizing product quality by tightening standardization and regularly conducting cross-checks on every product offered. For customer satisfaction indicators, PT Semen Indonesia can optimize product information by improving product design and intensifying promotional activities such as product demonstrations. Regarding customer loyalty indicators, PT Semen Indonesia can increase product variety across various market segments.

This study focuses solely on the relationship between customer loyalty, customer happiness, and product quality in Denpasar City. Other variables, such as price perception, after-sales service, and more, may also affect customer loyalty and could be considered in future research. Additionally, this study is limited to Denpasar City, making it unsuitable for generalization to other regions, either within Bali or outside the island.

Research Limitations This study has several limitations. It only examines the influence of product quality, customer satisfaction, and customer loyalty in Denpasar City. Other variables, such as price perception, value perception, after-sales service, and others, may also affect customer loyalty and could be included in future research. Additionally, this study is specific to Denpasar City, making it unsuitable for generalization to other regions within or outside Bali. The dynamic nature of the environment may also lead to changes in related topics or relationships, necessitating further research in the future.

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