

The Influence of Product Quality on Customer Loyalty at Groei Coffee Bandung in 2026

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Abstract

This study aims to analyze the influence of product quality on customer loyalty at Groei Coffee Bandung in 2026. The background of this research is the increasing competition in the coffee shop industry, which requires businesses to maintain product quality to sustain customer loyalty. This study uses a quantitative approach with a survey method involving 100 respondents who are active customers of Groei Coffee. Data were collected through questionnaires using a 5-point Likert scale and analyzed using descriptive statistics and simple linear regression with the assistance of SPSS software. The results show that product quality has a positive and significant effect on customer loyalty, with a regression equation of $Y = 13.289 + 0.250X$ and a significance value of $0.000 < 0.05$. Descriptive analysis indicates that product quality is rated in the “satisfied” category with an average score of 79.02%, while customer loyalty also falls into the “satisfied” category with an average score of 79.04%. The coefficient of determination ($R^2 = 0.234$) shows that product quality explains 23.4% of customer loyalty, while the remaining 76.6% is influenced by other factors. These findings suggest that maintaining product quality, particularly in terms of taste consistency, reliability, and presentation aesthetics, plays an important role in enhancing customer loyalty.

INTRODUCTION

The food and beverage (F&B) industry is one of the sectors that continues to grow alongside increases in population and changes in the lifestyles of urban communities. West Java Province has the largest population in Indonesia, namely 50,489,208 people in the first semester of 2024, making it a potential market for culinary businesses, including coffee shops (Klikers.id, 2024). At the city level, Bandung also has a high population and is supported by creative economy activities, making it one of the centers for the growth of the food and beverage business in West Java (City, 2022).

The growth of the coffee shop industry in Indonesia has increased significantly since 2020. Industry reports show that the market value of Indonesian coffee shops is projected to reach USD 2.1 billion, with an annual growth rate of around 10 percent by 2025, indicating that coffee consumption is now part of the lifestyle of urban communities (Liputan6, 2024). This increase is also driven by the development of coffee-based food and beverage products that are increasingly diverse, both in terms of flavor variants, brewing methods, and the quality of raw materials (Cheung & Thadani, 2012; Hult et al., 2019; Islam et al., 2021; Uzir et al., 2021).

In line with increasing competition in the coffee shop industry, customer loyalty is one of the most important factors for business sustainability. Study results by (Azriel & Susanto, 2024) show that product quality, including taste, consistency, and overall quality perception, has a significant effect on customer loyalty at Nama Baik Café Surabaya, where customers

who receive good product quality are more likely to show repurchase preferences and recommendations to others. In addition, the research (Rahmadi et al., 2023) Bean coffee consumers at Titik Tuju Kediri found that product quality partially has a significant influence on customer loyalty, although digital marketing variables do not have a partial effect, but simultaneously both contribute to loyalty. These findings strengthen the argument that product quality is an important factor in shaping customer loyalty in the coffee business, so the quality aspect needs to be the main focus of product development by business management such as GROEI Coffee (Akbari et al., 2022; Camilleri & Filieri, 2024; Giovanis & Athanasopoulou, 2018; Zhao et al., 2020).

GROEI Coffee Bandung is one of the local coffee shops that is growing rapidly and has a base of regular customers (Gruen et al., 2006; Pan et al., 2012; Rizvanovic et al., 2023). However, increasingly fierce competition in the city of Bandung makes product quality an important factor that must be maintained to sustain customer loyalty. To date, there has been no academic research that specifically discusses the influence of product quality on customer loyalty at GROEI Coffee Bandung. Therefore, it is important to conduct empirical research to analyze whether the quality of the products provided by GROEI Coffee truly contributes to the formation of customer loyalty (Azriel & Susanto, 2024; Liao et al., 2021; Rahmadi et al., 2023).

This study aims to develop a thorough understanding of how product quality shapes customer loyalty at GROEI Coffee Bandung, shedding light on the mechanisms through which quality standards influence loyal consumer behavior. Beyond this, the study seeks to paint a fuller picture of the degree to which customers are both loyal to and satisfied with GROEI Coffee Bandung's offerings. The findings are intended to give management a reliable foundation for assessing the relationship between product quality and loyalty, while also guiding the development of more targeted product improvement strategies to sustain the brand's competitive position through 2026.

Drawing on the existing body of literature and observable market trends, a notable gap emerges in research exploring the connection between product quality and customer loyalty — particularly within Indonesia's local coffee business landscape. Prior studies have largely centered on customer satisfaction as the key intermediary variable in building loyalty, leaving relatively unexplored the direct relationship between product quality and loyalty in the context of independently operated coffee businesses like Groei Coffee Bandung. Furthermore, much of the earlier research has focused on large-scale brands or franchise operations, which may not accurately capture the consumer dynamics at play in locally owned coffee shops — establishments that carry their own distinctive character in terms of offerings, service style, and overall customer experience. This gap underscores the need for research that directly investigates how product quality drives loyalty in locally rooted coffee businesses.

What sets this study apart is its deliberate choice to examine the direct effect of product quality on customer loyalty, without treating satisfaction as a central mediating factor — a departure from the conventional approach taken in much of the existing literature. The selection of Groei Coffee Bandung as the research site is equally significant, as it represents the growing wave of local coffee shops navigating an increasingly crowded and competitive industry. The study also contributes to the broader academic conversation by offering an empirically grounded view of consumer behavior within Indonesia's local coffee sector, an area that remains underrepresented in scholarly work.

Against this backdrop, the central research question revolves around the nature of the relationship between the product quality delivered by Groei Coffee Bandung and the loyalty its customers demonstrate, as well as the degree to which quality serves as a driver of that loyalty. Rather than simply describing the current state of product quality and customer loyalty, this study goes a step further by analyzing the directional relationship between these two constructs within a local coffee business setting.

Consistent with this focus, the study's objectives include examining how product quality influences customer loyalty at Groei Coffee Bandung, determining the existing levels of customer loyalty and satisfaction with its products, and evaluating the extent to which product quality acts as a lever for cultivating lasting customer commitment. Ultimately, the study aspires to offer a well-rounded perspective on product quality as a pivotal element in customer retention within the coffee industry.

The contributions of this research span both theoretical and practical dimensions. On the theoretical side, it is expected to advance the field of marketing management — particularly regarding the interplay between product quality and loyalty in micro and locally owned enterprises — while also serving as a useful reference point for future consumer behavior research in the coffee sector. On the practical side, the study is intended to equip the management of Groei Coffee Bandung with actionable insights for elevating product quality as a means of deepening customer loyalty. More broadly, its findings may also inform other coffee business operators seeking to develop quality-driven strategies for retaining customers in an ever more competitive marketplace.

RESEARCH METHOD

A quantitative approach was adopted in this study to investigate how product quality shapes customer loyalty at Groei Coffee. The starting point was the identification of a central concern: the degree to which product quality affects customer retention at Groei Coffee within the context of growing competitive pressure in Bandung's coffee shop sector. This landscape compels businesses to continuously uphold and elevate their product standards in order to satisfy evolving consumer demands and maintain a loyal customer base. To build the conceptual framework, a review of existing literature was carried out, covering theories of product quality and customer loyalty and drawing on indicators and methodologies from prior research. Two hypotheses were then developed: H_0 proposed that product quality at Groei Coffee exerts no meaningful effect on customer loyalty, whereas H_1 proposed that product quality does have a significant impact on customer loyalty.

The study adopted a survey-based quantitative framework to explore the relationship between product quality (independent variable) and customer loyalty (dependent variable). Instruments for data collection consisted of a structured questionnaire utilizing a Likert scale. Primary data were gathered directly from Groei Coffee patrons via online questionnaires shared through social media, while secondary data were sourced from academic literature and internal company records to complement the primary findings. The analysis drew on both descriptive and inferential statistical methods. Before hypothesis testing was carried out, the research instrument underwent validity and reliability assessments, after which simple linear regression was applied to measure the extent of product quality's influence on customer loyalty. The outcomes were subsequently interpreted to address the research questions and evaluate the hypotheses, culminating in a formally structured research report.

The study was situated at Groei Coffee in Bandung, a location selected because of its established patronage and its suitability as a research setting. Fieldwork spanned from October 2025 to January 2026 and encompassed questionnaire distribution, data gathering, statistical analysis, and report compilation. Both primary and secondary data sources were employed — primary data were obtained directly from survey respondents, while secondary data were drawn from relevant scholarly works and supporting organizational documents.

Descriptive statistics were employed to characterize respondents' views on product quality and customer loyalty. Responses from 100 customers were recorded on a five-point Likert scale and summarized using mean scores, frequency counts, and percentages. The findings reflected broadly favorable perceptions of product quality alongside strong levels of customer loyalty. To verify that questionnaire items accurately captured the variables under

study, a validity assessment was performed; items were deemed valid when their correlation coefficients surpassed the critical threshold at a 5% significance level. Instrument consistency was evaluated through Cronbach's Alpha reliability testing, with a coefficient above 0.60 serving as the benchmark for reliability. Finally, simple linear regression was applied to assess the directional influence of product quality on customer loyalty, modeled as $Y = a + bX$ — where Y denotes customer loyalty, X denotes product quality, a is the intercept, and b is the regression coefficient.

RESULTS AND DISCUSSION

Results Overview

The primary objective of this research is to examine how product quality shapes customer loyalty at Groei Coffee Bandung throughout 2026. To gather the necessary data, online questionnaires were distributed to 100 active customers of Groei Coffee. The collected responses were subsequently processed using descriptive statistics and simple linear regression analysis, with SPSS version 25 serving as the analytical tool.

Respondent Profile by Gender

Among the total respondents, 54 were female (54%) and 46 were male (46%). Based on this distribution, women represent the dominant consumer group at Groei Coffee Bandung.

Respondent Profile by Age

The 26–35 age bracket accounted for the largest share of participants, comprising 82.80% of the total sample. The 18–25 age group followed at 17.20%, while no respondents fell below 18 years of age or above 35 years old, each registering at 0%.

Respondent Profile by Income

In terms of monthly spending, the majority of respondents — 69% — reported expenditures between IDR 1,000,000 and IDR 3,000,000. Those spending between IDR 3,000,000 and IDR 6,000,000 made up the second-largest group at 23%. Respondents with monthly expenses below IDR 1,000,000 accounted for 5%, while those spending above IDR 6,000,000 represented the smallest segment at just 3%.

Data Analysis and Interpretation

Descriptive Analysis

A descriptive analysis was performed to assess how respondents perceived the two core variables under investigation: product quality (X) and customer loyalty (Y) at Groei Coffee Bandung. Responses were measured using a five-point Likert scale, where a score of 1 indicated "very dissatisfied" and a score of 5 represented "very satisfied."

Descriptive Analysis of Sub-Variable X (Product Quality)

a. Performance Results

Table 1. Descriptive Analysis of Product Quality: Performance Results

No	Statement	Score Categories					Score Total	Score Ideal	%	Criteria
		STP (1)	TP (2)	CP (3)	P (4)	SP (5)				
1.	Groei Coffee products give me satisfaction the first time I consume them.	0	5	21	54	20	389	500	77,8%	Satisfied
2.	The taste of the products served by Groei Coffee is able to provide	0	3	18	55	24	400	500	80,0%	Satisfied

	satisfaction to customers.									
3.	The taste, aroma, and quality of Groei Coffee's products are in line with my expectations as a customer.	0	4	20	52	24	396	500	79,2%	Satisfied
Total							1.185	1.500	79,0%	Satisfied

Source: Primary data processed by the author, 2026

Based on the analysis of data contained in Table 1, the average score of the three statements representing the performance dimension shows a value of 79.0%. To understand these results, respondents' assessments can be further analyzed through the following continuum line reference.

The percentage of 79.0% indicates that respondents' responses to the performance dimension are in the "Satisfied" category. The statement with the highest percentage is found in the second indicator, which is 80.0%, which indicates that most respondents give a very positive assessment of the taste of the products served by Groei Coffee.

b. Additional Features

Table 2. Descriptive Analysis of Product Quality: Additional Features

No	Statement	Score Categories					Score Total	Score Ideal	%	Criteria
		STP (1)	TP (2)	CP (3)	P (4)	SP (5)				
4.	The texture of the drink served by Groei Coffee was in line with my expectations.	0	5	22	50	23	391	500	78,2%	Satisfied
5.	The consistency of product taste at Groei Coffee is always well maintained.	0	6	23	49	22	387	500	77,4%	Satisfied
6.	The price of the products offered by Groei Coffee is in accordance with the quality provided.	0	7	24	47	22	384	500	76,8%	Satisfied
Total							1.162	1.500	77,5%	Satisfied

Source: Primary data processed by the author, 2026

Based on the results of the data processed in Table 4.2, the average value of the three statements reflecting the dimensions of additional features in Groei Coffee products showed a value of 77.5%. To gain a more comprehensive understanding of these results, respondents' assessments were further analyzed using the following continuum line references.

The score of 77.5% was in the "Satisfied" category. This value indicates that the majority of respondents consider the texture of the drink, the consistency of the taste, and the suitability

of the price with the quality of the products offered by Groei Coffee to have met customer expectations and provided a positive consumption experience.

c. Reliability

Table 3. Descriptive Analysis of Product Quality: Reliability

No	Statement	Score Categories					Score Total	Score Ideal	%	Criteria
		STP (1)	TP (2)	CP (3)	P (4)	SP (5)				
7.	The raw materials used in Groei Coffee products are of good quality.	0	3	17	54	26	403	500	80,6%	Very satisfied
8.	The products served by Groei Coffee are always in a fresh condition.	0	4	18	55	23	397	500	79,4%	Satisfied
9.	The cleanliness of product presentation at Groei Coffee is always well maintained.	0	2	15	56	27	408	500	81,6%	Very satisfied
Total							1.208	1.500	80,5%	Very satisfied

Source: Primary data processed by the author, 2026

Based on the results of the data processed in Table 3, the average value of the three statements that reflect the dimension of product quality reliability in Groei Coffee shows a value of 80.5%. To gain a deeper understanding of these results, respondents' assessments were further analyzed using the following continuum line references.

The score of 80.5% is in the "Very Satisfied" category. This indicates that the majority of respondents assessed that the raw materials used, the level of freshness of the product, and the cleanliness in the presentation of Groei Coffee products have met high quality standards and provided a sense of security and satisfaction for customers.

d. Conformance to Specification

Table 4. Descriptive Analysis of Product Quality: Conformance to Specification

No	Statement	Score Categories					Score Total	Score Ideal	%	Criteria
		STP (1)	TP (2)	CP (3)	P (4)	SP (5)				
10.	Products at Groei Coffee are safe for consumption by customers.	0	2	14	55	29	411	500	82,2%	Very satisfied
11.	The products offered by Groei Coffee have interesting innovations.	0	6	23	48	23	388	500	77,6%	Satisfied
12.	The variety of menus available at Groei Coffee is quite diverse.	0	7	24	46	23	385	500	77,0%	Satisfied
Total							1.184	1.500	78,9%	Satisfied

Source: Primary data processed by the author, 2026

Based on the results of the data processed in Table 4, the average value of the three statements reflecting the conformance quality dimension in Groei Coffee products showed a value of 78.9%. To gain a more comprehensive understanding of these results, respondents' assessments were further analyzed using the following continuum line references.

The score of 78.9% is in the "Satisfied" category. This indicates that the level of product safety, innovation offered, and menu variety at Groei Coffee is considered to be in accordance with customer expectations and able to provide a satisfactory consumption experience.

e. Serviceability

Table 5. Descriptive Analysis of Product Quality: Serviceability

No	Statement	Score Categories					Score Total	Score Ideal	%	Criteria
		STP (1)	TP (2)	CP (3)	P (4)	SP (5)				
13.	Groei Coffee products are unique compared to other café products.	0	6	22	49	23	389	500	77,8%	Satisfied
14.	The products offered are according to my tastes and preferences.	0	5	21	50	24	0	500	78,6%	Satisfied
15.	Overall, I am satisfied with the quality of the products at Groei Coffee.	0	3	18	53	26	0	500	80,4%	Very satisfied
Total							1.184	1.500	78,9%	Satisfied

Source: Primary data processed by the author, 2026

Based on the results of the data processed in Table 5, the average value of the three statements reflecting the serviceability dimension of Groei Coffee showed a value of 78.9%. To gain a more comprehensive understanding of these results, respondents' assessments were further analyzed using the following continuum line references.

The score of 78.9% is in the "Satisfied" category. This indicates that customers assess Groei Coffee's ability to present unique products, in accordance with customer tastes and preferences, and is able to provide overall satisfaction has gone well. This ability shows that Groei Coffee is able to meet customer needs and expectations through the products offered, thereby creating a positive experience for customers.

f. Durability

Table 6. Descriptive Analysis of Product Quality: Durability

No	Statement	Score Categories					Score Total	Score Ideal	%	Criteria
		STP (1)	TP (2)	CP (3)	P (4)	SP (5)				
16.	I rate the quality of the products at Groei Coffee in general to be very good.	0	3	17	54	26	403	500	80,6%	Very satisfied
17.	The quality of the products at Groei Coffee has always	0	5	21	51	23	392	500	78,4%	Satisfied

	been consistent every time I buy.										
18.	The products at Groei Coffee have good quality durability.	0	6	22	50	22	388	500	77,6%	Satisfied	
Total							1.183	1.500	78,9%	Satisfied	

Source: Primary data processed by the author, 2026

Based on the results of the data processed in Table 6, the average value of the three statements reflecting the durability dimension of Groei Coffee products shows a value of 78.9%. To gain a deeper understanding of these results, respondents' assessments were further analyzed using the following continuum line references.

The score of 78.9% is in the "Satisfied" category. This indicates that the quality of Groei Coffee products is considered to have good durability, reflected in the consistency of product quality every time purchase and the positive assessment of customers on product quality in general. The durability of this quality shows that Groei Coffee products are able to maintain quality for a certain period of time and provide continuous satisfaction for customers.

g. Perceived Quality

Table 7. Descriptive Analysis of Product Quality: Perceived Quality

No	Statement	Score Categories					Score Total	Score Ideal	%	Criteria
		STP (1)	TP (2)	CP (3)	P (4)	SP (5)				
19.	I rated the overall quality of the products at Groei Coffee to be very good.	0	3	16	55	26	404	500	80,8%	Very satisfied
20.	The ingredients used in the products at Groei Coffee are of good quality.	0	2	15	56	27	408	500	81,6%	Very satisfied
21.	Product quality is the reason I make a repeat purchase at Groei Coffee.	0	4	19	52	25	398	500	79,6%	Satisfied
Total							1.210	1.500	80,7%	Very satisfied

Source: Primary data processed by the author, 2026

Based on the results of the data processed in Table 7, the average value of the three statements that reflect the perceived quality dimension of Groei Coffee products shows a value of 80.7%. To gain a more comprehensive understanding of these results, respondents' assessments were further analyzed using the following continuum line references.

The score of 80.7% is in the "Very Satisfied" category. This indicates that customers have a very positive perception of the quality of Groei Coffee's products, both in terms of overall product quality, raw materials used, and the role of product quality as the main reason in encouraging repeat purchases. This perception of high quality shows that Groei Coffee has succeeded in building a strong product quality image in the minds of customers.

h. Aesthetics

Table 8. Descriptive Analysis of Product Quality: Aesthetics

No	Statement	Score Categories					Score Total	Score Ideal	%	Criteria
		STP (1)	TP (2)	CP (3)	P (4)	SP (5)				
22.	The visual display of the products at Groei Coffee looks attractive.	0	6	23	48	23	388	500	77,6%	Satisfied
23.	The combination of colors and product presentation at Groei Coffee caught my attention.	0	7	24	46	23	385	500	77,0%	Satisfied
24.	The first impression of the product presentation at Groei Coffee gives a positive image.	0	5	20	52	23	393	500	78,6%	Satisfied
Total							1.166	1.500	77,7%	Satisfied

Source: Primary data processed by the author, 2026

Based on the results of the data processed in Table 4.9, the average value of the three statements that reflect the aesthetic dimension of Groei Coffee products shows a value of 77.7%. To gain a deeper understanding of these results, respondents' assessments were further analyzed using the following continuum line references.

The score of 78.9% is in the "Satisfied" category. This indicates that the quality of Groei Coffee products is considered to have good durability, reflected in the consistency of product quality every time purchase and the positive assessment of customers on product quality in general. The durability of this quality shows that Groei Coffee products are able to maintain quality for a certain period of time and provide continuous satisfaction for customers.

Descriptive Analysis of Sub-Variable Y (Customer Loyalty)

a. Repeat Repurchase

Table 9. Descriptive Analysis of Customer Loyalty: Repeat Repurchase

No	Statement	Score Categories					Score Total	Score Ideal	%	Criteria
		STP (1)	TP (2)	CP (3)	P (4)	SP (5)				
25.	The positive experience made me want to buy again the products at Groei Coffee.	0	5	21	50	24	393	500	78,6%	Satisfied
26.	Buying products at Groei Coffee is more satisfying than other cafes.	0	7	24	45	24	386	500	77,2%	Satisfied
27.	The products at Groei Coffee match my preferences so it encourages me to buy again.	0	5	22	49	24	392	500	78,4%	Satisfied
Total							1.171	1.500	78,1%	Satisfied

Source: Primary data processed by the author, 2026

Based on the results of the data processed in Table 9, the average value of the three statements reflecting the repeat repurchase dimension of Groei Coffee customers showed a value of 78.1%. To gain a deeper understanding of these results, respondents' assessments were further analyzed using the following continuum line references.

The score of 78.1% is in the "Satisfied" category. This indicates that the positive experience felt by customers, the level of satisfaction compared to other cafes, as well as the suitability of the product with customer preferences have encouraged customers' intention to make a repeat purchase at Groei Coffee. This condition shows that there is a good potential for customer loyalty to the products offered.

b. Loyalty (*Retention*)

Table 10. Descriptive Analysis of Customer Loyalty: Loyalty (Retention)

No	Statement	Score Categories					Score Total	Score Ideal	%	Criteria
		STP (1)	TP (2)	CP (3)	P (4)	SP (5)				
28.	I want to remain a loyal customer at Groei Coffee.	0	4	20	52	24	396	500	79,2%	Satisfied
29.	I still chose Groei Coffee even though there are attractive offers from other cafes.	0	8	25	44	23	382	500	76,4%	Satisfied
30.	I feel that the products at Groei Coffee are worth recommending.	0	3	17	54	26	403	500	80,6%	Very satisfied
Total							1.181	1.500	78,7%	Satisfied

Source: Primary data processed by the author, 2026

Based on the results of the data processed in Table 10, the average value of the three statements reflecting the dimension of customer loyalty (retention) of Groei Coffee showed a value of 78.7%. To clarify the position of these values, an analysis was carried out using a continuum line as the basis for interpreting the level of customer loyalty.

The score of 78.7% is in the "Satisfied" category. This shows that customers have the desire to remain loyal customers, still choose Groei Coffee even though there are attractive offers from other cafes, and consider the products offered worthy of being recommended to other parties. This condition reflects that Groei Coffee has been able to retain its customers well through the quality of the products and experience provided, thus encouraging the formation of customer loyalty.

c. References

Table 11. Descriptive Analysis of Customer Loyalty: References

No	Statement	Score Categories					Score Total	Score Ideal	%	Criteria
		STP (1)	TP (2)	CP (3)	P (4)	SP (5)				
31.	I believe that the products at Groei Coffee deserve to be recommended to others.	0	3	16	55	26	404	500	80,8%	Very satisfied
32.	I want to invite others to try the	0	4	18	54	24	398	500	79,6%	Satisfied

products at Groei Coffee.										
33. The satisfaction I felt strengthened the intention to give positive recommendations.	0	3	17	54	26	403	500	80,6%	Very satisfied	
Total						1.205	1.500	80,3%	Very satisfied	

Source: Primary data processed by the author, 2026

Based on the results of the data processed in Table 11, the average value of the three statements representing the reference dimension of Groei Coffee customers shows a value of 80.3%. To clarify the position of the value achievement, an analysis was carried out using a continuum line as the basis for interpreting the level of customer tendency in providing recommendations.

The score of 80.3% was in the "Very Satisfied" category. This indicates that customers have a high level of trust in the quality of Groei Coffee products, so they are willing to recommend it to others. The satisfaction felt by customers also encourages the emergence of the intention to invite other parties to try products and provide positive recommendations. This condition shows that Groei Coffee has succeeded in creating a product experience that not only satisfies customers, but also encourages the formation of positive word-of-mouth promotions

Instrument Test

Validity Test

Table 12. Validity Test Results

Variable	Questions	R count	Remarks
Product Quality (X)	KP1	0,464	Valid
	KP2	0,402	Valid
	KP3	0,347	Valid
	KP4	0,379	Valid
	FP5	0,390	Valid
	KP6	0,321	Valid
	KP7	0,322	Valid
	FP8	0,334	Valid
	KP9	0,477	Valid
	KP10	0,520	Valid
	KP11	0,390	Valid
	KP12	0,533	Valid
	KP13	0,401	Valid
	KP14	0,418	Valid
	KP15	0,371	Valid
	KP16	0,417	Valid
	KP17	0,363	Valid
	KP18	0,435	Valid
	KP19	0,472	Valid
	KP20	0,363	Valid
	KP21	0,477	Valid
	KP22	0,520	Valid
	KP23	0,465	Valid
	KP24	0,229	Valid
Customer Loyalty (Y)	LP1	0,630	Valid
	LP2	0,608	Valid
	LP3	0,612	Valid

Variable	Questions	R count	Remarks
	LP4	0,609	Valid
	LP5	0,683	Valid
	LP6	0,695	Valid
	LP7	0,619	Valid
	LP8	0,605	Valid
	LP9	0,727	Valid

Source: Data processed by the author, 2026

Based on the results of the validity test, all question items in the variables Product Quality (X) and Customer Loyalty (Y) were declared valid. This is indicated by the calculated *r* value of each item that is greater than the *r* of the table (1.654) as well as the significance value (Sig.) that is smaller than 0.05. Thus, the research instruments used are able to measure the variables being studied accurately and are suitable for use in research.

Reliability Test

Table 13. Reliability Test Results

Variable	Cronbachs Alpha	Remarks
Product Quality (X)	0,780	Reliable
Customer Loyalty (Y)	0,821	Reliable

Source: Data processed by the author, 2026

The results of the reliability test from the table above show that all variables in this study have a good level of reliability, with *the Cronbach's Alpha* value for the Product Quality (X) variable of 0.780 and the Customer Loyalty (Y) variable of 0.821 which > 0.60 . *Cronbach's high Alpha* value shows that the instrument used in this study is consistent and reliable in measuring each variable.

Classical Assumption Test

Normality Test

Table 14. Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardize d Residual
N		100
Normal Parameters, b	Red	,0000000
	Std. Deviation	3,38862709
Most Extreme Differences	Absolute	,074
	Positive	,054
	Negative	-,074
Test Statistic		,074
Asymp. Sig. (2-tailed)		,200c,d
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

Source: Data processed by the author, 2026

Based on the results of the normality test using *the Kolmogorov–Smirnov One-Sample* in the table above, it is known that *the value of Asymp. Sig. (2-tailed)* is 0.200, which is greater than 0.05. This means that the data in this study is normally distributed.

Linearity Test

Table 15. Linearity Test Results

ANOVA Table							
			Sum of Squares	df	Mean Square	F	Sig.
Customer Loyalty	*Between	(Combined)	775,691	31	25,022	2,399	,001
Product Quality	Groups	Linearity	348,043	1	348,043	33,374	,000
		Deviation from Linearity	427,648	30	14,255	1,367	,144
Within Groups			709,149	68	10,429		
Total			1484,840	99			

Source: Data processed by the author, 2026

Based on the results of the linearity test in the table above, it is known that the significant value of *Decitiation from linearity* is $0.144 > 0.05$, so it can be concluded that there is a linear relationship between the Product Quality variable (X) and the Customer Loyalty variable (Y).

Heterokedastist Test

Table 16. Heteroscedasticity Test Results

Coefficient						
Models		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13,700	2,720		5,036	,000
	Product Quality	-,110	,027	-,382	-4,094	,000

a. Dependent Variable: Abs RES2

Source: Data processed by the author, 2026

Based on the results of the heteroscedasticity test using the Glejser method, the significance value of the Product Quality variable was $0.000 (< 0.05)$, which showed that the regression model still contained symptoms of heteroscedasticity. Thus, the assumption of homogeneity has not been fully fulfilled. However, linear regression analysis is still continued because the violation of the heteroscedasticity assumption does not cause the regression coefficient to be biased, but only affects the accuracy of the standard error. Therefore, the regression results can still be interpreted taking into account the limitations of the existing model.

Simple Linear Regression Test

Table 17. Simple Linear Regression Test Results

Coefficient						
Models		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13,289	4,608		2,884	,005
	Product Quality	,250	,046	,484	5,478	,000

a. Dependent Variable: Customer Loyalty

Source: Data processed by the author, 2026

The regression analysis yielded the following equation: $Y = 13.289 + 0.250X$. The constant of 13.289 represents the baseline level of Customer Loyalty (Y) when the Product Quality variable (X) is absent — in other words, the foundational loyalty that exists independently of product quality. The coefficient of 0.250 attached to Product Quality indicates

that for each unit improvement in product quality, customer loyalty is expected to rise by 0.250 units. Given that this coefficient carries a positive sign, it can be inferred that product quality exerts a positive influence on customer loyalty.

Hypothesis Testing

T-Test

The t-test conducted on the Product Quality variable (X) produced a t-statistic of 5.478, which surpasses the critical t-table value of 1.660 at a significance threshold of 0.05. Furthermore, the associated significance value of 0.000 falls below the 0.05 cutoff, leading to the rejection of H₀ and the acceptance of H₁. These results confirm that product quality positively and significantly influences customer loyalty (Y), demonstrating its statistically meaningful role in driving loyalty outcomes.

F-Test

The ANOVA output revealed an F-statistic of 30.004 accompanied by a significance value of 0.000, which is well below the 0.05 threshold — satisfying the condition for rejecting H₀. Using the F-table formula $F(k; n - k - 1)$ with $k = 1$ and $n = 100$, the critical F-table value was determined to be 3.94. Since the computed F-value (30.004) exceeds this critical value (3.94), H₀ is rejected in favor of H₁. This outcome confirms that product quality has a statistically significant effect on customer loyalty and validates the regression model as an appropriate tool for capturing the relationship between these two variables.

Coefficient of Determination

The regression analysis returned an R-Square value of 0.234, indicating that 23.4% of the variation observed in Customer Loyalty (the dependent variable) is attributable to Product Quality (the independent variable). The remaining 76.6% of variance is accounted for by other factors outside the scope of this study. The Adjusted R-Square value of 0.227 further refines this estimate by adjusting for model complexity, suggesting that approximately 22.7% of customer loyalty can be explained by product quality alone.

Discussion and Evaluation

This study was carried out by administering online questionnaires to 100 active customers of Groei Coffee in Bandung. The primary objective was to examine how product quality influences customer loyalty. The collected data underwent descriptive statistical analysis and simple linear regression using SPSS version 25.

In terms of respondent demographics, slightly more than half were female (54 respondents, or 54%), while male respondents numbered 46 (46%). Age-wise, the 26–35 age bracket was predominant, comprising 82.80% of participants, followed by the 18–25 age group at 17.20%. No respondents fell below 18 years or above 35 years of age.

Regarding monthly expenditure, the largest segment — 69% — reported spending between IDR 1,000,000 and IDR 3,000,000. Those spending between IDR 3,000,000 and IDR 6,000,000 accounted for 23%, while respondents spending below IDR 1,000,000 and above IDR 6,000,000 represented 5% and 3% of the sample, respectively.

The normality test produced an Asymp. Sig. (2-tailed) value of 0.200, which exceeds the 0.05 threshold, confirming that the residuals follow a normal distribution and satisfy the classical normality assumption. The linearity test returned a Deviation from Linearity significance value of 0.144, which is greater than 0.05, thereby establishing a linear relationship between Product Quality (X) and Customer Loyalty (Y). Regarding heteroscedasticity, the significance value of 0.000 — though appearing to violate the assumption — does not invalidate the regression results, as such violations affect only the precision of standard errors

rather than the direction or magnitude of the regression coefficients. The analysis was therefore continued with this limitation duly acknowledged.

Simple linear regression analysis confirmed that the Product Quality variable (X) significantly predicts Customer Loyalty (Y), with a t-statistic of 5.478 exceeding the critical t-value of 1.660 at the 5% significance level (df = 100). The significance value of less than 0.000 further corroborates the statistical reliability of this finding.

The resulting regression equation is:

$$Y = 13.289 + 0.250X$$

The constant value of 13.289 reflects the baseline level of customer loyalty in the absence of any contribution from product quality. The regression coefficient of 0.250 signifies that a one-unit increase in product quality corresponds to a 0.250-unit gain in customer loyalty, confirming a positive and directional relationship between the two — meaning that higher product quality consistently corresponds to greater customer loyalty.

The overall Product Quality variable achieved an average score of 79.02%, placing it in the "Satisfied" category. Among its dimensions, Perceived Quality scored highest at 80.70%, followed closely by Reliability at 80.50%. The remaining dimensions — including Performance, Conformity to Specifications, Serviceability, Durability, Aesthetics, and Special Features — all fell within the 77.50%–79.00% range, reflecting broadly positive evaluations across all quality aspects.

Customer Loyalty similarly recorded an average score of 79.04%, also classified as "Satisfied." The three measured dimensions — repurchase (78.10%), loyalty (78.70%), and referral (80.30%) — collectively indicate that customers demonstrate solid loyalty behavior, including a tendency to return for repeat purchases, continued product use, and willingness to recommend the brand to others.

The F-test confirmed a computed F-value of 30.004, exceeding the critical F-table value of 3.94 with a significance level below 0.05. This indicates that product quality significantly affects customer loyalty when evaluated collectively.

These findings underscore the critical role that product quality plays in cultivating customer loyalty. Excellence across dimensions such as taste, aesthetics, service, and consistency fosters consumer satisfaction, which in turn encourages loyal purchasing behavior. Notably, the dominance of the 26–35 age group among respondents suggests that this productive demographic — while discerning in their evaluations — remains highly responsive to product quality, making them a pivotal segment in the formation of long-term customer loyalty.

In conclusion, the regression model employed in this study is validated as a reliable framework for explaining the relationship between product quality and customer loyalty. The various quality dimensions — including performance, features, durability, aesthetics, and service — collectively account for meaningful variation in loyalty outcomes. The strong F-statistic and near-zero significance value together affirm the robustness and explanatory power of the model.

CONCLUSION

This study concluded that product quality had a positive and significant effect on customer loyalty at Groei Coffee Bandung, as evidenced by the regression equation $Y = 13.289 + 0.250X$, indicating that each unit increase in product quality increased customer loyalty by 0.250 units, and supported by the t-test result ($t = 5.478 > 1.660$; significance = $0.000 < 0.05$), confirming the acceptance of H_1 and rejection of H_0 . The average score for product quality was 79.02% ("satisfied"), with the highest dimensions being perceived quality (80.70%) and reliability (80.50%), while customer loyalty averaged 79.04% ("satisfied"), with referrals scoring highest at 80.30%, suggesting strong customer willingness to recommend the brand.

The coefficient of determination ($R^2 = 0.234$) indicated that 23.4% of customer loyalty was explained by product quality, while 76.6% was influenced by other factors. These findings emphasized that maintaining and improving product quality—particularly in taste consistency, reliability, and presentation aesthetics—was a key strategy for strengthening customer loyalty. Future research should examine additional variables such as service quality, price perception, and overall customer experience to provide a more comprehensive understanding of the factors influencing customer loyalty.

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