



The Influence of Service Quality and Brand Image on Increasing Mobile Phone Sales at Mitracell Store, Sibolga

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ABSTRACT

This study aims to analyze the effect of Service Quality and Brand Image on mobile phone sales at Mitracell Store in Sibolga. The research employed a quantitative approach with a descriptive associative design. The population consisted of 300 consumers, with 45 respondents selected as the research sample. Data analysis was conducted through classical assumption tests (normality, heteroscedasticity, and multicollinearity tests), as well as correlation coefficient analysis, coefficient of determination (R^2), multiple linear regression analysis, partial tests (t-test), and simultaneous testing (F-test/ANOVA). The findings indicate that Service Quality has a moderate positive correlation with Sales ($r = 0.448$), while Brand Image shows a low positive correlation with Sales ($r = 0.357$). The multiple regression equation obtained is $Y = 18.325 + 0.483X_1 + 0.016X_2$. Partially, Service Quality ($t = 1.963 < 2.016$; $p = 0.056 > 0.05$) and Brand Image ($t = 0.073 < 2.016$; $p = 0.942 > 0.05$) do not have a statistically significant effect on Sales. The coefficient of determination (R^2) of 0.201 indicates that 20.1% of the variation in Sales can be explained by Service Quality and Brand Image, while the remaining 79.9% is influenced by other factors outside the research model. However, simultaneously, Service Quality and Brand Image have a significant effect on Sales ($F = 5.277 > 3.21$; $p = 0.009 < 0.05$).

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INTRODUCTION

Nowadays, many companies and organizations recognize the importance of being customer-oriented in all marketing activities. Customers are considered crucial because they determine the sustainability of an organization. This necessitates that every business actor actively works to attract and retain consumer interest in the products offered. The purchasing decision is a process in which consumers pass through five stages: problem recognition, information search, evaluation of alternatives, purchase decision, and post-purchase behavior. This process begins well before the actual purchase and has lasting effects afterward.

A decline in consumer purchases can be influenced by brand image. Brand image refers to the perception or impression that is embedded in consumers' minds. The better the perception of a company's brand image in consumers' minds, the higher the trust and confidence in that brand (Damayanti, 2015). Conversely, a poor perception of the brand leads to reduced consumer trust and confidence.

In addition to brand image, service quality provided to consumers is also a critical factor in influencing purchase decisions. Service quality is evaluated by consumers based on both the process and the outcome of service delivery, and whether it meets their expectations. Ultimately, the perception of service quality varies among consumers according to their individual expectations and preferences (Adam, 2015).

The complexity of competition compels every company to continuously improve service quality to achieve consumer satisfaction. Service quality must be assessed from the consumer's perspective, which is essential when designing a new management system (Agustiani & Samiono, 2015). Key factors in improving service quality include ensuring that every service provider delivers the best possible service to consumers.

At Mitracell Store in Sibolga, marketing strategies are closely related to sales performance. Effective marketing strategies can lead to increased sales, as online marketing allows products to reach a broader audience and increases the likelihood of purchases. Brand image attracts consumer attention and encourages product purchases, while convenient credit systems make it easier for consumers to acquire products without unnecessary hassle.

Currently, mobile phone sales at Mitracell Store in Sibolga fluctuate and show limited growth. This is caused by strong competition from other retailers offering similar products, as well as reduced store visits

during the pandemic. Sales tend to be relatively low because consumers prioritize other needs over purchasing mobile phones. Although mobile phones remain in demand, the abundance of competing stores selling similar products further impacts sales performance.

METHODS

This study employed a quantitative approach with an explanatory research design, aiming to describe and analyze the relationships and effects among the variables under investigation. The population of this study consisted of 310 consumers of Mitracell Store in Sibolga. The sample was determined using a 15% sampling technique, resulting in 45 respondents as the research sample.

Data were collected through observation, interviews, and the distribution of structured questionnaires to respondents. The collected data were analyzed using multiple linear regression analysis to determine the influence of the independent variables on the dependent variable, with the regression equation formulated as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

where:

Y= Sales Performance

X₁= Service Quality

X₂= Brand Image

α= Constant

β₁, β₂= Regression Coefficients

ε= Error Term

The indicators of sales performance, based on Basu Swastha and cited from Gusrizaldi & Komalasari (2016:293), include:

- a. Selling conditions and capabilities
- b. Market conditions
- c. Capital
- d. Organizational conditions of the company

The conceptual framework illustrates the hypothesized relationships between service quality and brand image as independent variables, and sales performance as the dependent variable, serving as the basis for testing the research hypotheses.

RESULTS AND DISCUSSION

Normality Test

The normality of the data was examined using the Histogram and Normal Probability Plot (Normal P-P Plot). The histogram showed a bell-shaped distribution, indicating that the data are normally distributed. Additionally, the Normal P-P Plot revealed that the data points were distributed along the diagonal line, suggesting that the variables—Service Quality (X₁), Brand Image (X₂), and Sales (Y)—follow a normal distribution.

Furthermore, the One-Sample Kolmogorov-Smirnov test was conducted. The results indicated an Asymp. Sig. (2-tailed) of 0.863, which is greater than the significance level of 0.05. The Kolmogorov-Smirnov Z value was 0.601, smaller than the critical Z value of 1.97 at the 5% significance level. These results confirm that the data meet the normality assumption required for multiple linear regression analysis.

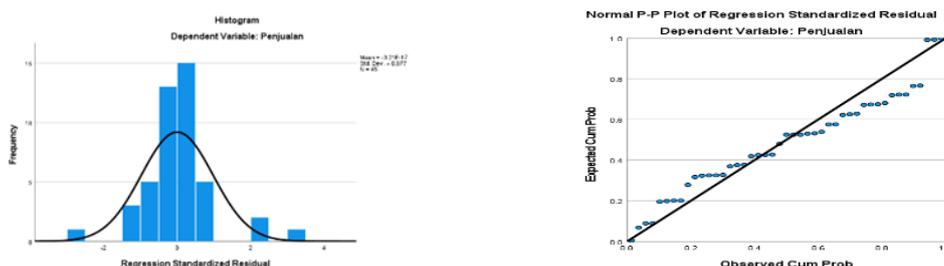


Figure 1. Histogram and Normal P-P Plot

In addition to graphical analysis, the normality of the data was tested using the One-Sample Kolmogorov-Smirnov test. The results showed an Asymp. Sig. (2-tailed) value of 0.863, which is greater than the significance level of 0.05. Moreover, the Kolmogorov-Smirnov Z value was 0.601, which is smaller than the critical Z value of 1.97 at the 5% significance level.

Table 1. One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		45
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	3.76202613
Most Extreme Differences	Absolute	.162
	Positive	.162
	Negative	-.113
Test Statistic		.162
Asymp. Sig. (2-tailed) ^c		.005
Monte Carlo Sig. (2-tailed) ^d	Sig.	.004
	99% Confidence Interval	Lower Bound .003
		Upper Bound .006

Based on these results, it can be concluded that the data are normally distributed, thereby satisfying one of the classical assumptions required for multiple linear regression analysis.

Heteroscedasticity Test

The heteroscedasticity test using a scatterplot showed that the residuals were randomly dispersed around zero without forming any specific pattern. This indicates that there is no heteroscedasticity in the regression model, confirming that the classical assumption of constant variance is met and the model is suitable for further analysis.

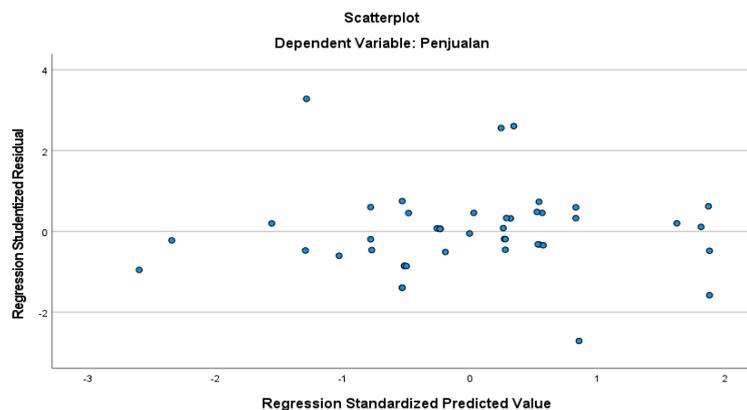


Figure 2. Scatterplot of Residuals

Multicollinearity Test

Table 2. Multicollinearity Test Results

Variable	Collinearity Statistics	
	Tolerance	Tolerance
Service Quality (X ₁)	0.387	2.585
Brand Image (X ₂)	0.387	2.585

Based on the results in Table 2, the tolerance values for both independent variables, Service Quality (X₁) and Brand Image (X₂), are 0.387. The Variance Inflation Factor (VIF) for both variables is 2.585. Since the tolerance values are greater than 0.10 and the VIF values are less than 10, it can be concluded that there is no

multicollinearity among the independent variables in the regression model. Therefore, the regression model meets the classical assumption of multicollinearity and is suitable for further analysis.

Correlation Analysis

Table 3. Correlation Coefficients

		Service Quality	Brand Image	Sales
Correlations				
Service Quality	Pearson Correlation	1	.783**	.448**
	Sig. (2-tailed)		.000	.002
	N	45	45	45
Brand Image	Pearson Correlation	.783**	1	.357*
	Sig. (2-tailed)	.000		.016
	N	45	45	45
Sales	Pearson Correlation	.448**	.357*	1
	Sig. (2-tailed)	.002	.016	
	N	45	45	45

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Based on the results presented in Table 3, the correlation coefficient between Service Quality (X_1) and Sales (Y) is 0.448 with a significance value of 0.002 (< 0.05), indicating a positive and significant relationship with a moderate correlation strength. Meanwhile, the correlation coefficient between Brand Image (X_2) and Sales (Y) is 0.357 with a significance value of 0.016 (< 0.05), indicating a positive and significant relationship with a low correlation strength.

Thus, both independent variables exhibit a positive and significant relationship with Sales, although the strength of the relationship differs, with Service Quality showing a stronger association than Brand Image.

Coefficient of Determination

Based on the results of the coefficient of determination test presented in Table 4, the R Square value is 0.201. This indicates that 20.1% of the variation in Sales (Y) can be jointly explained by the independent variables, Service Quality (X_1) and Brand Image (X_2). The remaining 79.9% of the variation is influenced by other factors not included in this study.

Table 4. Coefficient of Determination Output

Model Summary^b						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.448 ^a	.201	.163	3.85056	2.131	

a. Predictors: (Constant), Brand Image, Service Quality

b. Dependent Variable: Sales

The Adjusted R Square value of 0.163 indicates that, after adjusting for the number of variables and sample size, the model’s ability to explain the variation in Sales is 16.3%. Therefore, it can be concluded that the combined contribution of Service Quality and Brand Image to Sales falls within the low-to-moderate category.

Multiple Linear Regression Analysis

Table 5. Regression Coefficients and Hypothesis Testing (t-test)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
		1	(Constant)	18.325		
	Service Quality (X_1)	.483	.246	.435	1.963	.056
	Brand Image (X_2)	.016	.213	.016	.073	.942

Table 5 presents the results of the multiple linear regression analysis and the hypothesis testing (t-test). Based on the analysis, the regression equation can be formulated as follows:

$$Y = 18,325 + 0,483X_1 + 0,016X_2$$

The interpretation of the regression coefficients is as follows:

1. The constant value of 18.325 indicates that if the independent variables, Service Quality (X_1) and Brand Image (X_2), are zero or held constant, the predicted Sales (Y) at Toko Mitracell Sibolga would be 18.325 units.
2. The regression coefficient for Service Quality (X_1) is 0.483, indicating a positive effect on Sales. This means that a one-unit increase in Service Quality, assuming other variables remain constant, would increase Sales by 0.483 units. However, the significance value is 0.056 (> 0.05), indicating that the effect is not statistically significant at the 5% level.
3. The regression coefficient for Brand Image (X_2) is 0.016, also indicating a positive effect on Sales. A one-unit increase in Brand Image, holding other variables constant, would increase Sales by 0.016 units. Nevertheless, the significance value is 0.942 (> 0.05), indicating that this effect is also not statistically significant.

Thus, while both independent variables have a positive direction of influence on Sales, neither variable shows a statistically significant effect at the 5% significance level.

Partial Test (t-test)

Based on the results of the partial t-test, the t-table value is 2.016. The findings for each variable are as follows:

- a. Service Quality (X_1) has a t-count value of 1.963 with a significance (p-value) of 0.056 (> 0.05). Since the t-count is less than the t-table and the significance value is greater than 0.05, the null hypothesis (H_0) is accepted, and the alternative hypothesis (H_a) is rejected. Therefore, Service Quality does not have a significant partial effect on Sales at Toko Mitracell Sibolga.
- b. Brand Image (X_2) has a t-count value of 0.073 with a significance (p-value) of 0.942 (> 0.05). Since the t-count is less than the t-table and the significance value is greater than 0.05, the null hypothesis (H_0) is accepted, and the alternative hypothesis (H_a) is rejected. Hence, Brand Image also does not have a significant partial effect on Sales at Toko Mitracell Sibolga.

Based on these results, it can be concluded that both independent variables, when tested individually, do not have a statistically significant effect on Sales at the 5% significance level.

Simultaneous Test (F-test)

Table 6. Simultaneous Test Results (ANOVA)

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	156.475	2	78.238	5.277	.009 ^b
	Residual	622.725	42	14.827		
	Total	779.200	44			

a. Predictors: (Constant), Brand Image, Product Quality

b. Dependent Variable: Sales

Based on the results of the simultaneous test (F-test) presented in Table 6, the calculated F value is 5.277 with a significance level (p-value) of 0.009 (< 0.05). Meanwhile, the F-table value is 3.21. Since F-count $>$ F-table and the significance value is less than 0.05, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_a) is accepted.

Therefore, it can be concluded that simultaneously, Service Quality (X_1) and Brand Image (X_2) have a significant effect on Sales at Toko Mitracell Sibolga. This indicates that the two independent variables together make a significant contribution to increasing Sales, even though individually they may not show significant effects.

Discussion

This study is in line with previous research conducted by Ecstasia and Maftukah (2018), entitled “The Influence of Brand Image and Perceived Service Quality on Purchase Decisions Through Brand Loyalty at Riez Palace Hotel Tegal.” Their findings indicated that brand image and perceived service quality affect purchase decisions. Similarly, in this study, both Service Quality and Brand Image were found to have a significant effect on Sales. However, the partial effects differ, as Service Quality did not show a significant effect individually, and Brand Image also did not have a significant individual effect on Sales.

Similarly, Sitio (2019), in the study “The Effect of Service Quality and Brand Image on Purchase Decisions,” found that both service quality and brand image influenced purchase decisions. Moreover, Ade Syarif Maulana (2016) reported that brand image has a positive and significant partial effect on consumer satisfaction. Additionally, Trisnawati and Pangestika (2018) concluded that service quality, brand image, and product quality all significantly influence increased sales.

These findings suggest that while each factor may not always show significant influence individually, together they contribute meaningfully to sales performance, emphasizing the importance of a combined strategic focus on both service quality and brand image in retail management.

CONCLUSION

The results of this study indicate that Service Quality has a moderate positive relationship with Sales ($r = 0.448$), while Brand Image has a low positive relationship with Sales ($r = 0.357$). The multiple regression analysis produced the equation $Y = 18.325 + 0.483X_1 + 0.016X_2$, showing that both Service Quality and Brand Image have a positive influence on Sales. The coefficient of determination (R^2) is 0.201, which means that 20.1% of the variation in Sales can be explained by Service Quality and Brand Image, while the remaining 79.9% is affected by other factors outside the scope of this study. Partially, neither Service Quality nor Brand Image has a statistically significant effect on Sales ($p > 0.05$). However, simultaneously, the two variables have a significant effect on Sales, as indicated by the F-test ($F_{\text{calculated}} = 5.277 > F_{\text{table}} = 3.21$; $p < 0.05$). This suggests that while individually the effects of Service Quality and Brand Image may not be significant, together they contribute meaningfully to increasing Sales at Mitracell Sibolga.

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