

ANALYSIS OF SERVICE QUALITY ON SHOPEE CUSTOMER SATISFACTION IN BANDA ACEH

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Abstract

The exponential proliferation of digital technological infrastructures has catalyzed the substantial expansion of the e-commerce sector as a predominant transactional modality. Shopee, recognized as a preeminent digital marketplace within the Indonesian digital ecosystem, provides sophisticated accessibility, extensive operational reach, and transactional optimization for its user base. Notwithstanding, persistent service quality concerns persist, particularly within the Banda Aceh geographical context. These critiques predominantly encompass service responsiveness and logistical delivery temporal parameters, which significantly influence customer satisfaction dynamics. The empirical data underwent rigorous statistical analysis to elucidate the intricate dynamics of Service Quality and Customer Satisfaction within the e-commerce ecosystem. Quantitative findings reveal that Shopee's Service Quality demonstrates a statistically significant correlation with customer satisfaction among Banda Aceh's consumer demographic. Specifically, the responsiveness and reliability dimensions emerge as pivotal determinants influencing customer satisfaction trajectories. These dimensional insights potentially constitute a strategic framework for augmenting customer satisfaction and cultivating long-term consumer loyalty. The research aims to generate actionable recommendations for Shopee, facilitating targeted service quality optimization aligned with region-specific consumer expectations in Banda Aceh.

Keywords: Customer Satisfaction, E-commerce, Service Quality and SERVQUAL

Introduction

Technological advancements catalyze transformative innovations within commercial ecosystems, particularly through digital transaction platforms like e-commerce, which substantially reconfigure interpersonal economic interactions. Contemporary digital infrastructures enable sophisticated transactional mechanisms characterized by enhanced seller-buyer connectivity, expansive market penetration, streamlined operational protocols, and asynchronous engagement modalities that significantly optimize economic efficiency (Sugiharto, 2022). These multidimensional indicators demonstrate intricate correlations with service quality parameters, profoundly influencing consumer experiential trajectories and satisfaction metrics. The conceptual framework of service quality, operationalized through the SERVQUAL methodology, provides a sophisticated analytical lens for comprehending these complex relational dynamics. Scholarly discourse, as articulated by Kotler, Keller, and Chernev (2022, cited in Mauliza & Zuhra, 2024), posits that customer satisfaction represents a pivotal mechanism for cultivating enduring organizational-consumer relationships and engendering sustained loyalty paradigms.

The predominant e-commerce platform in Indonesia, Shopee, demonstrates extensive market penetration and innovative digital transactional infrastructure, incorporating cash-on-delivery payment mechanisms and efficient logistical distribution. Despite achieving market leadership, the platform encounters service quality challenges, particularly in peripheral urban regions like Banda Aceh City. Consequently, this research will critically examine Shopee's service quality indicators and their consequential impact on Customer Satisfaction, utilizing the SERVQUAL methodological framework to analyze performance dynamics.

Extant scholarly investigations have demonstrated that service quality exerts a substantial influence on customer satisfaction, as substantiated by Lovitasari's empirical research (2023). Notwithstanding, scholarly discourse regarding Shopee's service quality within geographically constrained regions, exemplified by Banda Aceh City, remains predominantly unexplored. Considering the province's strategic geographical positioning at Indonesia's westernmost periphery, scholarly inquiries have predominantly concentrated on service quality's temporal delivery dimensions. In addition, factors such as free shipping

promotions are an attraction for consumers in this area considering that shipping costs to Sumatra Island, especially Aceh, are more expensive than to Java Island due to distance factors. Based on this background, several problem formulations can be summarized, such as how is the level of Shopee's service quality in Banda Aceh City using the SERVQUAL dimension?, how does Shopee's service quality affect customer satisfaction in Banda Aceh City?, and what are the recommendations for Shopee to improve service quality, especially in certain areas?. And this study aims to analyze the level of Shopee's service quality in Banda Aceh City using the SERVQUAL dimension, identify the effect of Shopee's service quality on customer satisfaction in Banda Aceh City and provide recommendations for Shopee in improving its service quality in certain areas.

Methods

This scholarly investigation employs a rigorous quantitative methodology to elucidate the intricate correlational dynamics between service quality (independent variable X) and customer satisfaction (dependent variable Y). The quantitative research paradigm was strategically selected due to its capacity for objective statistical data processing and inter-variable relationship analysis (Sugiyono, 2017 in Rachman, 2024). The methodological framework was systematically implemented to quantitatively assess and substantiate the relational constructs through empirically collected respondent-generated data. The survey methodology, operationalized through a meticulously designed questionnaire, serves as the primary investigative instrument in this academic exploration.

Empirical data were systematically aggregated through a survey instrument distributed to 150 participants, selected via purposive sampling targeting active Shopee users in Banda Aceh over the preceding six months. The research questionnaire was constructed around SERVQUAL dimensions reliability, responsiveness, assurance, empathy, and tangibles and evaluated using a quintile Likert scale ranging from strongly disagree (1) to strongly agree (5). This methodological approach facilitated efficient, comprehensive data collection from a targeted respondent demographic within a condensed temporal framework, ensuring methodological rigor and research precision. (Sekaran and Bougie, 2016).

The empirical data underwent comprehensive statistical analysis utilizing IBM SPSS Statistica 26 (Statistical Program for Social Sciences), employing Descriptive Statistical Test methodologies. This analytical approach systematically elucidates the dataset's fundamental characteristics, encompassing measures of central tendency, dispersion metrics, and frequency distribution across questionnaire dimensions (Sugiyono, 2017; Rachman, 2024). The investigation critically examines the intricate relationship between Shopee's service modalities and customer satisfaction within the Banda Aceh metropolitan context.

A Linear Regression Analysis was meticulously conducted to ascertain the potential correlational dynamics between service quality (independent variable X) and customer satisfaction (dependent variable Y). The research conceptualizes service quality as the primary explanatory construct, with customer satisfaction representing the consequential outcome variable (Aslichati et al., 2022).

Hypothesis Verification through Partial t-Test methodology was implemented to rigorously evaluate the statistically significant interrelationship between Shopee's service quality parameters and customer satisfaction metrics in the Banda Aceh urban environment. This analytical approach facilitates nuanced examination of individual variable influences (Nuryadi et al., 2017). Correlation analysis was subsequently employed to quantitatively assess the interdependence between the designated research variables (Sukmono, 2023).

Results and Discussions

Respondent Characteristics

A comprehensive sample of 150 participants was systematically selected, meeting the predetermined criteria of being active Shopee platform users who conducted product purchase transactions within the preceding six-month period in the Banda Aceh metropolitan region.

Table 1 Description of Research Respondents Based on Age

Age	Number	Percentage (%)
18-24 years	51	34,0
25-34 years	85	56,7
35-44 years	11	7,3
45 years >	3	2,0
Total	150	100

Source: Data Processing Result, 2024

In accordance with Table 1, data substantiates that the predominant demographic cohort comprises research participants aged 25-34 years, representing 85 individuals, which constitutes approximately 56.7% of the total sample. Regarding the gender distribution of research participants, detailed specifications are delineated in the subsequent tabular representation.

Table 2 Description of Research Respondents Based on Gender

Gender	Total	Percentage (%)
Male	61	40,7
Female	89	59,3
Total	150	100

Source: Data Processing Result, 2024

According to Table 2, data analysis reveals that the female demographic predominates, comprising 89 individuals, representing approximately 59.3% of the respondent population. The occupational demographic segmentation is subsequently delineated in the accompanying tabular representation.

Table 3 Description of Research Respondents Based on Occupation

Occupation	Total	Percentage (%)
Government Worker	8	5,3
Student	24	16,0
Private Employee	100	66,7
Entrepreneur	15	10,0
Others	3	2,0
Total	150	100

Source: Data Processing Result, 2024

Analyzing the data presented in Table 3 reveals that the predominant occupational demographic comprises private sector employees, constituting precisely 100 individuals, representing 66.7% of the total research sample.

Descriptive Statistical Test

Descriptive statistical analysis systematically interprets empirical data, providing comprehensive insights into collected information sets (Sugiyono, 2017). The methodology employs statistical parameters for precise data characterization:

Table 4 Descriptive Statistical Test Results

Variabel	N	Minimum	Maximum	Mean	Std. Deviation
Service Quality	150	11	48	38.27	6.002
Customer Satisfaction	150	5	20	15.42	2.747
Valid N (listwise)	150				

Source: Data Processing Result, 2024

The empirical analysis, utilizing a representative sample of 150 participants, revealed nuanced insights into service quality and customer satisfaction metrics. The service quality dimension exhibited a variance ranging from 11 to 48, with a standard deviation of 6.00 notably compact relative to the arithmetic mean of 38.27. This statistical distribution substantiates the cohesive clustering of respondent perceptions around the central tendency. Correspondingly, customer satisfaction parameters demonstrated a distribution spanning from 5 to 20, characterized by a mean score of 15.42 and a standard deviation of 2.75. These quantitative findings substantiate the relative homogeneity of Shopee's Service Quality and Customer Satisfaction constructs, indicating remarkable consistency in perceived service parameters.

Interpretation of Shopee's Service Quality Level in Banda Aceh City with SERVQUAL Dimensions

The empirical investigation reveals that 150 participants from Banda Aceh City evaluated the service quality of Shopee across multiple SERVQUAL dimensional constructs, generating a comprehensive assessment of the platform's performance metrics.

Table 5 Results of Descriptive Statistical Tests for Each Service Quality Dimension (SERVQUAL)

Dimension	Mean	St. Deviasi	Interpretation
Reliability	3,8	0,9	Shopee is considered sufficient in meeting customer expectations in timely delivery and appropriate products
Responsiveness	3,8	0,9	Shopee's service is quite responsive in handling customer complaints and questions
Assurance	3,8	0,9	Customers feel safe in transacting on Shopee and get clear payment method information
Empathy	3,8	0,9	Customers feel that Shopee understands some of their preferences and handles complaints well
Tangibles	3,8	0,9	Customers are satisfied with the easy-to-use application display

Source: Data Processing Result, 2024

The average (mean) of 3.8 (from a Likert scale of 1-5) indicates that customer perceptions of the service quality dimension (SERVQUAL) are at a fairly good level. However, this score still needs improvement and is still below the maximum score, namely (4.5 - 5.0) to reach a good or very good level. Meanwhile, in terms of standard deviation, it shows a value of (0.9) which indicates variation in opinions among respondents. Most respondents gave a fairly positive assessment around the number (3.8), but there was a small group of respondents who gave a low or higher assessment.

Simple Linear Regression Test**Table 6 Simple Linear Regression Test Results**

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.856	1.015		2.813	.000
	Service Quality	.328	.026	.717	12.523	.000

a. Dependent Variable : Customer Satisfaction

Source: Data Processing Result, 2024

To ascertain the linear regression equation delineating the correlation between Service Quality and Customer Satisfaction, the subsequent regression coefficient investigation was systematically conducted:

$$Y = a + bx$$

$$Y = 2.856 + 0.328 X$$

Where:

X = Service Quality

Y = Customer Satisfaction

Based on the regression equation's analytical interpretation, the following observations can be delineated: The intercept parameter (α) of 2.856 signifies that in the absence of independent variable fluctuations, the dependent variable maintains a baseline value of 2.856. Correspondingly, the regression coefficient (β_1) of 0.328 demonstrates that a marginal increment in the independent variable precipitates a proportional 0.328 unit augmentation in the dependent variable.

Hypothesis Testing

The partial t-test constitutes a sophisticated statistical procedure employed to ascertain the statistically significant impact of a discrete independent variable on the dependent variable within a linear regression framework, subsequent to implementing comprehensive covariate control. This methodological approach facilitates rigorous examination of the marginal explanatory power of an individual predictor, simultaneously mitigating potential confounding influences from alternative independent variables.

Table 7 Partial T-Test

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.856	1.015		2.813	.000
	Service Quality	.328	.026	.717	12.523	.000

a. Dependent Variable : Customer Satisfaction

Source: Data Processing Result, 2024

The empirical evaluation of Service Quality (X1) reveals a t-statistic of 12.523. Subsequently, to ascertain the critical t-value, researchers consulted the t-distribution table, utilizing $\alpha/2 = 0.025$ and degrees of freedom $df = N - k - 1$, calculated as $150 - 1 - 1 = 148$, which yielded a critical value of 1.976. Given that the computed t-statistic (12.523) substantially exceeds the critical threshold (1.976), and the associated significance level (Sig.) registers $0.000 < 0.05$, the analysis substantiates a statistically significant correlation between Service Quality and Customer Satisfaction within the E-commerce domain.

Correlation Test

The Correlation Coefficient Analysis delineates the quantitative interrelationship between service quality dimensions and customer satisfaction parameters. This statistical examination employs the Pearson product-moment correlation methodology to ascertain the systematic associations between the aforementioned variables.

Table 8 Correlation Coefficient Test Results

Correlations			
		Service Quality	Customer Satisfaction
Service Quality	Pearson Correlation	1	.717**
	Sig. (2-tailed)		.000
	N	150	150
Customer Satisfaction	Pearson Correlation	.717**	1
	Sig. (2-tailed)	.000	
	N	150	150

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

Source: Data Processing Result, 2024

Utilizing the aforementioned tabular data, empirical analysis reveals a Pearson correlation coefficient of 0.717 between Service Quality (X) and Customer Satisfaction (Y). This statistically significant correlation indicates a robust, positively correlated relationship between the aforementioned variables.

Coefficient of Determination Methodology: This analytical approach quantifies the extent of independent variable influence on the corresponding dependent variable. The determination coefficient is mathematically computed through the subsequent algebraic formulation:

$$Kd = r^2 \times 100\%$$

$$Kd = 0.514 \times 100\% = 51.4\%$$

Where:

Kd = Determination Coefficient

r = Correlation Coefficient

Table 9 Determination Coefficient Test Results

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.717 ^a	.514	.511	1.921
a. Predictors : (Constant), Service Quality				
b. Dependent Variable : Customer Satisfaction				

Source: Data Processing Result, 2024

Based on the empirical findings, the coefficient of determination (R^2) demonstrates a value of 0.514, equivalent to 51.4%, which can be systematically interpreted as indicating that the independent variable (X) exerts a 51.4% explanatory influence on the dependent variable (Y). Consequently, the residual 48.6% of variance can be attributed to exogenous variables beyond the immediate research scope, potentially encompassing factors such as pricing strategies, promotional interventions, or alternative contextual determinants.

Discussions

Based on the results of a study conducted on 150 respondents (active Shopee users in Banda Aceh City in the last six months), the respondents' responses can be seen regarding the variables submitted in the questionnaire that has been distributed online. Respondents' responses are explained in the following discussion:

Shopee Service Quality Level Based on SERVQUAL Dimensions

In this scholarly investigation, the descriptive analysis reveals that Shopee's service quality in Banda Aceh Municipality, assessed through SERVQUAL dimensions, registers 3.8 points on a Likert-type scale, interpreted as "moderately satisfactory". Despite this assessment, the metric remains beneath the "superior" performance threshold. Empirical evidence suggests that robust service quality not only facilitates Customer Satisfaction but simultaneously promotes consumer loyalty within the E-commerce ecosystem (Ariani, 2023). Analyzing dimensional constructs reliability, responsiveness, assurance, empathy, and tangibles exhibits a consistent mean of 3.8 with a minimal standard deviation, indicating nuanced perceptual variations among respondents. Mowen and Minor (1998) discussed the Trait Theory. He stated, "Consumers can be distinguished based on their prominent characteristics," (Mowen and Minor 1998, as quoted in Sumarwan, 2022, p.2.30). From these results, it can be concluded that Shopee has generally met customer expectations, although there is still a little gap for improving the responsiveness and empathy aspects and can overcome the gap in customer expectations.

The Effect of Shopee Service Quality on Customer Satisfaction in Banda Aceh City

In this scholarly investigation, a rigorous linear regression methodology was implemented, demonstrating that Service Quality exerts a statistically significant and positive impact on Customer Satisfaction. The regression coefficient substantiates this assertion through the equation $Y = 2.856 + 0.328 X$. Specifically, the coefficient of 2.856 indicates that incremental enhancements in Service Quality correspond to proportional increases in Customer Satisfaction, with each unit improvement yielding a 0.328-point elevation (Rijayana, 2024). Empirical analysis reveals a robust correlation between the Service Quality and Customer Satisfaction variables, substantiated by a correlation coefficient of 0.717 and a determination coefficient of 51.4%. This quantitative evidence suggests that Service Quality accounts for 51.4% of Customer Satisfaction variance, while the residual 48.6% can be attributed to alternative contextual factors such as pricing strategies, promotional interventions, or individual consumer preferences. These findings converge with established theoretical frameworks in E-commerce research, specifically aligning with the seminal SERVQUAL model proposed by Parasuraman et al. (1988), which posits that superior service quality fundamentally influences customer satisfaction outcomes (Ariani, 2023).

Strategy for Improving E-commerce Service Quality

Pursuant to empirical investigations, the comprehensive evaluation of Shopee's service quality in Banda Aceh City, utilizing the SERVQUAL methodology's quintessential dimensions (reliability, responsiveness, assurance, empathy, and tangibles), yielded a mean score of 3.8. This quantitative assessment suggests that the organizational service quality resides within a "moderately satisfactory" spectrum, necessitating strategic interventions to elevate performance towards superior service excellence. The reliability

dimension, such as punctuality of delivery, and the tangibles dimension in terms of the condition of the product received or ease of accessing the application are the main concerns of customers. This supports the importance of improving technology-based and operational services. Shopee is advised to pay more attention to preferences based on customer needs in the Banda Aceh City area. The empathy dimension needs to be improved to handle and provide solutions related to unique customer complaints according to local geographic and cultural conditions. Improvement in the tangibles dimension is also a priority to ensure responsive applications that can be accessed smoothly on various devices and varying internet connections. In the long term, Shopee can adopt an analytical data-based approach to predict customer trends and needs, so that e-commerce parties can develop marketing strategies and improve customer satisfaction in areas with similar characteristics. Improving service quality with a strategy that focuses on local customer needs can help Shopee increase customer satisfaction and maintain customer loyalty in Banda Aceh City.

Conclusion

Synthesizing the analytical outcomes and scholarly discourse, this investigation substantiates that the service quality evaluation of Shopee within Banda Aceh City assessed through SERVQUAL dimensional frameworks encompassing reliability, responsiveness, assurance, empathy, and tangibles demonstrates a predominantly satisfactory performance profile. The empirical findings elucidate that responsiveness and reliability emerge as preeminent determinants shaping customer perceptual constructs. The research substantiates that Shopee's service quality exerts a substantial correlation with Customer Satisfaction in the specified metropolitan context. Notably, the service responsiveness and delivery reliability dimensions substantially contribute to consumer satisfaction metrics. Empirically, the findings reveal that 48.6% of Customer Satisfaction variance remains attributable to exogenous factors beyond service quality parameters. Consequently, the scholarly recommendation advocates for subsequent investigative endeavors incorporating supplementary variables such as promotional strategies, pricing mechanisms, or comprehensive consumer experience frameworks to enhance analytical comprehensiveness within the E-commerce domain. Suggestions or Recommendations. Based on the research results, recommendations were obtained for Shopee, namely, to adopt an analytical data-based approach to predict customer trends and needs, so that e-commerce parties can develop marketing strategies and improve customer satisfaction in areas with similar characteristics. Improving service quality with a strategy that focuses on local logistics efficiency can help Shopee improve customer satisfaction and maintain customer loyalty in Banda Aceh City.

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