



Cut to the chase: does service quality or customer satisfaction effectively improve customer loyalty in the internet provider industry?

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ABSTRACT

This study examines the influence of service quality and customer satisfaction on customer loyalty at PT. Telkom Indonesia's Ternate branch. Utilizing a quantitative approach, data were collected through a closed questionnaire from 70 customers who had directly interacted with Telkom's services. The data were analyzed using descriptive methods and SmartPLS to explore the relationships between service quality, customer satisfaction, and customer loyalty. The results indicate that tangible and reliable aspects of service quality significantly enhance customer loyalty, while responsiveness does not have a notable effect. Additionally, customer satisfaction does not significantly influence loyalty and does not mediate the relationship between service quality and loyalty. These findings suggest that Telkom Ternate should prioritize improving tangible and reliable service dimensions to boost customer loyalty. This research offers practical insights for service improvement strategies to strengthen customer retention.

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1. INTRODUCTION

In today's unpredictable markets, particularly within the Internet service provider (ISP) industry, maintaining customer loyalty requires strategic attention. Customer loyalty is a critical factor that influences a company's sales cycle, as retaining existing customers is just as important—if not more so—than acquiring new ones, particularly in the fast-paced world of technology, where market dynamics are constantly shifting (Rane et al., 2023). As Thangeda et al. (2024) emphasize, it is far more costly to attract new customers than to retain current ones, making customer retention a cornerstone for sustaining market share and profitability.

Telkom Ternate, however, faces challenges in fulfilling customer demand due to infrastructure limitations, such as the lack of fiber optic networks or maximum capacity constraints in certain areas. This issue represents a major challenge currently faced by the company, as confirmed by Telkom Ternate's management, who stated:

“There are various unsuccessful transactions. For example, some customers want to relocate their network, but there is no available fiber optic quota for such a move. Others wish to expand their network, but the fiber optic capacity in that area is already fully utilized” (Account Manager, Telkom Ternate).

Furthermore, this challenge has escalated due to the emergence of a new entrant in the internet service provider market, namely Starlink. The recent arrival of Starlink in Indonesia poses a potential threat to Telkom’s dominance in Ternate, as Starlink’s satellite-based service is capable of reaching remote and underserved regions (Abiyoso, 2024). This could provide customers with an appealing alternative to Telkom’s services. Given this heightened competition, the importance of maintaining customer loyalty at Telkom Ternate becomes increasingly clear. As Singh (2020) argues, customer loyalty reflects the likelihood that customers will continue doing business with a company, and Kotler et al. (2022) note that consistent delivery of quality products, services, and brand experiences fosters such loyalty.

Existing literature supports the idea that service quality significantly impacts customer loyalty, with customer satisfaction often serving as a mediating factor. For example, Phi & Huong (2023) identified strong correlations between service quality, satisfaction, and loyalty in the banking sector. Similarly, Ashiq and Hussain’s (2024) study on Pakistan’s e-commerce industry highlights the importance of service quality, trust, and satisfaction in fostering e-loyalty. These studies underscore the role of high-quality service delivery in retaining customers.

This study aims to examine the relationship between service quality, customer satisfaction, and customer loyalty at PT. Telkom Ternate. Specifically, it seeks to answer the following research questions: (1) How do service quality and customer satisfaction influence customer loyalty at Telkom Ternate? (2) How does service quality affect customer loyalty when customer satisfaction serves as a mediating variable? By investigating these questions, the study offers insights that can guide Telkom Ternate in enhancing service quality to strengthen customer retention amid increasing market competition.

Service quality refers to the ability of a service provider to meet customer expectations effectively, thereby enhancing business success (Ramya et al., 2019). As service quality improves, so too does customer satisfaction, contributing to stronger relationships between the company and its clients (Scherrer et al., 2023). Satisfied customers are more likely to maintain positive interactions with the business, whereas dissatisfied customers may turn to competitors in search of better alternatives (Aulijaa et al., 2020).

A study conducted by Septianna et al. (2022) indicates a significant positive relationship between overall service quality and customer satisfaction. Zygiaris et al. (2022) define customer satisfaction as the extent to which a customer feels fulfilled after receiving a service. However, while there is a strong correlation between service quality and satisfaction, these are distinct constructs that should be considered separately by service providers (Sureshchandar et al., 2002). In the context of online shopping, Ashiq and Hussain (2024) found that high service quality positively influences customer satisfaction. Similarly, Djunaid (2023) demonstrated through a study conducted in various settings, including restaurants and retail stores, that service quality significantly impacts customer satisfaction. Based on this, we propose the following hypothesis:

H1: Service quality (tangibility, responsiveness, and reliability) positively impacts customer satisfaction.

Customer satisfaction is widely used in the fields of business and commerce, representing a company’s measurement of how effectively its products and services meet customer expectations (Dimaro, 2023). Loyalty, however, extends beyond mere satisfaction with a product or service. It encompasses deeper levels of customer engagement, including advocacy and dedication, where customers view the product or

service as an extension of their own identity and take personal responsibility for its success (Kotler et al., 2022).

Mahmood et al. (2018) highlight that satisfaction with service is a crucial predictor of customer loyalty. In the banking sector, research by Phi and Huong (2023) demonstrates that heightened customer satisfaction directly contributes to increased loyalty, suggesting that banks must prioritize satisfaction to retain their customers. Similarly, Ashiq and Hussain (2024) found that customer satisfaction positively influences loyalty within the online shopping industry. Based on these insights, we propose the following hypothesis:

H2: Customer satisfaction has a positive impact on customer loyalty

Service quality plays a pivotal role in shaping customer loyalty (Moreira et al., 2017). Offering superior products and services strengthens customer relationships and enhances loyalty (Safi & Alagha, 2020). Makanyeza & Chikazhe (2017) emphasized that customer loyalty is positively influenced by service quality, satisfaction, and corporate image, suggesting that customers exhibit higher loyalty when service quality improves. Similarly, Srivastava and Rai (2014), in their study on the life insurance sector, concluded that customer loyalty is increasingly reliant on the level of service quality. Research by Kuswibowo and Tyasti (2023) further supports this, revealing a positive and significant impact of service quality on customer loyalty in the furniture industry. Additionally, Ashiq and Hussain's (2024) study in the online shopping sector confirms that service quality has a substantial effect on loyalty in digital markets. Therefore, we propose the following hypothesis:

H3: Service quality (tangible, responsiveness, and reliability) positively impacts customer loyalty.

Enhancing customer loyalty is essential for achieving long-term business success, as it is influenced by several key factors, including customer satisfaction, service quality, customer experience, and relationship management. Service quality remains one of the most impactful approaches to fostering both customer satisfaction and loyalty (Safi & Alagha, 2020). By focusing on building lasting relationships with existing customers and simultaneously attracting new ones through customer satisfaction strategies, businesses can significantly expand their market share (Hadiati & Ruci, 1999).

Wantara (2015) demonstrated that customer loyalty in the library sector is directly linked to service quality and customer satisfaction. Furthermore, Wantara (2015) argued that service quality serves as a foundation for satisfaction, which, in turn, mediates the relationship between service quality and loyalty. Mahmood et al. (2018) confirmed that customer satisfaction plays a positive mediating role in the relationship between service quality dimensions and customer loyalty. Likewise, Titan & Suasana (2023) found that satisfaction acts as a crucial mediator in the relationship between service quality and loyalty. Hence, we propose the following hypothesis:

H4: Customer satisfaction mediates the positive relationship between service quality (tangible, responsiveness, and reliability) and customer loyalty.

2. RESEARCH METHOD

This study employed a survey method to gather data, targeting Business, Government, and Enterprise (BGES) customers who have utilized Telkom Ternate's services, as they represent Telkom Ternate's primary clientele based on internet service sales value. According to company records, the population size was estimated at around 200 customers. A purposive sampling technique was employed, selecting only respondents who had experienced service failures based on Telkom Ternate's record. This sampling method focuses on individuals who possess specific information pertinent to the research, as they either directly encountered the service issues or met predefined criteria set by the researcher (Sekaran & Bougie, 2016).

To determine the appropriate sample size, the study followed Hair et al.'s (2022) recommendations, which advise calculating sample sizes based on expected path coefficients and significance levels. Considering a minimum path coefficient in the range of 0.21 to 0.30 and a desired significance level of 0.05, a minimum of 69 respondents was required to ensure sufficient statistical power in the PLS-SEM analysis. In this context, the PLS-SEM analysis was applied to evaluate the measurement model, focusing on item validity and construct reliability, as well as the structural model, which included hypothesis testing.

The respondent profile consists of a diverse demographic breakdown, including gender and age distribution. The total of 70 respondents in this study exceeds the minimum requirement of 69 samples, ensuring the statistical power necessary for the analysis, as shown in Table 1. Of the 70 respondents surveyed, a slightly higher proportion were male (52.9%), while female respondents made up 47.1%, indicating a fairly balanced gender representation. Regarding age, the majority of respondents were under 45 years old, with 31.4% in the age group of 20 to 25 years, followed closely by those aged 26 to 35 years (28.6%) and 36 to 45 years (28.6%). A smaller portion of respondents, 11.4%, were over 45 years old. This age distribution suggests a relatively youthful respondent base, with the largest concentration of participants being under 45.

Table 1. Respondents' Profile

Demographics	Freq	%
<i>Gender</i>		
Male	37	52.9
Female	33	47.1
<i>Age</i>		
<20-25 years old	22	31.4
26-35 years old	20	28.6
36-45 years old	20	28.6
>45 years old	8	11.4

Data collection utilized a closed-question questionnaire in which respondents were selected from pre-determined answer options. It was conducted through an online survey, in which questionnaires were sent to BGES customer representatives who had previously reported service disruptions to Telkom Ternate. A Likert scale was used to measure respondents' agreement with various statements, ranging from "strongly disagree" to "strongly agree" on a five-point scale (Sekaran & Bougie, 2016). Service quality was assessed across three dimensions: tangibility (T), responsiveness (R), and reliability (K), each measured using three items derived from a previous study conducted by Amoako et al. (2023). Moreover, customer satisfaction (CS) was evaluated using three items adapted from De Wulf et al. (2001), while customer loyalty (CL) was assessed through two items suggested by Kaura et al. (2015).

Table 2. Measurement Model Evaluation

Items	Outer Loadings	AVE	Fornell-Larcker Criterion	Composite Reliability
CL1	0.946			
CL2	0.927	0.877	0.937	0.873
CS1	0.957			
CS2	0.970			
CS3	0.970	0.933	0.966	0.945
K1	0.868			
K2	0.937			
K3	0.901	0.814	0.902	0.887
R1	0.856			
R2	0.794			
R3	0.842	0.691	0.831	0.780
T1	0.816			

T2	0.854			
T3	0.758	0.657	0.810	0.744

Table 2 provides an evaluation of the measurement model by analyzing the constructs of customer loyalty (CL), customer satisfaction (CS), responsiveness (R), and tangibility (T) through outer loadings, Average Variance Extracted (AVE), the Fornell-Larcker Criterion, and Composite Reliability. Following the guidelines from Hair et al. (2022), this assessment ensures the constructs meet validity and reliability standards. All items demonstrated outer loadings above 0.7, confirming strong indicator reliability. Regarding convergent validity, the AVE values for each construct exceeded the 0.5 threshold, signifying that each construct explains more than half of the variance, thus confirming their validity (Hair et al., 2022).

Additionally, discriminant validity was established through the Fornell-Larcker Criterion. The values reported are 0.937 for customer loyalty (CL), 0.966 for customer satisfaction (CS), 0.902 for reliability (K), 0.831 for responsiveness (R), and 0.810 for tangibility (T). These values show that each construct correlates more strongly with its own items than with any other constructs, further supporting discriminant validity (Hair et al., 2022). Furthermore, Composite Reliability values ranged from 0.744 to 0.945, indicating solid internal consistency across all constructs (Hair et al., 2022). Overall, these findings confirm the robustness, reliability, and validity of the measurement model employed in this study.

3. RESULTS AND DISCUSSIONS

Table 3 summarizes the results of a test of relationships between service quality dimensions (tangible, responsiveness, and reliability), customer satisfaction (CS), and customer loyalty (CL) that were evaluated using path coefficients, t-statistics, p-values, and R² values as suggested by Hair et al. (2022). Hypothesis H1a, which posited that tangibility (T) would positively impact customer satisfaction, was not supported ($\beta = 0.066$, $t = 0.618$, $p = 0.537$). In contrast, hypothesis H1b, which proposed that responsiveness (R) positively influences customer satisfaction, was supported ($\beta = 0.380$, $t = 2.135$, $p = 0.033$). Similarly, hypothesis H1c, suggesting a positive relationship between reliability (K) and customer satisfaction, was also supported ($\beta = 0.521$, $t = 3.095$, $p = 0.002$), with an R² value of 0.834, indicating that a significant proportion of the variance in customer satisfaction is explained by these variables.

Table 3. Hypotheses Testing

Hypotheses	Path Coeff.	t-stat	P-Values	Results	R-Square
H1a: T → CS	0.066	0.618	0.537	Not Supported	
H1b: R → CS	0.380*	2.135	0.033	Supported	
H1c: K → CS	0.521**	3.095	0.002	Supported	0.834
H2: CS → CL	0.076	0.484	0.628	Not Supported	
H3a: T → CL	0.284**	3.840	0.000	Supported	
H3b: R → CL	0.096	0.752	0.452	Not Supported	
H3c: K → CL	0.507**	2.812	0.005	Supported	
H4a: T → CS → CL	0.005	0.209	0.835	Not Supported	
H4b: R → CS → CL	0.029	0.436	0.663	Not Supported	
H4c: K → CS → CL	0.040	0.459	0.647	Not Supported	0.763

Note: * and ** denote significance levels of 5% and 1%, respectively.

For the relationship between customer satisfaction and customer loyalty (H2), the results showed no significant effect ($\beta = 0.076$, $t = 0.484$, $p = 0.628$), indicating that satisfaction alone may not directly translate into loyalty. However, in testing H3a, the results confirmed that tangibility positively impacts customer loyalty ($\beta = 0.284$, $t =$

3.840, $p = 0.000$). Hypothesis H3b, proposing a link between responsiveness and loyalty, was not supported ($\beta = 0.096$, $t = 0.752$, $p = 0.452$). Conversely, reliability (H3c) had a significant positive effect on customer loyalty ($\beta = 0.507$, $t = 2.812$, $p = 0.005$), further solidifying the role of service reliability in fostering loyalty.

Regarding the mediation analysis, none of the mediating effects of customer satisfaction between the service quality dimensions and customer loyalty were supported. Specifically, the mediating roles of customer satisfaction for tangibility (H4a: $\beta = 0.005$, $t = 0.209$, $p = 0.835$), responsiveness (H4b: $\beta = 0.029$, $t = 0.436$, $p = 0.663$), and reliability (H4c: $\beta = 0.040$, $t = 0.459$, $p = 0.647$) were all insignificant. The R^2 value of 0.763 suggests that the combined effect of these variables explains a large portion of the variance in customer loyalty, despite the lack of mediation effects.

The findings reveal that not all aspects of service quality have a significant influence on customer satisfaction. Specifically, while responsiveness and reliability positively affect customer satisfaction, tangibility does not. This suggests that customers value the responsiveness and reliability of services more than the physical aspects of service delivery. These results align with prior studies, which highlighted the importance of service quality in driving customer satisfaction (Ashiq & Hussain, 2024; Septianna et al., 2022; Djunaid, 2023). This is relevant since the improved service quality will contribute to strengthening customer satisfaction (Scherrer et al., 2023). Hence, indeed, service quality shows the ability to meet customer expectations effectively (Ramya et al., 2019).

Additionally, this study found no significant effect of customer satisfaction on customer loyalty, which contrasts with the findings of Ashiq & Hussain (2024), who identified a positive link between the two variables. This study also did not support the finding provided by Mahmood et al. (2018), who highlighted satisfaction as a crucial predictor of customer loyalty. This finding is also contrary to Phi and Huong (2023), who demonstrate that heightened customer satisfaction will directly contribute to improving customer loyalty. It suggests that in certain contexts, satisfaction alone may not be sufficient to foster customer loyalty, pointing to the need for further investigation into other potential influencing factors.

Moreover, the study highlights that responsiveness does not significantly impact customer loyalty, while both tangibility and reliability do. This finding supports the notion that the physical and reliable aspects of service play a crucial role in retaining customers. However, these findings contradict Mahmood et al. (2018), who argued that all components of service quality contribute to loyalty. Such inconsistencies could again be linked to contextual differences, including the type of services offered or regional customer expectations. Nevertheless, the overall findings still substantially suggest that service quality plays a pivotal role in shaping customer loyalty, as revealed by prior studies (Ashiq and Hussain, 2024; Kuswibowo and Tyasti, 2023; Safi & Alagha, 2020; Moreira et al., 2017; Makanyeza and Chikazhe, 2017; Srivastava and Rai, 2014).

Lastly, this study also indicates that customer satisfaction does not mediate the relationship between any of the service quality dimensions and customer loyalty. This finding aligns with the research of Ashiq & Hussain (2024), which similarly reported no significant mediating effect. However, the finding of this study is contrary to prior studies that found that customer satisfaction acts as a mediator between service quality and loyalty (Titan & Suasana, 2023; Mahmood et al., 2018; Wantara, 2015). The divergence in these findings may be explained by sample characteristics and contexts. Hence, these findings suggest that the role of customer satisfaction in mediating the effect of service quality on customer loyalty is contextual, as indicated by Ashiq & Hussain (2024).

4. CONCLUSION

This study aimed to evaluate the influence of service quality components on customer satisfaction and customer loyalty at Telkom Ternate. The findings reveal that reliability and responsiveness significantly enhance customer satisfaction, while tangibility and reliability are key drivers of customer loyalty. Interestingly, the anticipated mediating role of customer satisfaction between service quality and customer loyalty was not supported. These insights contribute to the existing body of knowledge, particularly regarding the critical role of service quality in strengthening customer loyalty within the internet provider sector. Given these findings, Telkom Ternate should focus on improving service quality, especially in the areas of tangibility and reliability, as these factors directly impact customer loyalty. Enhancing physical office infrastructure and service facilities can improve the overall customer experience, making it easier for customers to access Telkom's products and services. Additionally, ensuring that services remain reliable will enable the company to promptly address customer issues, leading to stronger customer relationships and loyalty. While this study highlights the significance of responsiveness and reliability for customer satisfaction and underscores the importance of tangibility and reliability for customer loyalty, its findings are limited to Telkom Ternate, restricting generalizability. Future research should explore these relationships across different regions and sectors to provide a broader understanding. Moreover, the inconclusive role of customer satisfaction as a mediator suggests the need for further investigation into its potential impact in varying contexts.

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