Proceedings Series on Proceedings of Multidisciplinary Sciences, Volume 2, No. 1
International Conference of Business, Education, Health, and Scien-Tech (ICBENS)
ISSN: -

Service Quality, Price, Promotion, And Market Image To Loyalty Through Telkomsel Customer Satisfaction As An Intervening Variable

Fikri Nurul Magfirah[1*], Suhardi M. Anwar[2], Hadi Pajrianto[3]
[123]Postgraduate Program, Universitas Muhammadiyah Palopo, 91911, Indonesia

Corresponding Author Email: Fikrimagfirah27@gmail.com

Abstract

This study aims to analyze the influence of service quality, price, promotion, and market image on Telkomsel customer loyalty with customer satisfaction as an intervening variable. A quantitative approach was used by a survey method of 110 active Telkomsel customers in Palopo City. Data analysis was carried out using Structural Equation Modeling–Partial Least Squares (SEM–PLS). The results of the study show that customer satisfaction has a positive and significant influence on loyalty. The variables of service quality, price, and promotion also have a significant effect on customer satisfaction, while market image has no significant effect on satisfaction or loyalty. These findings prove that customer satisfaction mediates the influence of service quality, price, and promotions on customer loyalty. Thus, improving service quality, competitive pricing policies, and attractive promotions are key factors in building Telkomsel customer loyalty, while market image plays an indirect role through real customer experience.

Keywords: customer_satisfaction; market_image; price; promotion; service_quality.

1. Introduction

In recent years, the global telecommunications industry has become the backbone of digital transformation, with the growth of smartphone penetration and the demand for data connectivity soaring. By the end of 2023, the number of global mobile connections is expected to exceed 8.8 billion, with data services revenue being a major contributor for operators worldwide . Increasingly fierce competition among telecom operators has shifted the focus from simply acquiring new customers to retaining existing customers and building long-term loyalty. In this saturated landscape, customer loyalty emerges as a strategic asset that determines a company's sustainability and [1].

Globally, the main challenge faced by telecommunication operators is the high customer churn rate. Recent studies show that the telecommunications industry consistently records one of the highest churn rates compared to other service sectors, with a global average of 15-20% per year [2]. This phenomenon has a significant economic impact, where the cost of acquiring new customers can be five to seven times more expensive than retaining existing customers. Therefore, understanding the mechanisms that drive loyalty is no longer just an academic goal, but a business imperative to ensure survival in a dynamic and competitive market.

Theoretically, research on customer loyalty is often rooted in Grand Theories such as Expectation-Confirmation Theory (ECT) and Theory of Planned Behavior (TPB). ECT, popularized by Oliver (1980), explains that customer satisfaction arises when the performance of a service meets or exceeds expectations, which ultimately becomes a driver of loyalty. Further developments in thinking introduced the Customer Loyalty Matrix which distinguishes

between behavioral and attitudinal loyalty, emphasizing that satisfaction does not always directly translate into loyalty [3] The evolution of this theory led to the recognition of the importance of intervening variables, such as satisfaction, that mediate the relationship between the perception of service quality and loyalty.

However, the direct relationship between marketing variables such as service quality, price, promotion, and brand image with loyalty often results in inconsistent findings. Some studies, such as those conducted by [4] have found that the quality of service has a direct and strong influence on loyalty. On the other hand, a study from [5] shows that in a competitive market, the direct influence of prices and promotions on loyalty is weakened, and the effect is more mediated entirely by customer satisfaction. These inconsistencies point to the existence of specific contexts and mediating factors that need to be investigated more deeply, signaling an unresolved academic debate [6], [7].

Methodologically, research in this area largely dominates quantitative approaches by using Structural Equation Modeling (SEM) to test complex relationship models. The survey method with questionnaires as the main instrument is the most commonly applied pattern [8]. However, there are gaps in the application of this method to capture the dynamics of customer behavior longitudinally. Most studies are cross-sectional, so the ability to infer long-term causal relationships is still limited.

The specific problems faced by PT Telkomsel in Indonesia reflect these global dynamics. As the largest telecommunications operator in Indonesia with a significant market share, Telkomsel faces intense competition pressure from other operators such as Indosat Ooredoo Hutchison and XL Axiata. Telkomsel's annual report (2023) reveals that despite having a large customer base, the company continues to struggle to reduce churn rates, especially in the prepaid segment. The specific characteristics of the Indonesian market, such as high price sensitivity, geographical heterogeneity, and fragile loyalty, make customer retention strategies extremely challenging and complex.

Based on an in-depth literature review, significant research gaps were identified. First, there is still little research that simultaneously integrates the four independent variables (service quality, price, promotion, brand image) with satisfaction as an intervening variable in the context of Indonesian telecommunications [3]. Second, most previous studies have focused on direct relationships, so the role of customer satisfaction mediation in explaining the mechanism of loyalty formation in Telkomsel has not been comprehensively explored [9]. This gap shows the novelty of this study.

The urgency of this research lies in Telkomsel's need to formulate a more effective and efficient marketing strategy based on empirical evidence. By understanding which pathways are most influential in building loyalty whether directly through brand image or indirectly through satisfaction management can allocate resources more optimally. Ultimately, the findings of this study are expected to be a strategic solution to reduce churn rates and increase company profitability in the long term [10].

Therefore, this study aims to test the influence of service quality, price, promotion, and brand image on Telkomsel customer loyalty with customer satisfaction as an intervening variable. Specifically, this study will map whether customer satisfaction plays a role as full or

partial mediation in these relationships, so as to provide a clearer explanation of the psychological mechanisms of customers.

The benefits of this research include both theoretical and practical contributions. Theoretically, this research enriches the body of knowledge in the science of service marketing, in particular by confirming or modifying the ECT model in the context of the telecommunications industry in developing countries. Practically, the results of the research will provide actionable strategic recommendations for Telkomsel management in designing service programs, pricing, promotional campaigns, and integrated brand image management to maximize customer loyalty.

2. Methodology

Research Methods

This study uses a quantitative approach with the type of explanatory research, which aims to explain the causal relationship between independent variables (service quality, price, promotion, market image) and bound variables (customer loyalty) and customer satisfaction as an intervening variable. This approach was chosen because it is able to provide an empirical explanation through testing hypotheses that are statistically measurable.

Population and Sample

The population in this study is all active Telkomsel customers in Palopo City. The sampling technique uses purposive sampling with the criteria of respondents who have used Telkomsel's services for at least the last six months. The number of samples used was 110 respondents, in accordance with the provisions of [8] that the sample size is at least five to ten times the number of indicators in the SEM–PLS model.

Data Collection Techniques

Data was collected through survey-based questionnaires that were shared in person and online. Each indicator is measured using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). The research instruments include indicators for the following variables:

1. Quality of Service (X1): reliability, responsiveness, assurance, empathy, and physical evidence.
2. Price (X2): affordability, compatibility with benefits, price fairness, and rate transparency.
3. Promotion (X3): frequency, appeal, relevance, and ease of access to information.
4. Market Image (X4): perception of reputation, brand excellence, and public trust.
5. Customer Satisfaction (Z): the fulfillment of expectations, comfort, and a positive experience.
6. Customer Loyalty (Y): repurchase intent, recommendations, and ongoing commitment.

Validity and Reliability Tests

Before widespread dissemination, the questionnaire was tested through expert judgment by two academics and one telecommunications industry practitioner to ensure the validity of the content. Furthermore, convergent and discriminant validity tests were carried out using outer loading values (> 0.70), AVE (> 0.50), and reliability through Cronbach's Alpha and Composite Reliability (> 0.70).

Data Analysis Techniques

The data was analyzed using Structural Equation Modeling–Partial Least Squares (SEM–PLS) with the help of SmartPLS software. The analysis is carried out through two stages:

1. Measurement model (outer model) to test the validity and reliability of constructs.
2. Structural models (inner models) to test the relationship between variables and the mediating effect of customer satisfaction. Significance was tested using bootstrapping with a T-statistic value of > 1.96 and a p-value of < 0.05 as criteria for hypothesis acceptance.

Research Location and Time

The research was carried out in Palopo City, South Sulawesi, because this area represents Telkomsel's active customer market in the regional area. The research implementation period lasts between March and June 2025, including the stage of instrument preparation, data collection, analysis, and preparation of research results reports.

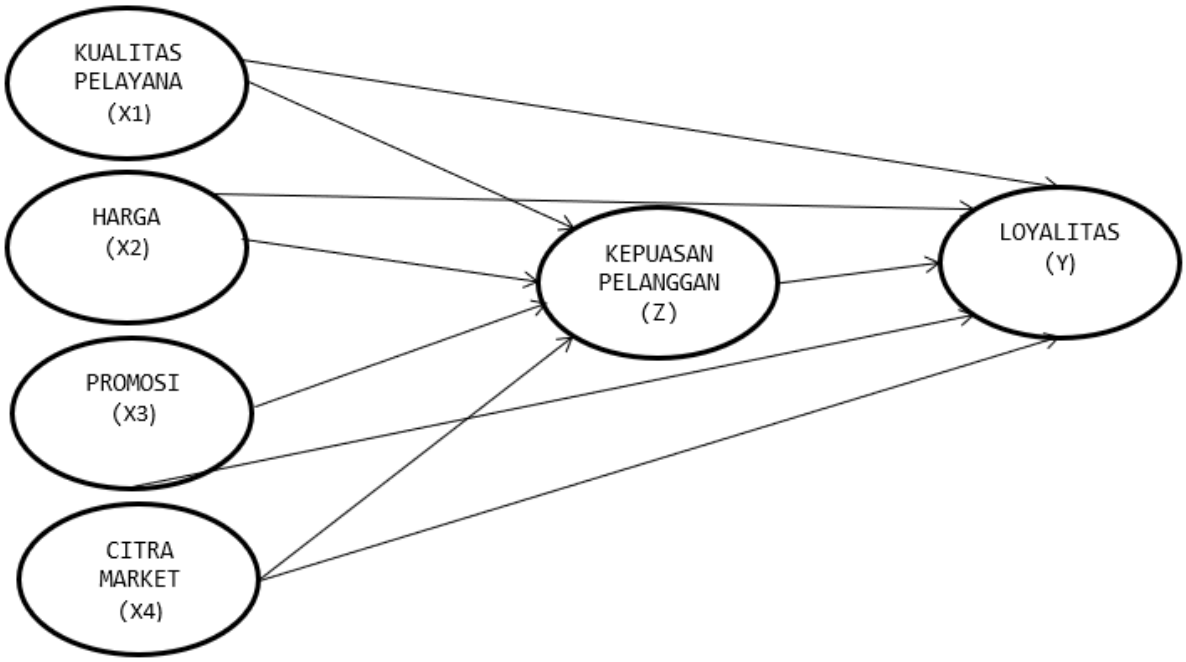

Figure 1. Research Framework

3. Result and Discussion

3.1. Result

Respondent Overview

This study involved 110 respondents who are active Telkomsel customers in Palopo City. Respondents were selected using the purposive sampling technique with the criteria of having used Telkomsel's products or services for at least the last six months. The goal is to obtain a representative picture of customer perception of service quality, price, promotion, market image, customer satisfaction, and loyalty.

Table 1. Respondent Characteristics

No	Characteristics	Category	Frequency (n)	Percentage (%)
1	**Gender**	Man	58	52,7
		Woman	52	47,3
2	**Age (Years)**	< 20	18	16,4
		21–30	53	48,2
		31–40	26	23,6
		> 40	13	11,8
3	**Work**	Student/Student	44	40,0
		Private Employees	33	30,0
		Self employed	22	20,0
		Other	11	10,0
4	**Long Term Use of Telkomsel**	< 1 year	12	10,9
		1–3 year	26	23,6
		> 3 year	72	65,5
Total		**110**	**100**	

Uji Measurement Model (Outer Model)

The test results using the SmartPLS application showed that all indicators in the variables Quality *of Service (X1), Price (X2), Promotion (X3), Market Image (X4), Customer Satisfaction (Z), and Loyalty (Y)* had an outer loading value above 0.70, which ranged from 0.722 to 0.901, so that all indicators were declared valid.

Furthermore, the model is declared reliable because Cronbach's Alpha value for each construct is in the range of 0.804 to 0.907, greater than the minimum limit of 0.60. The Composite Reliability (CR) value is also very good, which is between 0.871 and 0.935, which shows that the internal consistency of the research instrument is relatively high.

In addition, the Average Variance Extracted (AVE) value for each variable is in the range of 0.629 to 0.781, greater than the minimum limit of 0.50. This indicates that each construct has adequate convergent validity.

Thus, it can be concluded that all constructs in this research model both independent, intervening, and dependent variables meet the criteria of validity and reliability to proceed to the testing stage of the structural model (inner model).

Table 2. Measurement Model / Outer Model Test

Variabel	Item	λ (Outer Loading)	Cronbach's α	CR	AVE
Quality of Service (X1)	QS1	0.893	0.907	0.935	0.781
	QS2	0.901			
	QS3	0.884			
	QS4	0.857			
Price (X2)	PR1	0.838	0.869	0.910	0.718
	PR2	0.835			
	PR3	0.865			
	PR4	0.850			
Promotion (X3)	PM1	0.836	0.853	0.901	0.695
	PM2	0.859			
	PM3	0.894			
	PM4	0.737			
Market Citra (X4)	MC1	0.722	0.867	0.904	0.702
	MC2	0.839			
	MC3	0.899			
	MC4	0.880			
Customer Satisfaction (Z)	CS1	0.815	0.804	0.871	0.629
	CS2	0.838			
	CS3	0.761			
	CS4	0.755			
Loyalty (Y)	LL1	0.836	0.875	0.914	0.727
	LL2	0.889			
	LL3	0.857			
	LL4	0.828			

Note: X1 = Quality of Service (QS), X2 = Price (PR), X3 = Promotion (PS), X4 = Market Citra (MC), Z = Customer Satisfaction (CS), Y = Loyalty (LL)
Author Source 2025

Then the discriminant validity test is carried out to ensure that each construct in the research model has a clear difference from each other. This test uses the Fornell-Larcker criterion, which is to compare the square root of AVE (diagonal value) against the correlation between constructs (off-diagonal value). A construct is declared to meet discriminant validity if the square root value of AVE is greater than the correlation between other constructs.

Based on the results of the analysis in Table 3, it can be seen that all constructs in this research model meet the Fornell-Larcker criteria. For example, the Quality of Service (X1) construct has an AVE root value of 0.884, which is larger than its correlation with other constructs such as *Price (0.917*), *Promotion (-0.128*), and *Customer Satisfaction (0.107).* Likewise, the Price construct (X2) has a diagonal value of 0.847, higher than its correlation with *Promotion (0.856*), *Loyalty (0.845),* and *Market Citra (-0.116).*

Furthermore, the Promotion construct (X3) shows a diagonal value of 0.834, higher than its correlation with other constructs (e.g. *Customer Satisfaction = 0.694* and *Loyalty = 0.842*). The Market Citra construct (X4) also meets the criteria with a diagonal value of 0.838, which is greater than its correlation with other constructs (e.g. *Customer Satisfaction = 0.082* and *Loyalty = -0.118*).

In addition, the Customer Satisfaction (Z) construct has an AVE root value of 0.793, which is greater than the correlation with other constructs such as *Price (0.729)* and *Promotion (0.694).* Finally, the Loyalty (Y) construct with a diagonal value of 0.853 is also higher than its correlation with other constructs such as *Promotion (0.842)* and *Price (0.845).*

Thus, it can be concluded that all constructs in this study have a better ability to explain their respective indicators compared to other constructs. Therefore, this research model has met the discriminatory validity.

Table 3. Discriminant Validity (Fornell–Larcker Criterion)

Construct	CS	LL	MC	PR	PM	QS
CustomerSatisfaction (Z)	0.793					
Loyalty (Y)	0.805	0.853				
Market Citra (X4)	0.082	-0.118	0.838			
Price (X2)	0.729	0.845	-0.116	0.847		
Promotion (X3)	0.694	0.842	-0.065	0.856	0.834	
Quality of Service (X1)	0.107	-0.121	0.917	-0.183	-0.128	0.884

Note: X1 = Quality of Service (QS), X2 = Price (PR), X3 = Promotion (PS),
X4 = Market Citra (MC), Z = Customer Satisfaction (CS), Y = Loyalty (LL)

Uji Hypothesis

The results of the SEM-PLS analysis showed that Customer Satisfaction (Z) had a positive and significant effect on Loyalty (Y) ($\beta = 0.357$; $T = 5.325$; $P = 0.000$). Quality of Service (X1), Price (X2), and Promotion (X3) had a significant effect on Customer Satisfaction (Z) with a coefficient of 0.588 each; 0,583; and 0.246 ($P < 0.05$). In addition, Price (X2) and Promotion (X3) also have a direct effect on Loyalty (Y) ($\beta = 0.271$ and 0.366; $P < 0.05$). However, Quality of Service (X1) and Market Citra (X4) had no significant effect on Loyalty

(Y), and Market Citra (X4) also had no effect on Customer Satisfaction (Z). Thus, Telkomsel's customer loyalty is more influenced by satisfaction, price, and promotion, not market image.

The results of the mediation test showed that Customer Satisfaction (Z) significantly mediated the effect of Quality of Service (X1), Price (X2), and Promotion (X3) on Loyalty (Y), each with a P value of < 0.05. This means that improving service quality, appropriate prices, and attractive promotions will increase customer satisfaction, ultimately strengthening loyalty. On the other hand, the mediation pathway of Market Image (X4) → Customer Satisfaction (Z) → Loyalty (Y) was insignificant (P = 0.075), so market image did not play a role in shaping loyalty through customer satisfaction.

Table 4. Hypotesis Test (Path Coefficient)

Hypotesis	Correlation	β	T-Statistic	P-Value	Information
H1	QS → LL	0.136	1.153	0.249	Rejected
H2	PR → LL	0.271	3.270	0.001	Accepted
H3	PM → LL	0.366	5.626	0.000	Accepted
H4	MC → LL	-0.217	1.748	0.081	Rejected
H5	QS → CS	0.588	3.035	0.003	Accepted
H6	PR → CS	0.583	6.305	0.000	Accepted
H7	PR → CS	0.246	2.587	0.010	Accepted
H8	MC → CS	-0.374	1.778	0.076	Rejected
H9	CS → LL	0.357	5.325	0.000	Accepted
H10	QS → CS → LL	0.210	2.682	0.008	Accepted
H11	PR → CS → LL	0.208	4.054	0.000	Accepted
H12	PM → CS → LL	0.088	2.387	0.017	Accepted
H13	MC → CS → LL	-0.133	1.786	0.075	Rejected

Information: X1 = Quality of Service (QS), X2 = Price (PR), X3 = Promotion (PS), X4 = Market Citra (MC), Z = Customer Satisfaction (CS), Y = Loyalty (LL)

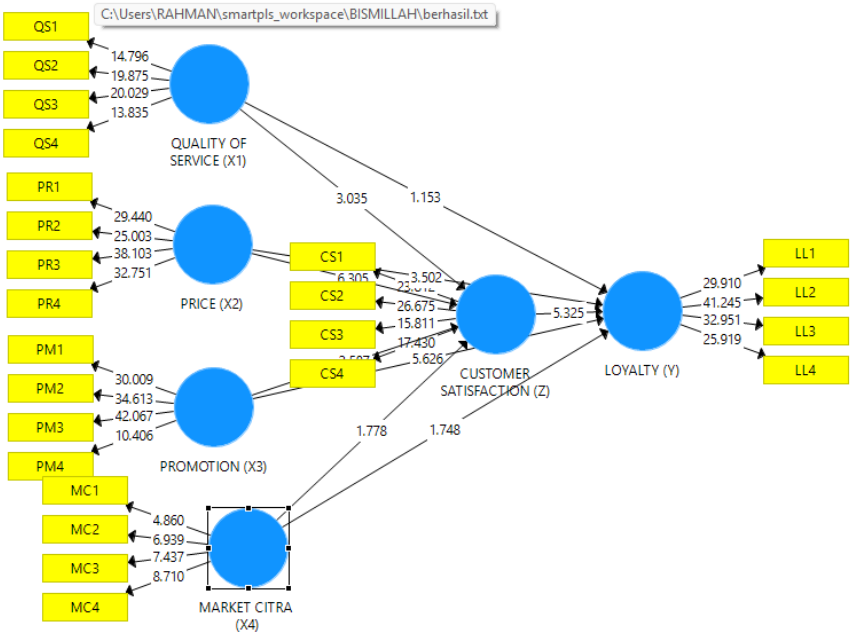

Figure 2. SEM Analysis

3.2. Discussion

The results of the study show that customer *satisfaction* plays an important role in shaping Telkomsel customer loyalty. The direct influence between satisfaction and loyalty has proven to be significant, confirming that the higher the satisfaction with services, prices, and promotions, the stronger the tendency of customers to remain loyal to Telkomsel. This is in line with the *theory of Customer Satisfaction Loyalty Relationship* put forward by Oliver (1999), that satisfaction is the main determinant of long-term loyalty.

The variables of Quality of Service, Price, and Promotion have been proven to have a positive influence on customer satisfaction, which means good service quality, prices that are commensurate with benefits, and attractive promotions can increase customers' positive perception of Telkomsel. These findings are in line with the research of [11] which stated that the dimension of service and competitive prices are the main factors in building consumer satisfaction.

Meanwhile, the Market Citra variable did not show a significant influence on satisfaction or loyalty. This condition indicates that Telkomsel's brand image in the market is not strong enough to directly affect customer attitudes, possibly because customers are more oriented towards the experience of using the service rather than the perception of the brand.

On the indirect path, results show that customer satisfaction mediates the relationship between service quality, price, and promotion to loyalty. This means satisfaction becomes the primary mechanism that connects service and marketing strategies with customer loyalty. These findings support the concept of *the Service Quality Model* (SERVQUAL) and *the Expectancy–Disconfirmation* theory [12], which explains that satisfaction is formed when service performance meets or exceeds customer expectations, thereby driving higher loyalty.

Overall, this study emphasizes that efforts to increase Telkomsel customer loyalty should be focused on improving service quality, fair price adjustments, and relevant and sustainable

promotions. Market image remains important, but its influence is indirect through real customer experiences.

4. Conclusion

Based on the results of data analysis using SEM-PLS on 110 Telkomsel customer respondents in Palopo City, several main conclusions were obtained. First, the Customer Satisfaction (Z) variable has a positive and significant effect on Loyalty (Y), which means that the higher the customer satisfaction level, the stronger the loyalty to Telkomsel. Second, the variables Quality of Service (X1), Price (X2), and Promotion (X3) have a significant effect on customer satisfaction, while Market Citra (X4) has no significant effect on satisfaction or loyalty. Third, customer satisfaction has been shown to significantly mediate the influence of service quality, price, and promotion on customer loyalty. Thus, customer satisfaction is a key factor in strengthening the relationship between Telkomsel's marketing strategy and customer loyalty.

5. Acknowledgement

The author expresses gratitude to God Almighty for the health, strength, and opportunities given so that this research can be completed. The author expresses his deep gratitude to both parents for their endless prayers, support, and sacrifices. The author also thanked himself for his efforts, patience, and perseverance in going through every research process until the final stage of writing this work.

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