



Investigating Brand Awareness, Brand Image, and Perceived Quality on Customer Loyalty

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Abstract

This study investigates the impact of brand awareness, brand image, and perceived quality on customer loyalty, with a focus on Telkomsel users within the Creative Business program at Universitas Indonesia. Employing a quantitative research methodology, data were collected from 50 respondents using a structured questionnaire and analyzed using SPSS 26. The findings reveal that all three factors—brand awareness, brand image, and perceived quality—positively influence customer satisfaction, which in turn significantly enhances customer loyalty. Specifically, perceived quality emerged as the most influential factor driving customer satisfaction, followed by brand image and brand awareness. The study underscores the critical role of perceived quality in fostering customer loyalty, suggesting that Telkomsel's success in retaining customers is largely attributed to its high service standards. This research contributes to the literature on brand management in the telecommunications sector and offers practical insights for enhancing customer loyalty through strategic improvements in brand perception and service quality.

Keywords: Brand Awareness, Brand Image, Customer Loyalty, Customer Satisfaction, Perceived Quality

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INTRODUCTION

The development of Information and Communication Technology in Indonesia has been rapid and undeniable (Laely, 2016). Currently, internet usage in Indonesia is also increasing significantly. Indonesia ranks fourth among the countries with the highest number of internet users worldwide, with a user base of 212.9 million (Statista.com). According to the Central Bureau of Statistics (BPS), the population of Indonesia in 2022 was 275 million, which indicates that 77% of the Indonesian population is now using the internet (Data.goodstats.id).

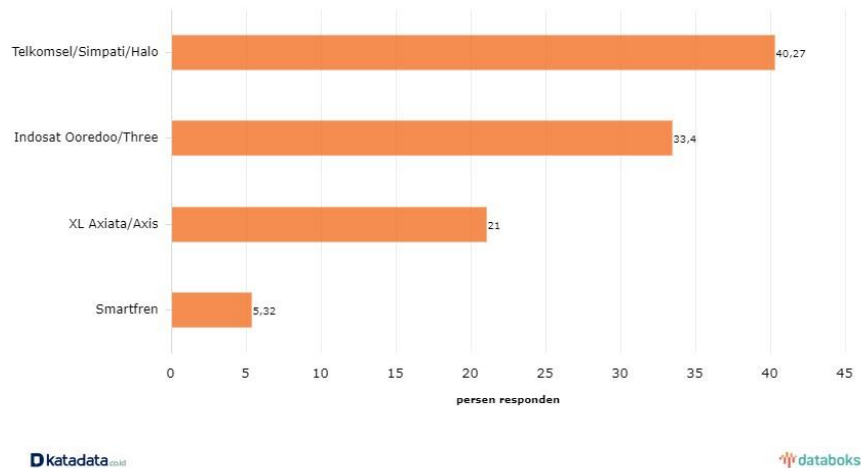


Figure 1. Most used service providers in Indonesia (January 2023).

Source: <https://databoks.katadata.co.id/>

According to CNBC Indonesia in 2022, there are currently four major providers offering cellular operator services in Indonesia: Telkom Indonesia (TLKM) with Telkomsel, XL Axiata (EXCL), Indosat (ISAT), and Smartfren (FREN). A survey conducted by the Indonesian Internet Service Providers Association (APJII) in early 2023 found that Telkomsel is the most widely used mobile operator in the country. Out of 8,510 respondents, 40.27% reported using Telkomsel (databoks.katadata.co.id). Telkomsel's position as the most widely used provider in Indonesia can be attributed to its extensive coverage, stable network quality, and continuous innovation in products and services (Indotel.co.id). Telkomsel has provided telecommunications access in 24,056 villages and has installed 27,800 telecommunications infrastructures (Indotel.co.id). It can be concluded that Telkomsel's dominance in the market is due to its effective marketing strategies aimed at acquiring and retaining customers.

According to Chandra and Gregorius (2012), the marketing concept emphasizes the critical importance of customer satisfaction for the success of an organization and the achievement of company objectives. Kotler and Armstrong (2008) state that consumer satisfaction is a measure of how well a product's performance aligns with consumer expectations. Consumers form expectations about value and satisfaction when choosing a product to purchase and base their decisions on these expectations. Additionally, consumer satisfaction is the feeling derived from evaluating their experiences with the purchase and use of a product (Wijayanti, 2014). Marketing activities are expected to create brand image, brand awareness, perceived quality, and brand loyalty (Dhamayanty, et al., 2022). A brand with a strong reputation in the community will likely secure a good market position, gain a competitive advantage, and increase market share (Dhamayanty, et al., 2022). Brand image is crucial for consumer loyalty, as it enhances consumer trust in a brand (Ismani, 2008). According to Langner in 2006 (as cited in Firmansyah, 2019, p. 105), future product usage and purchasing decisions are influenced by brand image and brand awareness, both directly and indirectly. Based on the background of this research, the objective of this study is to examine the impact of brand

awareness, brand image, and perceived quality on the loyalty of Telkomsel users within the Creative Business environment at Universitas Indonesia.

LITERATURE REVIEW

Customer Satisfaction and Customer Loyalty

From a cognitive psychology perspective, customer satisfaction arises from consumers' subjective perceptions of their experience compared to their prior expectations (Kim, Jeong, & Hwang, 2015; Smith, 2020). The expectation disconfirmation theory suggests that customer satisfaction occurs when expectations are either met or exceeded (Qian, Ye, Bai, & Wang, 2015). Since expectations vary among consumers, customer satisfaction is a highly subjective concept that results from overall assessments of service (Kaura, Prasad, & Sharma, 2015). As a core marketing concept, customer satisfaction is widely regarded as a crucial intangible asset and a strong predictor of a firm's future profits due to its positive correlation with customer loyalty (Luo, Homburg, & Wieseke, 2010). Customer loyalty, a key marketing topic studied for over a century, is defined as the strength of a customer's attachment to a brand and their intent to consistently repurchase or repatronize (Pan, Sheng, & Xie, 2012; Zhu, Zhi, Wu, & Tian, 2024). In mobile services, research indicates that customer satisfaction results in positive post-purchase behaviors, such as higher loyalty, fewer complaints, and reduced switching intentions (Calvo-Porrà & Lévy-Mangin, 2015; Morgeson, Sharma, & Hult, 2015).

Customer loyalty, extensively covered in marketing literature, is assessed using various methods, with some researchers concentrating on behavioral factors and others highlighting attitudinal as well as behavioral perspective (Quach, Thaichon, & Jebarajakirthy, 2016; Ren, Chen, & Yang, 2024). In this context, customer loyalty is understood as a multifaceted concept, encompassing repurchase intentions, preferences, and attitudes toward the brand (Bourdeau, Cronin, & Voorhes, 2024; Chen, Guo, Xiong, & Ye, 2023). While behavioral loyalty is characterized by repeat purchases, this study defines attitudinal loyalty in terms of customers' internal feelings of attachment, word-of-mouth, and recommendations (Dick & Basu, 1994). Kandampully and Suhartanto (2000) indicated that there is a positive relationship between customer satisfaction and customer loyalty (Kandampully & Suhartanto, 2000). Al-Deewari et al. (2017) noted that the connection between customer satisfaction and customer loyalty is quite evident (Al-deewari, Obeidat, Al-dwiry, Alshurideh, & Alhorani, 2017). Customer satisfaction influences customer behavior, which subsequently affects customer loyalty (Agarwal & Dhingra, 2023). Kassim and Abdullah (2010) and Liat et al. (2014) demonstrated a strong connection between customer satisfaction and loyalty (Kassim & Abdullah, 2010; Liat, Manosri, & Huei, *Journal of Hospitality Marketing & Management*). Therefore, the first hypothesis in this research is proposed below.

H1: Customer satisfaction positively influences customer loyalty

Brand Awareness, Brand Image, and Perceived Quality in Customer Satisfaction

Brand awareness refers to the extent to which a brand is recognized and remembered by consumers. It reflects how prominent a brand is in people's minds and their ability to identify or recall the brand name (Romaniuk, Wight, & Faulkner, 2017; Liebers, Breves, Schallhorn, & Schramm, 2019; Kim, Choe, & Petrick, 2018). It can also be explained as the extent to which consumers associate a brand with a specific product they plan to purchase, and a crucial factor influencing customers' buying decisions (Sasmita & Suki, 2015; Ansary & Hashim, 2018). Additionally, brand awareness is crucial in making sure that customers consider a particular brand when they think of a specific product (Ansary & Hashim, 2018). According to Jalilvand et al. (2017), high brand awareness may indicate that the brand is widely recognized, respected, and commonly known (Jalilvand, Salimipour, Elyasi, & Mohammadi, 2017). Brand awareness is linked to consumer brand value, and consumer-based brand value is partly assessed by the level of

awareness it generates (Esch, Tobias, Bernd, & Patrick, 2006; Kim, Choe, & Petrick, 2018). As a result, brands with high awareness are often valued more by customers (Matikiti-Manyevere, Roberts-Lombard, & Mpinganjira, 2021). The brand name is the most important element of brand awareness, which demonstrates a positive relationship between brand awareness and brand equity (Lee & Back, 2010; Bihamta, Jayashree, Rezaei, Okumus, & Rahimi, 2017). Therefore, the second hypothesis proposed in this study is as follows.

H2: Brand awareness positively influences customer satisfaction.

Brand image is crucial for customer satisfaction, as a favorable brand image can enhance satisfaction through the perceived quality and value it provides (Andreani, Taniaji, & Puspitasari, 2012). A widely recognized and accepted brand image leads to customer satisfaction (Hamid, Ibrahim, Seesy, & Hasaballah, 2015; Tu & Chang, 2012; Karim & Rabiul, 2024). Consumer satisfaction enables businesses to understand, pinpoint, and predict brand products, thereby supporting the reinforcement and growth of the brand image (Chien-Hsiung, 2011). Given the close relationship between brand image and customer satisfaction, marketing managers must understand the importance of developing a strong brand identity to enhance consumer satisfaction and foster customer loyalty (Upamannyu & Sankpal, 2014). Brands should tailor their products to meet customer demands, as fulfilling customer expectations leads to satisfaction (Purohit, 2017). The alignment between expectations and experience affects consumer satisfaction with the product or service, the performance of the product or service, and the quality of the service provider's offerings (Jasin, Firmansyah, Anisah, Junaedi, & Haris, 2023). A trustworthy and established brand image gives customers the confidence to engage with the brand's offerings. (Tahir, Adnan, & Saeed, 2024; Guenther & Guenther, 2021). Therefore, the following is the third proposed hypothesis proposed in this study.

H3: Brand image positively influences customer satisfaction.

In services marketing research, it is generally believed that the customer can assess the service performance and then compare the outcome with their pre-purchase or pre-consumption expectations (Naz, Asrar-ul-Haq, Iqbal, & Ahmed, 2023). This study employs the concept of customer-perceived service quality to denote the quality of service that a customer encounters and experiences throughout the purchase process. Perceived quality and customer satisfaction are crucial factors that are strongly interconnected (Olsen, 2002), whereas perceived quality acts as a key factor that significantly influences the level of customer satisfaction (Suchanek, Richter, & Kralova, 2015). The research conducted by Chakraborty and Sengupta (2014) in the context of mobile networks elucidates that the quality of services is a pivotal factor in amplifying the degree of customer satisfaction (Chakraborty & Sengupta, 2014). Nezhad and Akbari (2017) articulate that satisfaction functions as an intermediary variable, effectively bridging the relationship between perceived quality and customer loyalty (Nezhad & Akbari, 2017). Samudro et al. (2020) have further substantiated those perceptions of product quality function as an essential instrument for assessing and measuring customer satisfaction (Samudro, Sumarwan, Simanjuntak, & Yusuf, 2020). Ajami et al. (2018) affirmed that perceived quality, together with customer expectations, represents the most critical determinants in securing and ensuring overall satisfaction (Ajami, Elola, & Pastor, 2018). Therefore, the fourth hypothesis proposed to be examined is set forth:

H4: Perceived quality positively influences customer satisfaction.

Analytical Framework



Figure 2. Analytical Framework

- H1: Customer satisfaction positively influences customer loyalty.
- H2: Brand awareness positively influences customer satisfaction.
- H3: Brand image positively influences customer satisfaction.
- H4: Perceived quality positively influences customer satisfaction.

Measurement Items

The indicators used in this research consist of both closed-ended and open-ended questions. Table 1 presents the measurement items of this study that the authors have formulated into questions.

Table 1. Measurement Items

Variables	Dimensions	Indicators	References
Brand Awareness (BA)	Brand Recall	BNA 1. Understanding the benefits of having a high level of brand awareness for a company or brand.	Duriyanto, et al. (2001)
		BNA 2. Identifying real-life examples of Telkomsel's strategies that successfully increased respondents' Brand Awareness.	
		BNA 3. Assessing whether Telkomsel's marketing strategies influence brand awareness.	
	Brand Recognition	BNA 4. Understanding that Telkomsel has specific strategies to maintain brand awareness in the long term.	
Brand Image (BI)	Brand Personality	BNI 1. Customers purchase Telkomsel products because of its attractive name, logo design, and colors.	Rorlen, Ekadjaja, et al. (2023)
		BNI 2. Customers feel that Telkomsel offers a wide range of internet package options.	
		BNI 3. Telkomsel is perceived as a popular provider in the customers' environment.	
		BNI 4. Understanding the perspective of Creative Business students on	

Variables	Dimensions	Indicators	References
		Telkomsel's brand identity.	
		BNI 5. Understanding someone's viewpoint when they hear the brand "Telkomsel."	
Perceived Quality (PQ)	Performance	PCQ 1. Telkomsel provides good signal quality.	Handayai & Purnika (2015)
		PCQ 2. Customers appreciate Telkomsel's marketing strategies.	
	Feature	PCQ 3. MyTelkomsel app enhances customer convenience in transactions.	
		PCQ 4. Identifying the advantages or disadvantages customers experience when using MyTelkomsel app.	
Customer Satisfaction (CS)	Reliability	CTS 1. Understanding how satisfied customers are with Telkomsel's overall services.	Anderson, Fornell, et al. (1994); Cronin & Taylor (1992)
		CTS 2. Assessing customer satisfaction with Telkomsel's signal quality.	
		CTS 3. Determining if customers frequently experience network disruptions with Telkomsel in the past month.	
	Responsiveness	CTS 4. Assessing how responsive Telkomsel's services are to customer issues.	Parasuraman, et al. (1985)
		CTS 5. Understanding customers' opinions on Telkomsel's ability to handle complaints.	Johnston (1995)
Customer Loyalty (CL)	Behavioral	CTL 1. Customers repeatedly purchase Telkomsel products/services.	Dick & Basu (1994)
		CTL 2. Customers voluntarily recommend Telkomsel to friends or family.	
		CTL 3. Customers voluntarily provide positive reviews about Telkomsel.	
	Attitudinal	CTL 4. Understanding customers' emotional attachment to Telkomsel products/services.	
		CTL 5. Understanding the perspectives of customers who have an emotional connection to Telkomsel's products/services.	

RESEARCH METHODOLOGY

Research Designs

This study adopts a quantitative methodology to explore the intricate relationships between brand awareness, brand image, and perceived quality, and their collective impact on the loyalty of Telkomsel users within the Creative Business environment at Universitas Indonesia.

Through this approach, the researcher rigorously tests theoretical constructs by developing precise, well-defined hypotheses and subsequently gathers empirical data to either substantiate or challenge these hypotheses (Creswell, 2018; Bougie & Sekaran, 2019). The primary data for this study are gathered through the distribution of online surveys via Google Forms, targeting individuals who fall within the scope of this aforementioned research subject. The study implements a non-probability purposive sampling technique, meticulously selecting respondents who align with the predefined criteria, ensuring that the sample is precisely tailored to the research objectives (Bougie & Sekaran, 2019). This study involves the comprehensive processing of collected data through a rigorous statistical approach designed to test hypotheses. The questionnaires, which consist of 23 items measured on a 5-point Likert scale, were originally conceived and distributed in Indonesian, and were later meticulously translated into English to facilitate in-depth analysis and discussion within the context of the study.

Statistical Data Analysis

The statistical data analysis was executed using IBM SPSS 26.0, with stringent criteria applied to ensure validity and reliability. Specifically, for an item to be classified as valid, both the KMO MSA score and anti-image matrix scores must surpass a threshold of 0.50. Additionally, each variable is required to achieve a Cronbach's Alpha of at least 0.60 to be deemed reliable and satisfactory (Hair, Black, Babin, & Anderson, *Multivariate Data Analysis*, 2018; Bishara & Hittner, 2012). Following this, the results of normality and linearity tests were instrumental in determining whether Pearson Correlation or Spearman's Rank Test should be applied to assess the coefficient correlation (R value) between each independent and dependent variable. This assessment aims to clarify whether the relationship is positive or negative. In cases where the data fails to conform to a normal distribution, Pearson Correlation is generally considered unsuitable. This is because Pearson Correlation may diminish the absolute magnitude of correlations and potentially lead to underpowered or less accurate statistical assessments (Bishara & Hittner, 2012). In cases where data distribution deviates from normality, it is advisable to apply Spearman's Rank Test as an alternative, particularly using the Rank-Based Inverse Normal Transformation (Hair, Black, Babin, & Anderson, *Multivariate Data Analysis*, 2018). The coefficient correlation value (R value) will be squared to derive the coefficient of determination (R^2), which quantifies the proportion of variance in the dependent variable that is explained by the independent variable (Hair, Black, Babin, & Anderson, *Multivariate Data Analysis*, 2018). Table 2 presents the guidelines for interpreting the R^2 value, which elucidates the strength of the relationships among the variables under examination.

Table 2. Coefficient Correlation Interpretations

Coefficient Interval	Correlation
0.00 – 0.199	Very Weak
0.20 – 0.399	Weak
0.40 – 0.599	Medium
0.60 – 0.799	Strong
0.80 – 1.000	Very Strong

Source: Hair, et al. (2018)

RESULT AND DISCUSSION

In the survey distributed by the researcher via Google Forms within the Creative Business sphere at Universitas Indonesia, 50 respondents using Telkomsel as their provider were obtained, which aligns with the required sample size. This research focuses on the impact of brand awareness, brand image, and perceived quality on customer loyalty to Telkomsel within

the creative business context at Universitas Indonesia. Given the highly competitive telecommunications industry in Indonesia, understanding and enhancing these aspects is crucial for companies like Telkomsel to maintain and expand their customer base. This study aims to examine the telecommunications market and provide new insights into effective marketing and brand management strategies within the context of creative business. Additionally, this study is expected to contribute to academic knowledge and business practices, particularly in enhancing customer loyalty in the telecommunications sector.

Research Implementation

This study applies a series of steps to produce the results. First, questionnaires were distributed to students in the Creative Business program at Universitas Indonesia who use the Telkomsel provider, resulting in the collection of responses from 50 participants, meeting the required sample size. The researcher then compiled, categorized, and reanalyzed the data, comparing it with findings from similar previous studies. Validity and reliability tests were conducted using SPSS 26 software to ensure the accuracy and consistency of the data. Following this, a normality test was performed with SPSS 26 to assess the distribution of the data. Finally, the researcher executed a Spearman correlation test using SPSS 26 to explore the relationships between the variables.

Respondent Characteristics

Table 3. Sample Characteristics

	Gender	Born-year	
Male	16	2003	3
Female	34	2004	41
		2005	6

Source: Processed Data by Researcher (2024)

In this study, the researcher initially gathers a total of 50 respondents, which aligns with the required sample size. The respondents in this study are students of the Creative Business program at Universitas Indonesia who are Telkomsel users. In this section, the researcher collects identity information, including name/initials, generation, gender, and phone number. Table 3 presents this study respondent characteristics. The "Gender" category is divided into two distinct groups: "Male" and "Female." The data analysis reveals a clear gender distribution among the respondents. A significant majority of the respondents are female, accounting for 68% of the total sample, which corresponds to 34 respondents. In contrast, the male respondents comprise 32% of the sample, totaling 16 individuals. This gender distribution suggests a higher participation rate among female students in this particular study.

Furthermore, the study also categorizes respondents based on their generation year, which is divided into three groups: "2003," "2004," and "2005." The analysis of this data provides insights into the academic background of the respondents. The results indicate that the respondents born in 2004 are the most represented among the participants, making up a substantial 82% of the total, which equates to 41 respondents. Respondents born in 2005, on the other hand, account for 12% of the respondents, with 6 individuals falling into this category. Lastly, respondents born in 2003 are the least represented, comprising only 6% of the total sample, which corresponds to 3 respondents.

Measurement Validity and Reliability Analysis Results

Table 4. Validity and Reliability Analysis Results

No	Variable	Indicator	Anti-Image ≥ 0.5	KMO ≥ 0.5	Bartlett's Sig. < 0.05	Cronbach's Alpha > 0.60
1	BA	BRA 3	0.5	0.5	0	0.775
2		BRA 4	0.5			
3	BI	BNI 2	0.507	0.5	0	0.698
4		BNI 3	0.507			
5	PQ	PCQ 1	0.636	0.662	0	0.687
6		PCQ 2	0.679			
7		PCQ 3	0.679			
8	CS	CTS 1	0.654	0.674	0	0.727
9		CTS 2	0.653			
10		CTS 4	0.733			
11	CL	CTL 1	0.744	0.658	0	0.74
12		CTL 2	0.652			
13		CTL 3	0.616			

Source: Processed Data by Researcher using SPSS 26

Table 4 presents the results of the validity and reliability tests conducted using SPSS 26, employing Anti-Image, Kaiser-Meyer-Olkin (KMO), Bartlett's Test of Sphericity, and Cronbach's Alpha for the dimensions or indicators within the variables of Brand Image, Brand Awareness, Perceived Quality, Customer Satisfaction, and Customer Loyalty. The validity test involves measuring the correlation coefficient between the score of a tested indicator and the overall value of the variable (Herlina, 2019:58). To determine whether a questionnaire is valid, the researcher conducted a validity test using the Kaiser-Meyer-Olkin (KMO) method. KMO is a test used to assess the appropriateness or suitability of a factor analysis. If the KMO value is less than 0.5, the factor analysis is deemed unsuitable (Ghozali, 2011). Following this, Bartlett's Test of Sphericity was performed to test the hypothesis that the variables in the population are not correlated. Each variable is perfectly correlated with itself ($r = 1$) but not with other variables ($r = 0$). A significance value ($\text{Sig.} < 0.05$) indicates that the matrix is not an identity matrix and that the variables are related. Additionally, the Anti-Image Matrix was used to assess which variables are suitable for factor analysis by examining whether they have a strong correlation, with values greater than or equal to 0.5 being considered acceptable (Ghozali, 2011: 304). Reliability testing refers to measuring the consistency of results from a questionnaire, where an instrument is considered reliable if it yields consistent data in repeated uses (Sugiyono, 2021). A questionnaire is deemed accurate and reliable if a respondent's answers to statements are consistent or stable over time. In this study, the researcher used Cronbach's Alpha to measure reliability. According to Ghozali (2011), a variable is considered reliable if it produces a Cronbach's Alpha coefficient > 0.60 . A result of $\alpha > 0.60$ indicates reliability or consistency, while a value < 0.60 suggests a lack of reliability or consistency (Hair, et al., 2018).

Based on the calculations from the validity tests shown in Table 4, it is evident that the Anti-Image, KMO, and Bartlett's Test of Sphericity results for the five variables—Brand Image, Brand Awareness, Perceived Quality, Customer Satisfaction, and Customer Loyalty—are valid and suitable for further analysis. This conclusion is supported by the KMO threshold value of 0.5, where factor analysis is deemed valid and appropriate if the value exceeds this threshold. The Brand Image variable received a KMO value of 0.500, Brand Awareness 0.662, Perceived Quality 0.500, Customer Satisfaction 0.674, and Customer Loyalty 0.658. The significance value for

Bartlett's Test of Sphericity (Sig. < 0.05) for each variable was 0.000, well below the 0.05 threshold, indicating that the variables are significantly correlated. The Anti-Image Matrix results show that each indicator meets the minimum requirement, with values above 0.500, indicating that each indicator is valid and suitable for factor analysis and correlation (Hair, et al., 2018).

The measurements of this study have also been proven reliable. This conclusion is based on the Cronbach's Alpha values for each variable and indicator, which all meet the criterion of being above 0.60 (Hair, et al., 2018). The Brand Image variable achieved a Cronbach's Alpha of 0.698, Brand Awareness 0.687, Perceived Quality 0.775, Customer Satisfaction 0.727, and Customer Loyalty 0.740, indicating that each indicator is reliable or consistent. However, in this reliability test, one indicator was removed: "BNI 1. Customers purchase Telkomsel products due to their appealing name, logo design, and color" under the Brand Image variable. This removal was necessary because the Cronbach's Alpha generated from this indicator was 0.414, which did not meet the acceptable criteria, rendering it inadmissible. After removing this indicator, Cronbach's Alpha increased to 0.698. A similar adjustment was made for the indicator "CTS 3. Being aware of disruptions in Telkomsel's network" under the Customer Satisfaction variable. Initially, Cronbach's Alpha was 0.567, but it increased to 0.727 after the indicator was removed.

Normality Testing Analysis

Normality testing is a statistical method used to determine whether a dataset follows a normal distribution (Sartono, 2017). For larger sample sizes (≥ 50), the Kolmogorov-Smirnov test is applied, whereas for smaller sample sizes (< 50), the Shapiro-Wilk test is recommended (Ghasemi & Zahediasl, 2012:486-489). Given that the sample size in this study is 50, the researcher used the Kolmogorov-Smirnov test to evaluate the normality of the data. Table 5 presents the results of the normality test for all indicators across the five variables.

Tabel 5. Kolmogorov-Smirnov Normality Measurement

Variable	Indicator	Sig >0.05
BA	BRA 3	0
	BRA 4	0
BI	BNI 2	0
	BNI 3	0
	PCQ 1	0
PQ	PCQ 2	0
	PCQ 3	0
	CTS 1	0
CS	CTS 2	0
	CTS 4	0
	CTL 1	0
CL	CTL 2	0
	CTL 3	0

Source: Processed Data by Researcher using SPSS 26

The conclusions of the normality test results can be summarized as follows:

- If the significance value is greater than 0.05, the data is considered normally distributed (Hair, et al., 2018).
- If the significance value is less than 0.05, the data is considered not normally distributed (Hair, et al., 2018).

Table 5 shows that all indicators have a significance value of 0.00. Therefore, it can be concluded that the data is not normally distributed.

Correlation Testing Analysis

To determine the relationship between variables, a correlation test is conducted. Since the data is not normally distributed, a non-parametric correlation test is used. According to Sugiyono (2021), if the data is not normal, parametric statistics cannot be used, and non-parametric statistics should be applied instead. One type of non-parametric statistic is Spearman's rank correlation. Spearman's correlation coefficient measures the strength and direction of association between variables that theoretically support such a relationship, and it is statistically quantified through this coefficient (Syamsuar, 2020).

Decision Criteria for Spearman's Correlation Test:

- If the significance value is < 0.05 , there is a significant correlation between the variables (Hair, et al., 2018).
- Conversely, if the significance value is > 0.05 , there is no significant correlation between the variables (Hair, et al., 2018).

Table 6 shows the results of the Spearman's correlation test.

Tabel 6. Spearman Correlation Measurement

Hypothesis	Sig < 0.05	R	R ²	Decision
BA → CS	0.000	0.521	0.271	Accepted
BI → CS	0.000	0.557	0.310	Accepted
PQ → CS	0.000	0.661	0.437	Accepted
CS → CL	0.000	0.727	0.529	Accepted

Source: Processed Data by Researcher using SPSS 26

The data was processed using responses from closed-ended questions. It can be seen from the data that all hypothesized variables have the same significance level of 0.000. Therefore, it can be concluded that these variables are correlated. To determine the extent of the influence of these variables, R Square (R²) is classified into three levels (Field, 2017), as follows:

- R² $> 0,19$ = Weak
- R² $> 0,33$ = Moderate
- R² $> 0,67$ = Strong

From the correlation test, the following hypotheses were evaluated:

- H1: Brand Awareness positively affects customer satisfaction. Customer satisfaction is influenced by 27.1% due to brand awareness, which is considered a weak effect. Since the two variables are correlated, this hypothesis is accepted.
- H2: Brand Image positively affects customer satisfaction. Customer satisfaction is influenced by 31% due to brand image, which is considered a weak effect. Since the two variables are correlated, this hypothesis is accepted.
- H3: Perceived Quality positively and significantly affects customer satisfaction. Customer satisfaction is influenced by 43.7% due to perceived quality, which is considered a moderate effect. Since the two variables are correlated, this hypothesis is accepted.
- H4: Customer satisfaction is a key factor in influencing customer loyalty. Customer loyalty is influenced by 52.9% due to customer satisfaction, making it a key factor with a moderate effect. Since the two variables are correlated, this hypothesis is accepted.

All the hypotheses are accepted since there is a correlation among all five variables.

Research Discussion

The research findings from this study provide valuable insights into the relationship between brand awareness, brand image, perceived quality, customer satisfaction, and customer loyalty, particularly within the context of Telkomsel users in the Creative Business program at Universitas Indonesia. The findings are not only consistent with the existing literature but also contribute new perspectives to the understanding of these relationships.

Brand Awareness and Customer Satisfaction

The study reveals that brand awareness has a positive but relatively weak effect on customer satisfaction ($R^2 = 0.271$). This finding aligns with previous research suggesting that brand awareness is a fundamental component of customer satisfaction, as it influences the recognition and recall of the brand, which in turn affects purchasing decisions (Romaniuk, Wight, & Faulkner, 2017; Liebers, Breves, Schallhorn, & Schramm, 2019). However, the relatively low impact of brand awareness on customer satisfaction in this study suggests that while consumers recognize and recall the Telkomsel brand, other factors may play a more significant role in determining their satisfaction.

This outcome can be contextualized within the broader literature, which indicates that while brand awareness is crucial, it may not be sufficient on its own to drive customer satisfaction. As Sasmita and Suki (2015) and Ansary and Hashim (2018) noted, brand awareness must be complemented by positive brand experiences and perceptions to significantly impact satisfaction. This suggests that for Telkomsel, while high brand awareness is beneficial, the company needs to ensure that this awareness translates into positive consumer experiences to enhance satisfaction.

Brand Image and Customer Satisfaction

Brand image emerged as another significant factor influencing customer satisfaction, albeit with a slightly stronger impact than brand awareness ($R^2 = 0.310$). This finding corroborates the literature, which emphasizes the role of a strong, positive brand image in enhancing customer satisfaction by shaping consumer perceptions of quality and value (Andreani, Taniaji, & Puspitasari, 2012; Hamid, Ibrahim, Seesy, & Hasaballah, 2015). A favorable brand image can lead to higher customer satisfaction by aligning the brand's perceived qualities with customer expectations, as highlighted by Upamannyu and Sankpal (2014).

The study's results suggest that Telkomsel's brand image is relatively well-regarded among its users, contributing to their satisfaction. However, the moderate level of impact indicates that while Telkomsel's brand image is important, other factors may also significantly influence customer satisfaction. This aligns with the findings of Purohit (2017), who argued that a strong brand image must be supported by consistent and high-quality service delivery to fully satisfy customers.

Perceived Quality and Customer Satisfaction

Perceived quality was found to have the strongest impact on customer satisfaction ($R^2 = 0.437$) among the three factors examined. This finding is consistent with the extensive body of literature that positions perceived quality as a critical determinant of customer satisfaction (Olsen, 2002; Suchanek, Richter, & Kralova, 2015). The study suggests that Telkomsel's perceived quality, particularly in terms of signal strength and service reliability, is a key driver of satisfaction among its users.

This strong correlation is supported by Chakraborty and Sengupta (2014), who demonstrated that perceived quality is a pivotal factor in amplifying customer satisfaction in the mobile network context. The findings indicate that Telkomsel's efforts to maintain high service

quality are paying off in terms of customer satisfaction, underscoring the importance of continuously enhancing service quality to sustain and improve customer satisfaction levels.

Customer Satisfaction and Customer Loyalty

Finally, the study confirms a strong relationship between customer satisfaction and loyalty ($R^2 = 0.529$), which is consistent with the theoretical framework proposed in the literature (Luo, Homburg, & Wieseke, 2010; Kandampully & Suhartanto, 2000). The high impact of customer satisfaction on loyalty underscores the critical role that satisfaction plays in fostering repeat purchases and brand advocacy among Telkomsel users.

This finding aligns with the research by Agarwal and Dhingra (2023) and Kassim and Abdullah (2010), who noted that satisfied customers are more likely to remain loyal and engage in positive word-of-mouth, which is essential for brand growth. For Telkomsel, this suggests that efforts to enhance customer satisfaction—whether through improved service quality, better customer support, or more effective brand communication—are likely to yield significant returns in terms of customer loyalty.

Ultimately, the study's findings align well with the existing literature, reinforcing the importance of brand awareness, brand image, and perceived quality in driving customer satisfaction and loyalty. However, the varying degrees of impact among these factors highlight the need for a balanced approach in brand management. For Telkomsel, while brand awareness and image are important, the focus should perhaps be on consistently delivering high-quality services to maximize customer satisfaction and, by extension, customer loyalty. This study contributes to the academic and practical understanding of these relationships within the Indonesian telecommunications sector and provides actionable insights for brand managers seeking to enhance customer loyalty through improved brand perception and service quality.

CONCLUSION

This research aims to determine the influence of brand awareness, brand image, and perceived quality on customer loyalty within the Creative Business program at Universitas Indonesia. Based on the analysis conducted on a sample of 50 Creative Business students, using Spearman's correlation test in SPSS 26, along with previous studies as the theoretical foundation, this research found that brand awareness, brand image, and perceived quality significantly have positive effects on customer loyalty, mediated by the presence of customer satisfaction, and that satisfied customer does indeed lead to loyalty. Therefore, authors suggest that Telkomsel should continue to maintain and enhance the quality of its services and products. Consequently, the researcher also recommends that Telkomsel ensure customer satisfaction by conducting regular surveys or by improving its customer service to effectively receive feedback and evaluations from customers.

It can be concluded that all hypotheses are accepted and positively validated. The results and discussion of this study indicate that customers, who are respondents from the Creative Business program at Universitas Indonesia, tend to be satisfied with the services and products provided by Telkomsel. However, as this research context is limited to the scope of Creative Business students at Universitas Indonesia, authors suggest that future studies should include a wider scope of research subjects to enhance the knowledge in the similar field. This research also considered cross-sectional time scope, thus future studies are recommended to adopt longitudinal research, to investigate if customer satisfaction and customer loyalty may differ or change over a longer period of time.

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