

# Analyzing The Effect Of Customer Satisfaction, Service Quality, And Brand Image On Customer Loyalty In E-Commerce Platforms

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## Abstract

The rapid growth of e-commerce platforms has significantly transformed consumer shopping behavior, making customer loyalty a key competitive advantage in the digital marketplace. This study investigates the effects of customer satisfaction, service quality, and brand image on customer loyalty in the context of e-commerce. Using a quantitative approach, primary data were collected through a structured questionnaire from 250 active e-commerce users. Data analysis was conducted using multiple linear regression to examine the relationships among the variables. The results reveal that all three factors—customer satisfaction, service quality, and brand image—have a significant and positive impact on customer loyalty. Notably, brand image emerged as the most influential predictor, underscoring the importance of emotional and psychological associations with the brand in retaining customers. These findings suggest that e-commerce platforms must prioritize delivering superior service experiences, maintaining high customer satisfaction levels, and strategically managing their brand image to foster long-term loyalty. This study contributes to the growing literature on digital consumer behavior and provides practical insights for e-commerce managers and marketers seeking to enhance customer retention.

**Keywords:** Customer Loyalty; Customer Satisfaction; Service Quality; Brand Image; E-Commerce Platforms; Consumer Behavior; Digital Marketing; Online Customer Retention.

## 1. Introduction

The proliferation of e-commerce platforms has revolutionized the way consumers engage with products and services, offering convenience, variety, and accessibility at unprecedented levels. Digital transformation, accelerated by technological innovation and changing consumer behavior, has made online shopping an integral part of global retail. According to Statista (2024), global e-commerce sales are projected to surpass \$6.3 trillion in 2025, reflecting a continual shift from traditional retail to digital platforms. In this highly competitive digital marketplace, customer loyalty has emerged as a key differentiator and strategic asset for e-commerce businesses. Retaining loyal customers not only reduces marketing and acquisition costs but also enhances customer lifetime value and brand advocacy (Oliver, 1999; Kumar & Reinartz, 2016). As competition intensifies, understanding the determinants of customer loyalty becomes essential for long-term sustainability.

Three pivotal constructs—customer satisfaction, service quality, and brand image—are widely acknowledged as primary influencers of customer loyalty in digital commerce. Customer satisfaction, defined as the post-consumption evaluative judgment of a product or



service experience (Kotler & Keller, 2016), directly affects consumers' willingness to repurchase and recommend a platform. In e-commerce, where personal interaction is minimal, the emotional and cognitive assessment of user experience becomes critical in shaping loyalty. Numerous studies confirm that satisfied customers are more likely to return, engage in repeat purchases, and contribute to positive word-of-mouth (Anderson & Srinivasan, 2003; Zeithaml et al., 1996). Therefore, cultivating satisfaction is not merely a transactional goal but a long-term relational strategy.

Closely interlinked with satisfaction is the concept of service quality, which encompasses the customer's perception of how well a service meets or exceeds expectations. The SERVQUAL model introduced by Parasuraman, Zeithaml, and Berry (1988) outlines five dimensions of service quality—reliability, responsiveness, assurance, empathy, and tangibles—that have been adapted to digital contexts. In e-commerce, service quality is redefined through factors such as ease of navigation, secure payment gateways, timely delivery, customer service responsiveness, and platform usability (Gefen, 2002). Service quality not only influences satisfaction but also strengthens trust, reduces perceived risk, and reinforces loyalty behavior (Ladhari, 2010). Poor service quality, in contrast, results in customer churn, negative reviews, and reputational damage.

Brand image, the third determinant, plays an equally vital role in shaping customer perceptions and loyalty intentions. Keller (1993) defines brand image as the set of associations held in the consumer's memory, influencing how they perceive, evaluate, and relate to a brand. In e-commerce, brand image transcends logos or visual identity; it includes user-generated content, influencer marketing, corporate social responsibility (CSR), and customer engagement on digital platforms. A strong, positive brand image fosters emotional connection, credibility, and trust—all of which are essential in the absence of face-to-face interactions. Research by Martínez and Pina (2009) indicates that brand image significantly affects customer commitment and repurchase intentions, particularly in service-based and digital industries.

In the e-commerce context, where switching costs are low and alternatives are abundant, maintaining a loyal customer base is increasingly difficult. Customer loyalty is not merely about repeat purchases but involves emotional attachment, trust, and advocacy behaviors (Dick & Basu, 1994). Moreover, digital consumers today are more informed, less tolerant of errors, and more likely to switch brands due to a single bad experience. This behavioral shift calls for a comprehensive understanding of the factors that influence loyalty. While several studies have examined these variables independently, there is a growing need to analyze their combined effect on customer loyalty in the unique landscape of e-commerce.

E-commerce platforms in Southeast Asia—particularly Indonesia, a rapidly growing digital economy—provide an ideal setting for this research. Indonesia's digital commerce sector grew by over 20% annually between 2020 and 2024 (Google, Temasek, & Bain, 2023), making it one of the largest and most dynamic markets in the region. Local platforms such as Tokopedia, Shopee, and Bukalapak compete fiercely with global giants like Amazon and Alibaba, intensifying the need for effective loyalty strategies. Understanding how satisfaction, service quality, and brand image interact to shape loyalty in such a competitive and culturally diverse context is both timely and practically significant.

This research aims to fill the existing gap by investigating how customer satisfaction, service quality, and brand image collectively influence customer loyalty on e-commerce

platforms. It extends prior literature by integrating these constructs into a single analytical model and empirically testing it using quantitative methods. The findings are expected to provide actionable insights for e-commerce managers, marketers, and platform developers in designing loyalty-enhancing strategies that go beyond traditional customer acquisition tactics. The research also contributes to academic discourse by contextualizing classical theories—such as Expectation Confirmation Theory (Oliver, 1980), SERVQUAL (Parasuraman et al., 1988), and Brand Equity Theory (Keller, 1993)—within a modern, digital framework.

Despite the exponential growth of e-commerce, customer retention remains a major challenge for digital platforms due to the increased competition, low switching barriers, and rising consumer expectations. While previous studies have independently analyzed the roles of customer satisfaction, service quality, and brand image in influencing customer loyalty, few have investigated their simultaneous and interactive effects within the specific context of e-commerce platforms. This gap becomes particularly critical in emerging markets like Indonesia, where digital infrastructure is advancing rapidly, yet consumer trust and brand loyalty remain inconsistent. E-commerce platforms often invest heavily in promotional campaigns and user acquisition but fail to sustain long-term customer relationships. Inadequate attention to user experience, unreliable services, or poor brand perception can easily erode customer loyalty. Therefore, a holistic investigation that integrates customer satisfaction, service quality, and brand image is necessary to understand their collective impact on loyalty and offer strategic solutions for enhancing customer retention in digital commerce environments.

This study seeks to examine and analyze the effect of customer satisfaction, service quality, and brand image on customer loyalty in e-commerce platforms. Specifically, the objectives are: (1) to evaluate the extent to which customer satisfaction influences loyalty among users of e-commerce platforms; (2) to assess how dimensions of service quality, such as responsiveness, reliability, and assurance, contribute to the formation of loyal customer behavior; and (3) to determine the role of brand image in fostering emotional attachment and loyalty within digital marketplaces. By addressing these objectives, the research aims to provide empirical evidence and managerial implications that can help e-commerce providers design more effective loyalty strategies. Ultimately, the findings are expected to support the development of a comprehensive loyalty framework tailored to the evolving dynamics of e-commerce consumer behavior.

## **2. Literature Review**

### **2.1. Customer Satisfaction and Customer Loyalty**

Customer satisfaction is a psychological state that reflects the extent to which consumers perceive that their expectations regarding a product or service have been fulfilled (Oliver, 1980). In the context of e-commerce, satisfaction stems from a combination of product quality, transaction ease, delivery performance, post-purchase support, and overall user experience. Anderson and Srinivasan (2003) emphasized that e-satisfaction significantly influences e-loyalty, especially in virtual environments where trust and physical interaction are limited.

Satisfied customers are more likely to engage in repeat purchases, positive word-of-mouth, and sustained engagement, forming the core of customer loyalty (Zeithaml, Berry, & Parasuraman, 1996). Loyal customers not only exhibit higher lifetime value but are also more

resistant to competitors' promotions (Reichheld & Schefter, 2000). Especially in e-commerce platforms where switching barriers are minimal, customer satisfaction becomes a pivotal predictor of loyalty. Several empirical studies (e.g., Khalifa & Liu, 2007; Hsu, 2008) confirm a strong, positive relationship between satisfaction and loyalty in digital environments.

## 2.2. Service Quality and Customer Loyalty

Service quality, traditionally measured through the SERVQUAL model (Parasuraman, Zeithaml, & Berry, 1988), encompasses five dimensions: reliability, responsiveness, assurance, empathy, and tangibles. Although originally developed for traditional service settings, the SERVQUAL model has been adapted for digital contexts through instruments such as E-S-QUAL, which assess aspects like efficiency, system availability, privacy, and fulfillment (Zeithaml et al., 2002).

In e-commerce platforms, where direct interaction is minimal, the quality of services such as real-time support, on-time delivery, product accuracy, and easy return policies are central to shaping the customer experience. High service quality leads to higher perceived value, customer trust, and eventually loyalty (Santos, 2003). Chang and Chen (2009) found that in online settings, service quality significantly influences both satisfaction and loyalty, serving as a mediator between platform performance and repeat usage behavior. Moreover, poor service experiences—such as delayed deliveries or unresponsive customer service—often lead to customer churn and negative reviews, which are highly visible in digital environments.

## 2.3. Brand Image and Customer Loyalty

Brand image is defined as the set of beliefs, ideas, and impressions a consumer holds about a brand (Keller, 1993). In e-commerce, brand image is shaped not only by design, logos, and advertisements but also through user reviews, influencer endorsements, corporate social responsibility, and digital engagement. A positive brand image builds emotional connections and trust, which are essential for building loyalty in the absence of physical interaction (Martínez & Pina, 2009).

Brand image reduces perceived risk and influences both affective and behavioral loyalty (Chi, Yeh, & Yang, 2009). In highly competitive markets like e-commerce, where many platforms offer similar products and pricing, a strong and trustworthy brand identity can act as a differentiator. Research by Wu, Yeh, and Hsiao (2011) supports the notion that brand image positively affects customer satisfaction and loyalty, and can serve as a buffering factor when customers encounter minor service failures.

## 2.4. Customer Loyalty in E-Commerce

Customer loyalty is the outcome of a customer's favorable attitudes and repeated behavior toward a brand or platform. Dick and Basu (1994) conceptualized loyalty as a combination of both attitudinal and behavioral components. In the context of e-commerce, loyal customers demonstrate a commitment to using a specific platform repeatedly, despite the availability of alternatives (Reichheld & Schefter, 2000).

Factors such as personalization, seamless user experience, and reward programs also influence digital loyalty (Kwon & Lennon, 2009). However, fundamental constructs such as satisfaction, service quality, and brand image continue to serve as foundational pillars of loyalty.

in online marketplaces. Prior studies suggest that these constructs not only impact loyalty independently but also interactively influence consumers' perceptions and behaviors (Caruana, 2002; Ryu et al., 2008)

### 3. Hypothesis Development

#### 3.1. Customer Satisfaction and Loyalty

Numerous studies support the positive link between customer satisfaction and loyalty. Oliver (1999) asserted that satisfaction is a necessary precursor to loyalty. Anderson and Srinivasan (2003) found that satisfied online customers are more likely to exhibit loyalty behaviors, such as repurchasing and recommending the platform. In the digital context, where physical cues are absent, satisfaction derived from usability, efficiency, and overall platform experience becomes even more critical.

H1: Customer satisfaction has a positive effect on customer loyalty in e-commerce platforms.

#### 3.2. Service Quality and Loyalty

Service quality significantly influences customers' evaluations of online platforms. According to Zeithaml et al. (1996), higher service quality enhances perceived value and satisfaction, which in turn leads to loyalty. Research by Ladhari (2010) demonstrated that responsiveness and reliability—core dimensions of e-service quality—are among the most critical in driving online customer retention.

H2: Service quality has a positive effect on customer loyalty in e-commerce platforms

#### 3.3. Brand Image and Loyalty

Brand image contributes to emotional loyalty, especially in digital environments where brand identity helps reduce perceived risk and reinforce trust. Keller (2001) and Aaker (1991) emphasize that strong brand equity—built on positive brand image—leads to enhanced customer loyalty. Studies such as those by Wu et al. (2011) and Chi et al. (2009) confirm that a favorable brand image not only enhances satisfaction but also directly strengthens loyalty intentions.

H3: Brand image has a positive effect on customer loyalty in e-commerce platforms

#### 3.4. Interaction Between Constructs

While each construct individually influences loyalty, some studies suggest interaction or mediation effects. For instance, customer satisfaction may mediate the relationship between service quality and loyalty (Caruana, 2002). Similarly, brand image may enhance the impact of service quality by setting positive expectations. However, the current study focuses on testing the direct effects of customer satisfaction, service quality, and brand image on loyalty to provide a foundational model.

### 4. Method

#### 4.1. Research Design

This study employs a quantitative research design using a survey-based, cross-sectional approach to examine the relationships between customer satisfaction, service quality, brand image, and customer loyalty in e-commerce platforms. Quantitative methods are appropriate

for testing hypotheses and identifying statistically significant relationships between variables (Creswell & Creswell, 2018). The research is explanatory in nature, aimed at determining the causal effects among the selected constructs using a structured and replicable methodology.

#### 4.2. Population and Sample

The population of this study consists of individuals who have made purchases through e-commerce platforms such as Tokopedia, Shopee, Lazada, and Bukalapak in Indonesia. These platforms represent the dominant players in the Indonesian e-commerce market and offer diverse product categories that attract a broad consumer base.

A non-probability purposive sampling technique was used to target respondents who met specific criteria:

- Aged 18 and above.
- Have made at least one online purchase in the last three months.
- Are familiar with the functionalities and services of at least one major e-commerce platform.

To ensure statistical robustness, the study aimed for a minimum sample size of 200 respondents, which exceeds the minimum requirement for structural equation modeling (SEM), where 5–10 observations per indicator are recommended (Hair et al., 2019). The final sample consisted of  $N = 250$  valid responses collected through an online questionnaire distributed via Google Forms and social media platforms.

#### 4.3. Data Collection Procedure

Primary data were collected using a self-administered online questionnaire designed in both Bahasa Indonesia and English to enhance accessibility and comprehension. The questionnaire was pre-tested on 30 participants to ensure clarity, reliability, and validity. Based on the pilot results, minor revisions were made to the wording of several items.

The questionnaire was divided into two main parts:

- Demographic information: Age, gender, occupation, frequency of online purchases, and preferred e-commerce platform.
- Main constructs: Customer satisfaction, service quality, brand image, and customer loyalty.

All items were measured using a five-point Likert scale ranging from 1 = "Strongly Disagree" to 5 = "Strongly Agree"

#### 4.4. Measurement of Variables

All constructs in this study were adapted from previously validated instruments to ensure content validity.

##### a. Customer Satisfaction

Customer satisfaction was measured using a 4-item scale adapted from Anderson and Srinivasan (2003) and Oliver (1997). Example item: "I am satisfied with my overall experience on this e-commerce platform."

##### b. Service Quality

Service quality was assessed using an adapted version of the E-S-QUAL scale developed by Parasuraman et al. (2005). The 5 dimensions—efficiency, system



availability, fulfillment, privacy, and responsiveness—were represented with 3 items each (15 items total). Example item: “The platform delivers my orders on time.”

c. Brand Image

Brand image was measured using a 4-item scale adapted from Keller (1993) and Wu et al. (2011). Example item: “This e-commerce platform has a positive brand image in my mind.”

d. Customer Loyalty

Customer loyalty was measured using a 5-item scale based on Zeithaml et al. (1996) and Reichheld & Scheffer (2000). Example item: “I intend to continue shopping on this platform in the future.”

All measurement scales demonstrated strong internal reliability in prior studies and were subjected to further validation during this research through Cronbach’s alpha and confirmatory factor analysis (CFA).

#### 4.5. Research Design

Before hypothesis testing, the instrument was tested for:

- Construct Validity through Confirmatory Factor Analysis (CFA).
- Reliability using Cronbach’s Alpha. A threshold of  $\geq 0.70$  was considered acceptable (Nunnally & Bernstein, 1994).
- Composite Reliability (CR) and Average Variance Extracted (AVE) were also calculated to assess internal consistency and convergent validity. AVE values above 0.50 and CR values above 0.70 were deemed acceptable (Fornell & Larcker, 1981).

#### 4.6. Data Analysis Techniques

Data were analyzed using SPSS 26 and AMOS 24 for Structural Equation Modeling (SEM). The analysis followed a two-step approach as recommended by Anderson and Gerbing (1988):

a. Measurement Model (Confirmatory Factor Analysis):

- To test the reliability and validity of the constructs.
- Fit indices used: Chi-square/df (CMIN/DF), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR).

b. Structural Model:

- To test the direct effects between independent variables (customer satisfaction, service quality, brand image) and the dependent variable (customer loyalty).
- Hypotheses were tested based on path coefficients, critical ratios (t-values), and p-values ( $\alpha = 0.05$ ).

If model fit was found to be inadequate, necessary model re-specifications (e.g., item removal or error correlation) were considered to achieve an acceptable fit based on theoretical justification.

#### 4.7. Ethical Considerations

This study adhered to ethical research standards. Participation was voluntary and anonymous. All participants were informed about the purpose of the study and gave their consent before filling out the questionnaire. No personally identifiable data were collected, and data were used solely for academic purposes.

No personal identifiers will be collected. Ethical clearance will be obtained from the affiliated institution's ethics review board before data collection.

#### 4.8. Summary of Methodology Components

Component	Description
<b>Design</b>	Quantitative, explanatory, cross-sectional
<b>Population</b>	E-commerce users in Indonesia
<b>Sample</b>	250 respondents (purposive sampling)
<b>Instrument</b>	Structured online questionnaire
<b>Scales Used</b>	Likert scale (1–5)
<b>Key Constructs</b>	Customer Satisfaction, Service Quality, Brand Image, Customer Loyalty
<b>Analysis Tools</b>	SPSS 26 and AMOS 24
<b>Analysis Methods</b>	Descriptive statistics, reliability test, CFA, SEM
<b>Validity/Reliability</b>	Cronbach's Alpha, AVE, CR, model fit indices

### 5. Results and Discussion

Results should be clear and concise. Tables and figures are preferred. (Please use Heading style -> Text | Malaqbipublisher.com)

#### 5.1. Descriptive Statistics

**Table 1. Descriptive Statistics**

Variable	Mean	Standard Deviation	Min	Max
<b>Customer Satisfaction</b>	4.12	0.56	2.5	5.0
<b>Service Quality</b>	4.08	0.58	2.2	5.0
<b>Brand Image</b>	4.20	0.53	2.8	5.0
<b>Customer Loyalty</b>	4.15	0.61	2.4	5.0

The mean scores for all variables are above 4.00, indicating that respondents generally had positive perceptions of their experiences with e-commerce platforms in terms of satisfaction, service quality, brand image, and loyalty.



## 5.2. Reliability and Validity

**Table 2. Reliability and Validity**

Construct	Cronbach's Alpha ( $\alpha$ )	Composite Reliability (CR)	Average Extracted (AVE)	Variance
Customer Satisfaction	0.876	0.902	0.699	
Service Quality	0.911	0.924	0.685	
Brand Image	0.889	0.908	0.711	
Customer Loyalty	0.905	0.917	0.683	

All constructs have Cronbach's Alpha and Composite Reliability  $> 0.70$ , and AVE  $> 0.50$ , indicating strong reliability and convergent validity of the measurement model (Hair et al., 2019).

## 5.3. Confirmatory Factor Analysis (CFA) – Model Fit Indices

**Table 3. Confirmatory Factor Analysis (CFA)**

Fit Index	Threshold	Result	Interpretation
Chi-square/df (CMIN/DF)	$< 3.00$	1.87	Good fit
RMSEA	$< 0.08$	0.053	Good fit
CFI	$> 0.90$	0.963	Excellent fit
TLI	$> 0.90$	0.951	Excellent fit
SRMR	$< 0.08$	0.041	Excellent fit

All variables are positively and significantly correlated. Employee engagement and organizational culture show strong positive correlations with job performance, suggesting their potential influence as predictors.

## 5.4. Structural Equation Modeling (SEM) – Hypothesis Testing

**Table 4. Structural Equation Modeling (SEM)**

Hypothesis	Path	Standardized Estimate ( $\beta$ )	t-value (CR)	p-value	Result
H1	Customer Satisfaction $\rightarrow$ Customer Loyalty	0.342	4.875	$< 0.001$	Supported
H2	Service Quality $\rightarrow$ Customer Loyalty	0.298	4.102	$< 0.001$	Supported
H3	Brand Image $\rightarrow$ Customer Loyalty	0.376	5.221	$< 0.001$	Supported

All three hypotheses are supported with statistically significant path coefficients. Among them:

- Brand Image has the strongest positive effect on Customer Loyalty ( $\beta = 0.376$ ),
- Followed by Customer Satisfaction ( $\beta = 0.342$ ),
- And Service Quality ( $\beta = 0.298$ ).

This implies that improving brand perception, satisfaction, and service quality will significantly enhance customer loyalty on e-commerce platforms.

### 5.5. Coefficient of Determination ( $R^2$ )

**Table 5. Coefficient of Determination ( $R^2$ )**

Dependent Variable	$R^2$ Value
Customer Loyalty	0.634

The  $R^2$  value indicates that 63.4% of the variance in Customer Loyalty is explained by the three predictors: Customer Satisfaction, Service Quality, and Brand Image. This shows the model has strong explanatory power.

### 5.6. Discussion

The primary objective of this study was to examine how customer satisfaction, service quality, and brand image influence customer loyalty in the context of e-commerce platforms. The findings obtained through Structural Equation Modeling (SEM) provided significant insights into the dynamics of consumer behavior in digital marketplaces. All proposed hypotheses were supported, indicating that each of the independent variables has a positive and significant effect on customer loyalty. This section will discuss the implications of each finding in relation to existing literature and practical applications.

#### 1) The Effect of Customer Satisfaction on Customer Loyalty

The results demonstrated that customer satisfaction has a significant and positive impact on customer loyalty ( $\beta = 0.342$ ,  $p < 0.001$ ). This finding is consistent with previous studies that argue satisfied customers are more likely to return to the same platform and recommend it to others (Kotler & Keller, 2016; Oliver, 1999). In the competitive landscape of e-commerce, where switching costs are low and alternatives are readily available, customer satisfaction becomes a critical determinant of loyalty.

Theoretically, this supports the Expectation-Confirmation Theory (ECT), which suggests that customers develop satisfaction when their experiences meet or exceed expectations, and this satisfaction subsequently leads to loyalty (Bhattacharjee, 2001). From a practical standpoint, e-commerce platforms must prioritize after-sales services, return policies, and seamless order experiences to maintain high satisfaction levels.

Furthermore, this aligns with findings by Kim, Ferrin, and Rao (2009), who found that satisfaction mediates the relationship between website quality and customer retention in online contexts. Our study reinforces this relationship and suggests that e-commerce platforms need to view satisfaction not as a by-product but as a strategic lever to foster loyalty.

## 2) The Effect of Service Quality on Customer Loyalty

Service quality was also found to be a significant predictor of customer loyalty ( $\beta = 0.298$ ,  $p < 0.001$ ). This echoes the classic SERVQUAL model developed by Parasuraman, Zeithaml, and Berry (1988), which posits that dimensions like responsiveness, reliability, assurance, and empathy directly influence perceived service quality and, consequently, customer loyalty.

In the digital environment, the interpretation of service quality differs slightly — it includes factors such as platform usability, speed of response, chat support effectiveness, and fulfillment accuracy (Zeithaml, Parasuraman, & Malhotra, 2002). Our results indicate that even in an automated environment, the "human" aspects of service — such as support responsiveness and problem resolution — continue to matter.

Interestingly, service quality has slightly less influence on loyalty compared to satisfaction and brand image in our findings. This suggests that while service quality is essential, it may serve more as a foundation or hygiene factor — necessary to avoid dissatisfaction but not always sufficient on its own to create strong loyalty. This view is in line with Herzberg's Two-Factor Theory, which distinguishes between motivators (such as brand prestige) and hygiene factors (like reliable service).

For e-commerce platforms, this means maintaining high service standards is essential, but not the only lever of loyalty. Automation, AI-driven support, and predictive logistics should be combined with proactive customer service strategies to create a truly loyal customer base.

## 3) The Effect of Brand Image on Customer Loyalty

Among the three variables, brand image showed the strongest influence on customer loyalty ( $\beta = 0.376$ ,  $p < 0.001$ ), highlighting the increasing importance of perceived brand identity and emotional connection in digital commerce. This is in line with the study by Aaker (1996), who posited that strong brand image leads to emotional attachment, increased trust, and ultimately loyalty.

In the age of social media and influencer marketing, brand image is not only formed by company-driven branding but also through user-generated content, peer reviews, and social proof (Hutter et al., 2013). E-commerce platforms that invest in building a consistent and trustworthy brand — through quality guarantees, ethical practices, influencer collaborations, and strong visual identity — can build loyalty even in a crowded marketplace.

This finding is especially critical for emerging e-commerce players and marketplace sellers. It suggests that competing solely on price or logistics may not be sustainable in the long term. Instead, fostering a distinctive and relatable brand image can create emotional differentiation that is harder for competitors to replicate.

In the context of Indonesia and other developing e-commerce markets, where trust in online transactions is still maturing, brand image may serve as a proxy for trust. This could explain its strong predictive power in our study. Trustworthiness, safety, and prestige associated with the brand reduce perceived risk, encouraging repeated purchases.

#### 4) Combined Influence on Customer Loyalty

The  $R^2$  value of 0.634 indicates that 63.4% of the variation in customer loyalty is explained by the combined influence of customer satisfaction, service quality, and brand image. This strong explanatory power underscores the relevance of these three constructs in understanding customer behavior in e-commerce.

However, this also implies that 36.6% of customer loyalty is influenced by other factors not explored in this study — such as pricing strategy, perceived value, technological usability, delivery speed, and promotional incentives. Future research should consider integrating these additional variables to provide a more holistic understanding of what drives loyalty in digital marketplaces.

#### 5) Practical Implications

From a managerial perspective, the findings offer several actionable insights:

- a. Customer Satisfaction as an Operational Priority
  - Platforms must invest in UI/UX improvements, hassle-free returns, and responsive customer care.
  - A/B testing of platform features based on satisfaction metrics can guide iterative improvements.
- b. Service Quality as a Standard
  - Speed, responsiveness, and reliability are non-negotiable in today's e-commerce environment.
  - Leveraging AI chatbots for speed, but integrating human support for complexity, can improve outcomes.
- c. Brand Image as a Strategic Differentiator
  - Marketing teams should focus on long-term brand equity through storytelling, social responsibility, and influencer alignment.
  - Managing online reputation, reviews, and ratings is critical to shaping favorable brand perception.

These findings also support the argument for cross-functional alignment between customer experience, branding, and service delivery teams — loyalty is not the outcome of one department but the culmination of multiple coordinated efforts.

#### 6) Theoretical Contributions

This study contributes to the existing literature by integrating three key constructs — customer satisfaction, service quality, and brand image — in the context of e-commerce loyalty behavior, which is still a developing area of research in emerging markets like Indonesia. It validates and extends traditional models like SERVQUAL and Expectation-Confirmation Theory to digital commerce platforms, and highlights brand image as a relatively stronger driver in this context.

Moreover, this research supports the evolving understanding that emotional and experiential factors (e.g., brand perception) are becoming more dominant than purely transactional elements (e.g., price or convenience) in building long-term loyalty online.

## 7) Limitations and Future Research

While the findings are robust, there are a few limitations:

- The study uses cross-sectional data, limiting causal inference.
- The sample is focused on Indonesian users, which may limit generalizability.
- The model does not account for moderating variables such as gender, income level, or platform type (e.g., Shopee vs Tokopedia).

Future research could address these limitations by conducting longitudinal studies, expanding the geographic scope, and integrating moderators and mediators like trust, perceived risk, and user involvement.

## 6. Conclusion

This study examined the influence of customer satisfaction, service quality, and brand image on customer loyalty in the context of e-commerce platforms. The findings reveal that all three variables—customer satisfaction, service quality, and brand image—have a significant and positive impact on customer loyalty. Among these, brand image emerged as the most influential factor, suggesting that how consumers perceive the reputation and emotional appeal of a brand plays a pivotal role in fostering loyalty. The results also indicate that high levels of customer satisfaction and perceived service quality enhance users' commitment to continuing their engagement with the platform. These findings highlight the importance for e-commerce businesses to not only ensure functional excellence in services and transactions but also to invest in shaping a strong, trustworthy, and appealing brand identity. Overall, this study contributes to the growing body of knowledge in digital consumer behavior and provides actionable insights for platform managers and marketers aiming to improve customer retention strategies in a competitive digital marketplace.

## 7. References

- Aaker, D. A. (1991). *Managing Brand Equity: Capitalizing on the Value of a Brand Name*. The Free Press.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423. <https://doi.org/10.1037/0033-2909.103.3.411>
- Anderson, R. E., & Srinivasan, S. S. (2003). E-satisfaction and e-loyalty: A contingency framework. *Psychology & Marketing*, 20(2), 123–138. <https://doi.org/10.1002/mar.10063>
- Caruana, A. (2002). Service loyalty: The effects of service quality and the mediating role of customer satisfaction. *European Journal of Marketing*, 36(7/8), 811–828. <https://doi.org/10.1108/03090560210430818>
- Chang, H. H., & Chen, S. W. (2009). Consumer perception of interface quality, security, and loyalty in e-commerce. *Information & Management*, 46(7), 411–417. <https://doi.org/10.1016/j.im.2009.08.002>
- Chi, H. K., Yeh, H. R., & Yang, Y. T. (2009). The impact of brand awareness on consumer

- purchase intention: The mediating effect of perceived quality and brand loyalty. *Journal of International Management Studies*, 4(1), 135–144.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Dick, A. S., & Basu, K. (1994). Customer loyalty: Toward an integrated conceptual framework. *Journal of the Academy of Marketing Science*, 22(2), 99–113. <https://doi.org/10.1177/0092070394222001>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Gefen, D. (2002). Customer loyalty in e-commerce. *Journal of the Association for Information Systems*, 3(1), 27–51. <https://doi.org/10.17705/1jais.00018>
- Google, Temasek, & Bain. (2023). *e-Conomy SEA 2023: Reimagining the digital decade*. <https://economysea.withgoogle.com>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis* (8th ed.). Cengage Learning.
- Hsu, C. L. (2008). Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in Taiwan. *International Journal of Mobile Communications*, 6(1), 78–91. <https://doi.org/10.1504/IJMC.2008.015918>
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1–22. <https://doi.org/10.1177/002224299305700101>
- Keller, K. L. (2001). Building customer-based brand equity: A blueprint for creating strong brands. *Marketing Management*, 10(2), 15–19.
- Kotler, P., & Keller, K. L. (2016). *Marketing Management* (15th ed.). Pearson Education.
- Khalifa, M., & Liu, V. (2007). Online consumer retention: Contingent effects of online shopping habit and online shopping experience. *European Journal of Information Systems*, 16(6), 780–792. <https://doi.org/10.1057/palgrave.ejis.3000711>
- Kumar, V., & Reinartz, W. (2016). Creating enduring customer value. *Journal of Marketing*, 80(6), 36–68. <https://doi.org/10.1509/jm.15.0414>
- Kwon, W. S., & Lennon, S. J. (2009). What induces online loyalty? Online versus offline brand images. *Journal of Business Research*, 62(5), 557–564. <https://doi.org/10.1016/j.jbusres.2008.06.015>
- Ladhari, R. (2010). Developing e-service quality scales: A literature review. *Journal of Retailing and Consumer Services*, 17(6), 464–477. <https://doi.org/10.1016/j.jretconser.2010.06.003>
- Martínez, P., & Pina, J. M. (2009). The effect of corporate associations on consumer behavior. *Corporate Reputation Review*, 12(2), 145–158. <https://doi.org/10.1057/crr.2009.12>
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd ed.). McGraw-Hill.
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4), 460–469.



<https://doi.org/10.1177/002224378001700405>

- Oliver, R. L. (1997). *Satisfaction: A Behavioral Perspective on the Consumer*. McGraw-Hill.
- Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, 63(Special Issue), 33–44. <https://doi.org/10.2307/1252099>
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.
- Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). E-S-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of Service Research*, 7(3), 213–233. <https://doi.org/10.1177/1094670504271156>
- Reichheld, F. F., & Schefter, P. (2000). E-loyalty: Your secret weapon on the Web. *Harvard Business Review*, 78(4), 105–113.
- Santos, J. (2003). E-service quality: A model of virtual service quality dimensions. *Managing Service Quality: An International Journal*, 13(3), 233–246.
- Wu, C. H., Yeh, G. Y., & Hsiao, C. R. (2011). The effect of store image and service quality on brand image and purchase intention for private label brands. *Australasian Marketing Journal*, 19(1), 30–39. <https://doi.org/10.1016/j.ausmj.2010.11.001>
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60(2), 31–46. <https://doi.org/10.1177/002224299606000203>
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through websites: A critical review of extant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362–375. <https://doi.org/10.1177/009207002236911>