

The Influence Of E-Service Quality And Perceived Value On Customer Loyalty Through E-Trust And Customer Satisfaction In The Klik Indomaret Application

Navira Ghasani Rahman^{1*}, Heppy Millanyani²

^{1,2} Master of Management Study Program - PJJ, Faculty of Economics and Business,
Telkom University, Bandung, Indonesia.

*Corresponding Author:

Email: naviraghasanir@student.telkomuniversity.ac.id

Abstract.

The rise of digital technology has fueled the growth of e-commerce in Indonesia, including mobile apps like Klik Indomaret, a digital platform by one of the country's largest minimarket chains. Despite its convenience and user-friendly features, Klik Indomaret struggles with customer loyalty, as seen in moderate app ratings and mixed reviews. While previous studies show that e-service quality, perceived value, and e-trust can enhance satisfaction and loyalty, this relationship isn't always consistent in practice. This study investigates the impact of e-service quality and perceived value on customer loyalty, with e-trust and satisfaction as mediating variables. Using a quantitative approach and PLS-SEM analysis of survey data from Klik Indomaret users, the research offers insights into digital consumer behavior and provides strategic recommendations for improving customer retention.

Keywords: E-Service Quality; Customer and Indomaret.

I. INTRODUCTION

With a huge selection of everyday and necessary items, Indomaret is Indonesia's biggest minimarket franchise network. Indomaret has more than 18,000 locations around the country, with about 38% being franchised and the remainder being owned by PT Indomarco Prismatama. It is conveniently located near offices, public spaces, residential neighborhoods, and highways. Under the motto "easy and economical," it seeks to make every day purchasing easier for customers. The company supplies more than 4,800 product categories to all locations throughout Indonesia through its 17 distribution hubs. A change in customer behavior is reflected in Indonesia's e-commerce industry's explosive expansion. Kintradinata and Hidayah (2023) emphasize that the valence and credibility of content on digital media greatly influence purchase intention.

This concept aligns with findings from research on e-service and perceived value, which trigger digital trust and customer satisfaction, ultimately driving customer loyalty. We Are Social and Kepios (2024) estimate that 64.2% of Indonesian internet users trade online, and that the market is expected to grow to a size of US\$62 billion by 2025 (Statista, 2024). This pattern emphasizes how internet marketplaces like Klik Indomaret are becoming more and more integrated into daily life. According to Fathin and Millanyani (2021), their study results show that online reviews and ratings indirectly increase user trust and trigger purchase intentions. This supports the research model approach, where e-service quality and perceived value enhance e-trust and customer satisfaction, which in turn drive customer loyalty. A mobile app called Klik Indomaret was released in early 2019 with the goal of increasing Indomaret's online sales and removing the need to visit physical stores by making purchasing more effective and simpler (Arisonndha et al., 2023).

II. BASIC THEORY AND FRAMEWORK

2.1. E-commerce

E-commerce, or electronic commerce, is a method of use or E-commerce is the practice of conducting business digitally between businesses and individuals through websites or applications on the

internet (Laudon & Traver, 2014). It is not the same as e-business, which includes all digital business operations, such as e-learning and collaboration (Turban et al., 2012).

E-commerce categories (Laudon & Traver, 2014):

- a. Business to consumer, or B2C
- b. Business to business, or B2B
- c. Consumer to consumer, or C2C
- d. Using social media for social e-commerce
- e. Using mobile devices for e-commerce
- f. Local e-commerce, which is location-based

2.3 Marketing

The term "marketing," which comes from the word "market," describes a wide range of actions meant to comprehend client needs and provide value. To create enduring relationships with customers, it includes product planning, pricing, distribution, and promotion (Kotler & Keller, 2021; Armstrong et al., 2020). Marketing encompasses more than just selling; it also involves creating value and managing client relationships strategically. The American Marketing Association (2020) defines it as the process of organizing and carrying out the development, pricing, distribution, and promotion of concepts, products, and services in order to meet the needs of both individuals and organizations.

Typically, the marketing process entails:

- a. Recognizing client needs
- b. Offering appropriate products or services
- c. Increasing demand for products
- d. Making certain that everyone is satisfied (Armstrong et al., 2020)

2.4 Customer Behavior

Kotler and Armstrong (2020) define consumer buying behavior as the decisions made by families and individuals regarding purchases for their own use. There are four primary factors that drive this behavior:

- a. Cultural Factors

Individual values and behaviours are based on culture. Different market segments are produced by subcultures that are based on nationality, religion, ethnicity, or geography. Purchase behavior is also influenced by social class, which is determined by factors like income, occupation, and level of education.

- b. Social Factors

Reference Groups: Groups that have a direct or indirect impact on a person's purchasing decisions. Family: Both the birth family and the married family are important reference groups that impact consumer choices. Roles and Status: A person's purchase decisions are influenced by their role in different organizations, such as their family or place of employment.

- c. Personal Factors

These include age, life stage, income, occupation, personality, self-concept, and personal values.

- d. Psychological Factors

Emotions, beliefs, attitudes, and perception all shape how consumers make decisions.

2.5 E-service quality

E-service quality is the term used to describe service quality in online situations. Zeithaml, Parasuraman, and Malhotra (2002) define it as the capacity of a website to offer efficient and successful online buying, purchasing, and service fulfillment capabilities. According to Santos (2003), it is the general assessment of the quality of services provided online by customers. The definition from Ribbink et al. (2004), which lists five essential components of e-service quality, is used in this study:

- a. Ease of Use (Reibstein, 2002): The degree to which users may place orders and obtain information on the website with ease.
- b. E-scape: The website's aesthetics and layout that improve user comfort (Van Riel et al., 2004).
- c. Customization: The degree to which services are tailored to the tastes or previous actions of users.
- d. Responsiveness: The speed and effectiveness with which the website or business answers user questions.

- e. Assurance (Wolfenbarger & Gilly, 2003): The website's dependability and security when managing user data.

Zeithaml et al. (2002) also found five additional dimensions:

- a. Information Availability and Content: The availability and comprehensibility of details about goods and services.
- b. Usability: Elements such as website structure, layout, download speed, and search capabilities.
- c. Privacy and Security: Safeguarding users' financial and personal information and obtaining their informed consent before using it.
- d. Graphic Style: The color scheme, picture dimensions, animations, and visual arrangement.
- e. Fulfillment (Wolfenbarger & Gilly, 2003): Correctness of order processing, product depiction, and delivery schedules.

To evaluate the platform's e-service quality, this study incorporates definitions from Santos (2003), Reibstein (2002), Van Riel et al. (2004), and Wolfenbarger & Gilly (2003).

2.6 E-trust

The readiness of one party to be exposed to the activities of another, independent of the ability to monitor or control that party, is known as e-trust. It is predicated on the expectation that the other party will carry out specific actions that are significant to the trustor. Tadelho (2009) asserts that e-trust arises in settings where interactions are carried out via digital devices, moral and social influences are viewed differently, and there is no physical contact (Rubab Ashiq, 2023). Kotler and Keller (2020) define trust. Based on interpersonal traits, competence, integrity, honesty, and friendliness are the four indications that show consumer trust, which is understood as a company's desire to rely on a business partner.

2.7 Perceived value

The ratio of perceived advantages to perceived costs indicates perceived value, which is what consumers anticipate from a good or service (Md. Uzir Hossain, 2021). It represents the discrepancy between the expenses incurred and the real benefits obtained, claims Kotler (2003), referenced in Rico (2019). Four factors—low price, desired products, quality in relation to price, and what customers receive against what they give—can be used to characterize perceived value.

According to Tjiptono (2016), there are four ways to gauge perceived value:

- a. Emotional Value: The state of mind attained when purchasing or going to a nice location.
- b. Social Value: Self-satisfaction with the acquisition and readiness to give.
- c. Quality/Performance Value: Quality that satisfies the needs of the client.
- d. Price/Value for Money: Contentment with the amount spent.

In essence, perceived value is the discrepancy between what consumers contribute and receive. Dhingra et al. (2020) characterize it as a trade-off between perceived quality and price sacrifice, whereas Kotler and Armstrong (2020) define it as the balance of costs and benefits. When perceived value and risk are both high, consumers are more likely to be satisfied (Miao, 2022).

2.8 Customer loyalty

According to Ribbink et al. (2004), customer loyalty is the resolve of customers to continuously buy or subscribe to a product or service in the future, resulting in recurring brand purchases even in the face of external factors or marketing campaigns that would persuade them to switch. Cyr, Head, and Ivanov (2006), e-loyalty is the willingness of a customer to make another online purchase of a good or service. According to Chang and Wang (2011), there are two categories of client loyalty: behavioral and attitudinal. Long-term attitude loyalty shows a psychological commitment on the part of customers to maintain their relationship with the service provider (see ongoing usage). Conversely, behavioral loyalty describes the percentage of purchases made from a certain brand (Chang & Wang, 2011). Word-of-mouth and repurchase intention are two ways to gauge attitude loyalty. The e-loyalty variable is operationalized in this study using the definition provided by Cyr, Head, and Ivanov (2006).

2.9 Customer satisfaction

In marketing, both offline and online, consumer happiness has been thoroughly examined (Al Hawari, 2014; Ganguli & Roy, 2011). According to Szymanski and Hise (2000) in Al Hawari (2014), e-

satisfaction in the online context is the sum of a person's varied experiences with a product or service over time. According to Gounaris, Dimitriadis, and Stathakopoulos (2010), e-satisfaction can also be defined as the experience one has after utilizing a product and comparing its perceived and expected quality. It gauges how satisfied customers are with their online buying experience overall (Gounaris, Dimitriadis & Stathakopoulos, 2010). This study operationalizes the variable of e-satisfaction using the definition provided by Gounaris, Dimitriadis, and Stathakopoulos (2010).

2.5 Research Hypothesis and Framework

A descriptive hypothesis is used in this investigation. A descriptive hypothesis, An assumption about a variable that merely describes or states it rather than comparing or looking for relationships. The factors of e-service quality, perceived value, e-trust, customer happiness, and customer loyalty are the focus of this study's hypothesis. The following are the research hypothesis for each of the study's variables:

H1: E-service quality has a significant effect on e-trust in the Klik Indomaret application.

Customers' e-trust in delivery service providers is positively impacted by the quality of e-services. Customer trust is increased by features like secure transactions, fast response times, and simple navigation. In a similar vein, Qataweh et al. (2024) discovered that transparent information, ease of access, and data protection increase public e-trust in government agencies' e-services.

H2: Perceived value has a significant effect on e-trust in the Klik Indomaret application.

Uzir et al. (2021) state that perceived value positively influences e-trust in home delivery services. When customers feel high value—both benefits and service quality—their trust in the provider increases. Similarly, Yum and Kim (2024) found that perceived value, both utilitarian and hedonic, strengthens e-trust in online entertainment platforms. According to Uzir et al. (2021), e-trust in home delivery services is positively influenced by perceived value. Customers are more likely to trust a provider when they perceive great value in both benefits and service quality. Similarly, Yum and Kim (2024) discovered that e-trust in online entertainment platforms is strengthened by perceived value, both hedonistic and utilitarian.

H3: E-service quality has a significant effect on customer satisfaction in the Klik Indomaret application.

Providing exceptional e-service quality is essential to achieving customer satisfaction in app usage (ElNaim, Sobaih, & Elshaer, 2022). According to earlier research, e-satisfaction is positively impacted by increased digital service quality, indicating that superior service results in higher customer satisfaction. Similar to this, Khan et al. (2019) in Pakistan verified that increasing total customer satisfaction is significantly influenced by the quality of e-services.

H4: Perceived value has a significant effect on customer satisfaction in the Klik Indomaret application.

According to research by Andiyani, Handayani, and Pinem (2020), customer happiness is positively impacted by perceived value in both hedonic and utilitarian dimensions. Based on consumers' experiences and advantages prior to, during, and following transactions, perceived value significantly influences customer happiness. This is consistent with Chen and Tsai (2008), who highlighted that increased perceived value results in increased customer satisfaction.

H5: Perceived value has a significant effect on customer loyalty in the Klik Indomaret application.

Yum and Kim (2024) stress that consumer loyalty is strategically shaped by perceived value. Customers are more devoted to a brand when they continuously believe that it offers good value. The conviction that the brand always meets or surpasses expectations and offers substantial advantages is the source of this devotion. Thus, the secret to preserving client loyalty is to efficiently create and provide perceived value. While Sirdeshmukh et al. (2002) discovered beneficial impacts in retail, Chang et al. (2011) found similar results, demonstrating that perceived value influences loyalty in wood markets and B2B services.

H6: E-trust has a significant effect on customer loyalty in the Klik Indomaret application.

There is a reciprocal relationship between client loyalty and the quality of e-services (Ting et al., 2016). According to earlier research, providing exceptional electronic service through digital platforms increases client satisfaction and trust. Stronger brand connection and recurring business are signs of increased loyalty brought about by these satisfying experiences. According to Sasono et al. (2021), consumer

loyalty is positively impacted by the quality of e-services. According to Khan et al. (2023), online customer satisfaction in the face of uncertainty entirely mediated the positive relationship between e-service quality in Pakistani online banking and customer loyalty during the COVID-19 pandemic.

H7: Customer satisfaction has a significant effect on customer loyalty in the Klik Indomaret application.

Businesses that put the needs of their customers first by offering high-quality goods, first-rate customer support, and consistently satisfying user experiences stand a better chance of gaining the loyalty of their clients. Long-term company success and expansion depend heavily on loyalty (Yum & Kim, 2024). According to earlier research (Khristianto & Suyadi, 2021; Khan et al., 2019), customer loyalty is positively impacted by online customer satisfaction, or e-satisfaction. These results suggest that customers are more likely to stay loyal and stay involved with a firm when they are satisfied with digital services.

H8: E-service quality has a significant effect on customer loyalty in the Klik Indomaret application through e-trust.

E-service quality is crucial for fostering client loyalty, particularly in app-based sectors where e-trust serves as a mediating factor. According to their research, providing excellent customer service not only raises user pleasure but also fortifies platform trust, which in turn improves customer loyalty. In the context of digital government services, Qatawneh et al. (2024) found similar results, showing that higher e-service quality greatly increases e-trust and indirectly affects user loyalty. Furthermore, Ashiq and Hussain's (2024) study on Pakistani online consumer behavior demonstrates that high-quality e-services increase customer trust, which in turn increases customer loyalty.

H9: Perceived value has a significant effect on customer loyalty in the Klik Indomaret application through e-trust

Chang et al. (2011) discovered that in the timber industry, trust functions as a mediating factor between perceived value and customer loyalty. Customers' loyalty to a provider is strengthened when they believe that a product or service offers great value. This emphasizes how important trust is in establishing a connection between loyalty and perceived worth. In a similar vein, demonstrated in the telecom industry that the relationship between perceived value and loyalty is jointly mediated by customer satisfaction and trust. They discovered that consumers' trust in the provider increases and fosters enduring loyalty when they believe the advantages exceed the disadvantages.

H10: E-service quality has a significant effect on customer loyalty in the Klik Indomaret application through customer satisfaction

Qatawneh et al. (2024) claim that, particularly in the context of e-government, customer satisfaction acts as a mediator between e-service quality and customer loyalty. High-quality services increase customer pleasure, which fortifies platform loyalty. This supports previous research on liner shipping businesses, which demonstrates that improved e-service quality boosts customer satisfaction and loyalty. In a similar vein, Chou et al. (2015) discovered that better e-service quality greatly raises customer happiness, which in turn increases customer loyalty, for Pakistani women who purchase online.

H11: Perceived value has a significant effect on customer loyalty in the Klik Indomaret application through customer satisfaction.

The connection between perceived value, customer satisfaction, and customer loyalty has been the subject of numerous studies. The relationship between perceived value and customer loyalty is mediated by customer satisfaction in a business-to-business setting. Similarly, that through higher customer satisfaction, perceived value has an indirect impact on customer loyalty. The relationship between perceived value and loyalty in the telecommunications industry is simultaneously mediated by customer pleasure and trust, underscoring the significance of the entire customer experience in fostering enduring loyalty.

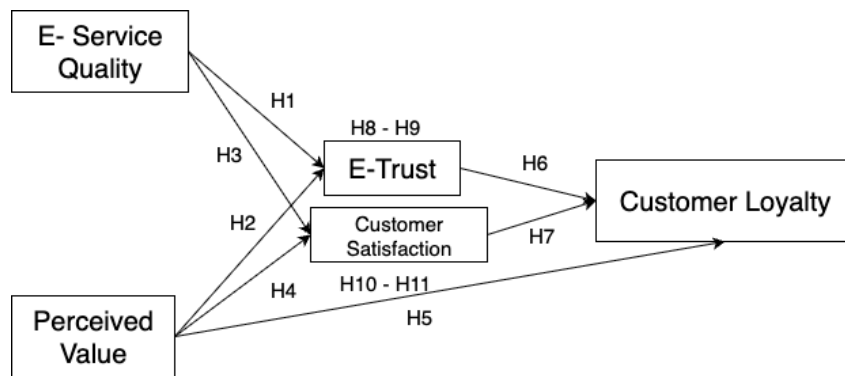


Fig 1. Research Framework

III. METHODS

3.1 Research Object and Analysis

The Klik Indomaret application was used for this investigation. Questionnaires were distributed and completed by users in order to collect data. Because of Google Forms' adaptability, accessibility, and effective data handling within a certain timeline, the questionnaires were made online.

3.2 Variable Operationalization

In this study, operating variables are defined as follows:

Table 2. Operasionalisasi Variable

Variable	Dimension	Questions	Item Code
E-service quality (Alnaim, Sobaih, dan Elshaer, 2022)	Efficiency	The information on the Klik Indomaret app is easy to understand.	SQEF01
		The Klik Indomaret app is easy to use.	SQEF02
		The Klik Indomaret app allows me to complete transactions quickly.	SQEF03
	Privacy	The Klik Indomaret app has adequate security features.	SQPR01
		The Klik Indomaret app does not share my personal information with other sites.	SQPR02
		The Klik Indomaret app protects my personal information from unauthorized access.	SQPR03
		The Klik Indomaret app protects information about my transactions.	SQPR04
	System Availability	The Klik Indomaret app is always available.	SQSA01
		The Klik Indomaret app can be launched immediately.	SQSA02
		The Klik Indomaret app does not experience crashes or errors.	SQSA03
Perceived value (Yum dan Kim, 2024)	Utilitarian Value	I believe the Klik Indomaret app offers practical benefits and functions for shopping.	PVUV01
		The Klik Indomaret app provides services tailored to my preferences in selecting shopping items.	PVUV02
		The Klik Indomaret app is useful to me in shopping.	PVUV03
	Hedonic Value	Using the Klik Indomaret app is enjoyable because it makes it easy to find what I need.	PVHV01
		Time feels like it passes quickly when using the Klik Indomaret app.	PVHV02
		The structure and design of the Klik Indomaret app are very attractive.	PVHV03
	Social Value	I enjoy interacting with others through the Klik Indomaret app, for example, through reviews or recommendations.	PVSV01
		Various information, knowledge, and experiences can be shared through user reviews on the Klik Indomaret app.	PVSV02

		The Klik Indomaret app enhances my social interaction with other users through its platform.	PVSV03
		Through the Klik Indomaret app, I feel a sense of community through interactions with other users who share similar shopping interests.	PVSV04
E-trust (Alnaim, Sobaih, dan Eshaer, 2022; Yum dan Kim, 2024)		I trust the Klik Indomaret app.	ETRU01
		If Klik Indomaret makes claims or promises about its services, I believe those claims are reliable.	ETRU02
		My intention to continue using Klik Indomaret is based on my trust in its services.	ETRU03
		Based on my experience, I find Klik Indomaret very reliable.	ETRU04
		I believe Klik Indomaret will protect my personal data.	ETRU05
Customer satisfaction (Alnaim, Sobaih, dan Eshaer, 2022)		Overall, I am satisfied with the Klik Indomaret app.	CUSA01
		I am happy with my experience using the Klik Indomaret app.	CUSA02
		I am impressed with my experience using the Klik Indomaret app.	CUSA03
		I am very satisfied with the services of the Klik Indomaret app.	CUSA04
Customer loyalty (Alnaim, Sobaih, dan Eshaer, 2022; Yum dan Kim, 2024)		I will recommend the Klik Indomaret app to others.	CULO01
		I say positive things about the Klik Indomaret app.	CULO02
		I intend to continue purchasing from the Klik Indomaret app.	CULO03
		I will keep purchasing from the Klik Indomaret app in the future.	CULO04
		I prefer Klik Indomaret over other platform options.	CULO05

3.3 Model Analysis and Test Techniques

This study is classified as quantitative research because it used Google Forms to distribute questionnaires that were used to collect data. Descriptive analysis is the method of data analysis used. The acquired data will be analyzed in accordance with the analytical requirements in order to meet the study objectives and evaluate the hypotheses. According to Wahyuningtyas et al. (2021:174), the SmartPLS software is used in this study to analyze data. The link between the indicators and their corresponding latent variables is evaluated by the outer model (measurement model). Both content validity and construct validity are further subdivided into convergent validity and discriminant validity—are tested for validity in this study. By adjusting and changing pre-existing measurement items from earlier research, which are assessed by a panel of three to nine specialists, content validity is guaranteed. Average Variance Extracted (AVE) and indicator loading factors are used to determine convergent validity; a minimum acceptable value of 0.5 is used.

When constructs do not show strong relationships with one another, discriminant validity is validated. The Fornell-Larcker criterion and cross-loading values are used in this study to evaluate discriminant validity. The research tools must not only be legitimate but also show that they are reliable. If a research tool produces consistent and steady results after repeated usage, it is deemed reliable. Reliability is evaluated in this study using Cronbach's alpha and composite reliability; a threshold of > 0.6 denotes acceptable reliability. The inner model outlines the causal relationships between latent variables (structural model). Once the measurement model satisfies validity and reliability criteria, structural model testing is conducted, including assessments of R Square, F Square, Q Square, and model fit indices such as SRMR and NFI. Hypothesis testing is essential to determine the relationships between variables in the model. In this study, a one-tailed test is used. Statistical significance is determined by a t-statistic value of at least 1.64 at a 5% significance level ($\alpha = 0.05$). Additionally, the effect size (f^2) is used to assess the strength of the relationships, categorized as 0.02 (small), 0.15 (moderate), and 0.35 (large).

IV. RESULT AND DISCUSSION

The Klik Indomaret application was used for this investigation. Questionnaires were distributed and completed by users to collect data. Because of Google Forms' adaptability, accessibility, and effective data handling within a certain timeline, the questionnaires were made online. The survey was distributed between July 7 and July 10, 2025. If each statement received a single response, the questionnaire was deemed valid. 385 questionnaires were sent out, and all 385 were returned, as shown in the above table. Every questionnaire that was returned was legitimate and served as the study's main source of data.

4.1 Measurement (Outer) Model

The researchers evaluated the measurement (outer) model for each variable—namely social e-service quality, perceived value, customer loyalty, e trust and customer satisfaction—by conducting construct validity tests, which included convergent validity, cross-loading, discriminant validity, as well as reliability testing.

Table 3. Standardized Loading 385 Respondents

Indicator	Standardized Loading	Indicator	Standardized Loading
SQEF01	0.773	PVUV01	0.798
SQEF02	0.743	PVUV02	0.772
SQEF03	0.817	PVUV03	0.820
SQPR01	0.703	ETRU01	0.779
SQPR02	0.758	ETRU02	0.878
SQPR03	0.756	ETRU03	0.872
SQPR04	0.791	ETRU04	0.874
SQSA01	0.752	ETRU05	0.788
SQSA02	0.803	CUSA01	0.832
SQSA03	0.750	CUSA02	0.838
PVHV01	0.830	CUSA03	0.812
PVHV02	0.807	CUSA04	0.867
PVHV03	0.813	CULO01	0.847
PVSV01	0.783	CULO02	0.748
PVSV02	0.810	CULO03	0.735
PVSV03	0.736	CULO04	0.737
PVSV04	0.740	CULO05	0.824

It is evident from Figure 3. that the researcher's standardized loading values for each indicator are greater than 0.5. This shows that the study's convergent validity satisfies the criteria and is accepted as legitimate.

Convergent validity findings derived from Average Variance Extracted (AVE) values are as follows:

Table 4. Average Variance Extracted (AVE) 385 Respondents

Variable	AVE	Critical Value	Model Evaluation
E-Service Quality (X1)	0.585	>0.5	Valid
Perceived Value (X2)	0.626		Valid
E-Trust (Z1)	0.705		Valid
Customer Satisfaction (Z2)	0.701		Valid
Customer Loyalty (Y)	0.608		Valid

The Average Variance Extracted (AVE) values for every variable in this study are greater than the 0.5 cutoff, as shown in Figure 4. This shows that over half of the variance in each construct's indicators can be explained. Thus, based on the AVE values, it can be said that the convergent validity test has been satisfied and is deemed legitimate.

Fig 5. Heterotrait–Monotrait Ratio (HTMT) 385 Respondents

Variable	Customer Loyalty (Y)	Customer Satisfaction (Z2)	E-Trust (Z1)	Perceived Value (X2)	E-Service Quality (X1)
Customer Loyalty (Y)					
Customer Satisfaction (Z2)	0.830				
E-Trust (Z1)	0.838	0.801			
Perceived Value (X2)	0.788	0.817	0.885		
E-Service Quality (X1)	0.773	0.841	0.916	0.870	

Ten HTMT readings are displayed in Figure 4.10, five of which are blue (values < 0.850) and five of which are white (numbers between 0.850 and 0.900). All HTMT levels, however, continue to fall below the cautious cutoff point of 0.900. Thus, according to the HTMT criteria, discriminant validity in this study has been met and is regarded as legitimate.

Table 6. Construct Reliability

Variable	Cronbach's alpha	Critical Value	Composite Reliability	Critical Value	Model Evaluation
E-Service Quality (X1)	0.921	>0.7	0.924	>0.7	Reliable
Perceived Value (X2)	0.934		0.935		Reliable
E-Trust (Z1)	0.894		0.894		Reliable
Customer Satisfaction (Z2)	0.858		0.863		Reliable
Customer Loyalty (Y)	0.838		0.843		Reliable

For every variable utilized in this study, the Cronbach's alpha and composite reliability values are greater than 0.7, as shown in Figure 6. Thus, it can be said that this study's construct reliability is trustworthy.

4.2 Structural (Inner) Model

Fig 7. Path Coefficients 385 Respondents

Variable	E-Service Quality (X1)	Perceived Value (X2)	E-Trust (Z1)	Customer Satisfaction (Z2)	Customer Loyalty (Y)
E-Service Quality (X1)			0.412		0.457
Perceived Value (X2)			0.366	0.287	0.273
E-Trust (Z1)				0.143	
Customer Satisfaction (Z2)				0.159	
Customer Loyalty (Y)					

Seven path coefficient values are shown in Figure 7., and they are all positive (no negative signals). This suggests that there is a positive correlation between Variable Z and Variable Y as well as between Variable X and Variable Z.

Table 8. R-Square 385 Respondents

Variable	R-square
E-Trust (Z1)	0.520
Customer Satisfaction (Z2)	0.462
Customer Loyalty (Y)	0.263

Here are the Q-Square results based on the test conducted with 385 Respondents:

$$Q^2 = \sqrt{1 - \left(1 - R^2\right) \left(1 - R^2\right) - \left(1 - R^2\right)}$$

$$Q^2 = \sqrt{1 - (1 - 0.520)(1 - 0.462) - (1 - 0.737)}$$

$$Q^2 = 1 - (0.480 \times 0.538 \times 0.737)$$

$$Q^2 = 1 - 0.1903$$

$$Q^2 = 0.8097$$

The measured model has relevant prediction power, as indicated by the study's prediction Relevance of 0.8097, which is greater than zero (0).

The F-Square test results for 385 responders are shown below:

Figure 9. F-Square 385 Respondents.

Variable	E-Service Quality (X1)	Perceived Value (X2)	E-Trust (Z1)	Customer Satisfaction (Z2)	Customer Loyalty (Y)
E-Service Quality (X1)			0.172	0.188	
Perceived Value (X2)			0.136	0.67	0.55

E-Trust (Z1)					0.142
Customer Satisfaction (Z2)			0.172	0.188	
Customer Loyalty (Y)					1.120

Based on Figure 9., it can be seen that there are four F-Square values, and none of the variables show a weak influence with values less than 0.33.

4.3 Hypothesis Test Results

An overview of the variables that can be found and examined through hypothesis testing can be obtained by doing descriptive analysis based on the problem formulation. The purpose of this is to ascertain whether the independent variables influence the dependent variables. The eleven assumptions in this study are tested using the following standards:

- Ho is rejected and H_{1-11} are approved if the To value is greater than 1.96.
- Ho is approved and H_{1-11} are denied if the To value is less than 1.96.

Below are the results of the hypothesis testing conducted on 385 Respondents:

Table 10. Hypothesis Testing 385 Respondents

Variable	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Remark
E-Service Quality (X1) on E-Trust (Z1)	0.412	0.415	0.059	7.036	0	Accepted
Perceived Value (X2) on E-Trust (Z1)	0.366	0.364	0.062	5.919	0	Accepted
E-Service Quality (X1) on Customer Satisfaction (Z2)	0.457	0.459	0.075	6.083	0	Accepted
Perceived Value (X2) on Customer Satisfaction (Z2)	0.273	0.272	0.073	3.753	0	Accepted
Perceived Value (X2) on Customer Loyalty (Y)	0.287	0.29	0.073	3.918	0	Accepted
E-Trust (Z1) on Customer Loyalty (Y)	0.143	0.142	0.065	2.189	0.029	Accepted
Customer Satisfaction (Z2) on Customer Loyalty (Y)	0.159	0.158	0.065	2.439	0.015	Accepted
E-Service Quality (X1) on Customer Loyalty (Y) through E-Trust (Z1)	0.41	0.406	0.094	4.89	0	Accepted
Perceived Value (X2) on Customer Loyalty (Y) through E-Trust (Z1)	0.287	0.29	0.073	3.918	0	Accepted
E-Service Quality (X1) on Customer Loyalty (Y) through Customer Satisfaction (Z2)	0.43	0.416	0.084	4.89	0	Accepted
Perceived Value (X2) on Customer Loyalty (Y) through Customer Satisfaction (Z2)	0.287	0.30	0.075	3.92	0	Accepted

Customers' overall assessment of the caliber of services provided via electronic platforms is known as "e-service quality" (Ojasalo, 2010). Customers' assessment of the advantages of a product or service in relation to the price paid is known as perceived value (Md. Uzir Hossain, 2021). According to Mayer et al. (1995), e-trust is the readiness to be exposed to another party on the assumption that they will behave appropriately in the absence of control systems. These factors, which include responsiveness, convenience, security, and dependability, are used to gauge perceived value and e-service quality with the goal of raising customer satisfaction and e-trust, which in turn raise customer loyalty on the Klik Indomaret app. With the greatest score on "no errors in the app" (88.78%) and the lowest on "adequate security features" (84.99%), Respondents gave E-Service Quality (X1) a very good rating (86.91%), highlighting the need for better security measures like encryption and two-factor authentication. Perceived Value (X2) also received a very good score of 87.07%, with the lowest score of 84.57% on social interaction through the platform and the highest score of 88.68% on personalized services, indicating that social aspects might be improved. With reliability ranked highest (85.97%) and data privacy trust rated lowest (84.42%), E-Trust (Z1) had a very good score of 85.35%, indicating potential for security enhancements.

Overall satisfaction (Z2) was 84.25%, with the app experience being the most enjoyable (85.04%) and general satisfaction being slightly lower (83.27%). This indicates that there is room for growth. Customer Loyalty (Y) received an excellent rating of 82.92%, the highest rating for expressing favorable opinions about the app (84.99%), and the lowest rating for recommending it to others (82.49%). These ratings suggest that loyalty might be improved, particularly in referrals. Through these mediators, E-Service Quality has a considerable impact on E-Trust (0.420, $t=6.438$), Customer Satisfaction (0.334, $t=6.196$), and indirectly Customer Loyalty. Likewise, Perceived Value has a direct impact on Customer Loyalty (0.128, $t=2.658$), Customer Satisfaction (0.454, $t=8.212$), and E-Trust (0.416, $t=6.549$). Customer loyalty is impacted by e-trust as a mediator (0.153, $t=3.278$), highlighting the significance of trust in building loyalty. Customer satisfaction is the primary driver of loyalty in digital services, as evidenced by the strongest correlation between it and customer loyalty (0.786, $t=25.072$). In general, perceived value, contentment, and trust all influence customer loyalty from a psychological and functional standpoint. Retaining tech-savvy urban users and enhancing long-term loyalty requires Klik Indomaret to prioritize system stability, quicker checkout, responsive customer service, real-time feedback, and personalized experiences.

V. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusion

The following conclusions are drawn from the research findings and discussion:

- a. E-service quality has a major impact on customer satisfaction and e-trust, demonstrating that elements like speed, dependability, usability, and security are essential for fostering these two emotions.
- b. Perceived Value has a favorable impact on E-Trust; customers are more likely to trust Klik Indomaret when they perceive benefits like convenience and time efficiency.
- c. Customer happiness is positively impacted by e-service quality as well; user-friendly features, quick service, and app dependability all contribute to satisfaction.
- d. Customer happiness is greatly increased by perceived value, while user satisfaction is increased by competitive pricing, a customized shopping experience, and simple navigation.
- e. Because users who perceive significant benefits are more likely to remain loyal, perceived value has a favorable impact on customer loyalty.
- f. Customer loyalty is positively impacted by e-trust, as recommendations and loyalty are fostered by confidence in transaction security and system integrity.
- g. Positive user experiences are essential for loyalty, as evidenced by the largest positive correlation between customer satisfaction and customer loyalty.
- h. Customer loyalty is indirectly impacted by e-service quality through e-trust, which means that providing excellent customer service fosters loyalty by first boosting trust.
- i. Through e-trust, perceived value also has an indirect impact on customer loyalty.
- j. Through customer satisfaction, e-service quality indirectly affects customer loyalty, demonstrating that happy customers are more devoted.
- k. Perceived benefits raise customer satisfaction, which in turn promotes loyalty. This is how perceived value indirectly influences customer loyalty through customer satisfaction.

According to the study's findings, businesses must strategically improve the caliber of their online services, provide value that customers perceive, and continuously foster customer satisfaction and trust in order to increase customer loyalty on digital platforms like Klik Indomaret.

6.2 Recommendations

6.2.1 Academic Aspect

According to this study, perceived value toward customer loyalty and e-service quality are mediated by e-trust and customer satisfaction. These results corroborate those of Hair et al. (2021), who emphasized the usefulness of SEM-PLS in evaluating mediation effects in models of digital consumer behavior. This model can be expanded in future studies to examine how associations alter under various circumstances by adding moderator variables like perceived risk, consumer involvement, or technology phobia.

Recommendations for Future Research:

- a. **Extend the model and variables**
To better understand consumer behavior on digital platforms, future research should incorporate factors like User Experience (UX), Brand Image, Perceived Risk, and Customer Engagement.
- b. **More Detailed Segmentation of Demographics**
Future studies can examine various consumer categories based on factors like region, wealth, or age rather than general users.
- c. **Employ Diverse Approaches**
Emotional and motivational elements can be captured by combining quantitative surveys with qualitative methods (such as focus groups or interviews), which will enhance the analysis.
- d. **Comparison Across Platforms**
To verify the model's generalizability, future research could contrast Klik Indomaret with other platforms such as Alfagift, Tokopedia, or Shopee Mart.
- e. **More extensive and representative samples**
Future findings will be more valid and generalizable if a bigger, randomly chosen sample is used.

6.2.2 Practical Aspect

Recommendations for Practical Aspect:

- a. **Maintain a High Standard of E-Services**
Klik Indomaret should concentrate on improving technical performance—such as quicker access, system stability, simple navigation, and rapid customer service—to improve user experience because E-Service Quality has a direct impact on customer trust and happiness.
- b. **Make E-Trust stronger**
The secret to keeping consumers is trust. Assure clear product information, transparent privacy policies, and transaction security. Features that increase consumers' perception of security and dependability include data encryption, two-factor authentication, and frank reviews.
- c. **Boost Value Perception**
When consumers believe the advantages outweigh the disadvantages, they remain devoted. Value-added services including loyalty plans, exclusive app discounts, tailored promotions, and interaction with other online services should be provided by Klik Indomaret.
- d. **Improve Customer Satisfaction Techniques**
- e. **Actively handle customer feedback because it is the best indicator of loyalty.**
To maintain a positive brand image, incorporate tools for evaluating services, carry out frequent satisfaction surveys, and address complaints right away.
- f. **Create Inclusive and Measurable Loyalty Programs**
Real rewards, like tiered memberships, point systems that can be redeemed for goods or coupons, and exclusive deals for devoted users, can increase long-term retention.
- g. **Make Use of Data Analytics to Customize**
Make use of behavioral data to customize product recommendations, app interfaces, and alerts about promotions. When it comes to online buying, personalization boosts consumer engagement and perceived value.

REFERENCES

- [1] Al Hawari, M. A. (2014). Customer satisfaction and loyalty in e-commerce: A study of e-tailers. *International Journal of Electronic Commerce*, 18(3), 30–52.
- [2] American Marketing Association. (2020). Definition of Marketing. Retrieved from <https://www.ama.org/the-definition-of-marketing>.
- [3] Andiyani, K., Handayani, P. W., & Pinem, A. A. (2020). The influence of perceived value and user satisfaction on flight ticket booking application user loyalty in Indonesia. In Proceedings of the 12th International Conference on Advanced Computer Science and Information Systems (ICACSIS 2020) (pp. 211–216). IEEE. <https://doi.org/10.1109/ICACSIS51025.2020.9263203>

- [4] Arisondha, E., Saputra, G. G., Fadhillah, & Putri, S. I. (2023). Peran personal selling dan penggunaan aplikasi Klik Indomaret terhadap keputusan pembelian. D3 Perbankan Keuangan, Fakultas Ekonomi dan Bisnis, Universitas Sultan Ageng Tirtayasa.
- [5] Ashiq, R. (2023). E-service quality and its impact on customer satisfaction in e-commerce. *International Journal of E-Commerce Studies*, 9(3), 41–55. <https://doi.org/10.1108/IJES.2023.10203>
- [6] Chang, H. H., & Wang, H. W. (2011). The moderating effect of trust on customer loyalty. *International Journal of Electronic Commerce*, 16(2), 97–118. <https://doi.org/10.2753/JEC1086-4415160205>
- [7] Chou, S., Chen, C. W., & Lin, J. Y. (2015). Female online shoppers: Examining the mediating roles of e-satisfaction and e-trust on e-loyalty development. *Internet research*, 25(4), 542-561.
- [8] Cyr, Head & Ivanov (2006). Design aesthetics leading to m-loyalty in mobile commerce. *Information & Management*, 43. 950-963.
- [9] Dhingra, R., Sharma, S., & Kapoor, S. (2020). The impact of e-service quality on customer loyalty in the digital age. *International Journal of E-Commerce Studies*, 10(2), 45–58. <https://doi.org/10.1016/j.ijecs.2020.04.003>
- [10] Fathin, R. F., & Millanyani, H. (2021). Pengaruh Online Customer Review dan Rating terhadap Minat Beli pada Aplikasi Pemesanan Hotel Traveloka (Skripsi S1, Universitas Telkom). *Journal of Economic, Business and Accounting (COSTING)*, 5(1), 709–722.
- [11] Ganguli, S., & Roy, S. K. (2011). Generic technology-based service quality dimensions in banking: Impact on customer satisfaction and loyalty. *International Journal of Bank Marketing*, 29(2), 168–189. <https://doi.org/10.1108/02652321111107648>
- [12] Gounaris, S. P., Dimitriadis, S., & Stathakopoulos, V. (2010). An examination of the effects of service quality and satisfaction on customers' behavioral intentions in e-shopping. *Journal of Services Marketing*, 24(2), 142–156. <https://doi.org/10.1108/08876041011031118>
- [13] Ikramuddin, A., & Mariyudi. (2021). The mediating role of customer satisfaction and brand trust between the relationship of perceived value and brand loyalty. *Asian Journal of Economics, Business and Accounting*, 21(19), 21–33
- [14] Khan, F. N., Arshad, M. U., & Munir, M. M. (2023). Impact of e-service quality on e-loyalty of online banking customers in Pakistan during the Covid-19 pandemic: mediating role of e-satisfaction. *Future Business Journal*, 9(1), 1-12. <https://doi.org/10.1186/s43093-023-00201-8>
- [15] Khristianto, W., & Suyadi, I. (2021). The influence of information, system, and service on customer satisfaction and loyalty in online shopping. *International Journal of Academic Research*, 4(2), 28–32.
- [16] Kintradinata, L. L., & Hidayah, R. T. (2023). Pengaruh Electronic Word of Mouth melalui aplikasi TikTok terhadap minat beli pada produk Skintific (Skripsi, Universitas Telkom). Telkom Open Library .
- [17] Kotler, P. (2003). *Marketing management: Analysis, planning, implementation, and control* (11th ed.). Prentice Hall.
- [18] Kotler, P., & Armstrong, G. (2020). *Principles of marketing* (17th ed.). Pearson Education
- [19] Kotler, P., & Keller, K. L. (2020). *Marketing management* (15th ed.). Pearson Education.
- [20] Laudon, K. C., & Traver, C. G. (2014). *E-commerce: Business, technology, society* (10th ed.). Pearson Education.
- [21] Md. Uzir Hossain, M. (2021). Impact of e-trust on customer satisfaction in the digital marketplace. *International Journal of Business and Technology*, 16(1), 45–60.
- [22] Md. Uzir Hossain, M. (2021). Impact of e-trust on customer satisfaction in the digital marketplace. *International Journal of Business and Technology*, 16(1), 45–60.
- [23] Miao, M., Jalees, T., Zaman, S. I., Khan, S., Hanif, N. ul A., & Javed, M. K. (2022). The influence of e-customer satisfaction, e-trust and perceived value on consumer's repurchase intention in B2C e-commerce segment. *Asia Pacific Journal of Marketing and Logistics*, 34(10), 2184–2206.
- [24] Qatawneh, N., Al-Okaily, M., Alkhasawneh, R., Althonayan, A., & Tarawneh, A. (2024). The mediating role of e-trust and e-satisfaction in the relationship between e-service quality and e-loyalty toward e-government services. *Global Knowledge, Memory and Communication*. <https://doi.org/10.1108/GKMC-07-2023-0263>
- [25] Reibstein, D. J. (2002). What attracts customers to online stores, and what keeps them coming back? *Journal of the Academy of Marketing Science*, 30(4), 347–357. <https://doi.org/10.1177/009207002236911>
- [26] Ribbink, D., Van Riel, A. C. R., Liljander, V., & Streukens, S. (2004). Comfort your online customer: Quality, trust and loyalty on the internet. *Managing Service Quality: An International Journal*, 14(6), 446–466.
- [27] Rico, R. (2019). *The impact of e-commerce on consumer behavior*. Oxford University Press.
- [28] Santos, J. (2003). E-service quality: A model of virtual service quality dimensions. *Managing Service Quality: An International Journal*, 13(3), 233–246. <https://doi.org/10.1108/09604520310477298>

- [29] Sasono, I., Jubaedi, A. D., Novitasari, D., Wiyono, N., Riyanto, R., Oktabrianto, O., Jainuri, J., & Waruwu, H. (2021). The impact of e-service quality and satisfaction on customer loyalty: Empirical evidence from internet banking users in Indonesia. *Journal of Asian Finance, Economics and Business*, 8(4), 465–473. <https://doi.org/10.13106/jafeb.2021.vol8.no4.0465>
- [30] Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer trust, value, and loyalty in relational exchanges. *Journal of Marketing*, 66(1), 15–37. <https://doi.org/10.1509/jmkg.66.1.15.18449>
- [31] Slamet, S., & Wahyuningsih, R. (2021). Pengaruh kualitas layanan terhadap kepuasan dan loyalitas pelanggan: Studi pada platform e-commerce. *Jurnal Ilmu Manajemen*, 15(3), 125–140. <https://doi.org/10.1177/09725412223434>
- [32] Statista. (2024). E-commerce market revenue worldwide. <https://www.statista.com/statistics/e-commerce-market-global-revenue>
- [33] Syzmanki, D. M., & Hise, R. T. (2000). Consumer behavior and marketing strategy (7th ed.). McGraw-Hill.
- [34] Tadelho, T. (2009). The role of trust in customer relationship management. *Journal of Business Research*, 22(4), 423–440. <https://doi.org/10.1016/j.jbusres.2009.01.005>
- [35] Tjiptono, F. (2016). Pemasaran jasa (ed. ke-4). Andi.
- [36] Turban, E., King, D., Lee, J. K., Liang, T. P., & Turban, D. C. (2012). Electronic commerce: A managerial and social networks perspective (7th ed.). Springer.
- [37] We Are Social, & Kepios. (2024). Digital 2024: Global overview report. <https://wearesocial.com/digital-2024>
- [38] Yum, K., & Kim, J. (2024). The Influence of Perceived value, Customer satisfaction, and Trust on Loyalty in Entertainment Platforms. *Applied Sciences*, 14(13), 5763.
- [39] Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of extant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362–375.