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The Influence of Product and Service Quality on Satisfaction, with the Mediation of Perceived Value on Linkaja Users in Padang City

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Abstract

The rapid growth of digital financial technology (fintech) has changed payment behavior worldwide, with e-wallets becoming a popular choice. However, user satisfaction remains a major challenge in this competitive market. This study examines the influence of Product Quality and Service Quality on Customer Satisfaction, with Customer Perceived Value as a mediator among LinkAja e-wallet users in Padang City. The research is motivated by the rising use of fintech services, highlighting the importance of product and service quality in creating value and satisfaction. A quantitative method was employed, collecting data through questionnaires distributed to 280 LinkAja users domiciled in Padang City. Data analysis used Structural Equation Modeling (SEM) with Partial Least Squares (PLS) via SmartPLS 4. Results indicate Product Quality and Service Quality significantly affect Customer Perceived Value and Customer Satisfaction. Additionally, Customer Perceived Value significantly mediates the link between Product Quality, Service Quality, and Customer Satisfaction. These findings support the Expectation Disconfirmation Theory (EDT), which explains that satisfaction arises from comparing expectations with service performance perceptions. This study contributes theoretically to fintech consumer behavior models and offers practical insights for companies to enhance service quality and perceived value.

Keywords : *Product Quality, Service Quality, Customer Satisfaction, Customer Perceived Value, LinkAja, Fintech.*

INTRODUCTION

Amid the rapid digitalization of the economy, electronic wallets (e-wallets) have become essential financial instruments that facilitate various transactions globally. The global e-wallet market has experienced exponential growth, with transaction values projected to reach USD 12 trillion by 2025, driven by increasing smartphone penetration and digital payment adoption worldwide (Abas & Puspawati, 2024). However, this rapid expansion has been accompanied by significant challenges in maintaining user satisfaction and retention (Sutanto & Abadi, 2024). International studies reveal that e-wallet user satisfaction rates vary considerably across markets, with dissatisfaction rates ranging from 25% to 40% in developing economies due to issues related to service reliability, security concerns, and poor customer support (Ajina et al., 2023). In Southeast Asia specifically, retention challenges are particularly acute—research indicates that approximately 60% of e-wallet users in the region have abandoned at least one digital payment

service due to unsatisfactory experiences, highlighting the critical importance of understanding satisfaction drivers in this context (Dhaiguda et al., 2023).

The success of adoption and the sustainability of this technology largely depend on user satisfaction and trust (Abas & Puspawati, 2024). Satisfaction, defined as a post-consumption evaluation in which user expectations are met or exceeded by perceived service performance (Gajewska et al., 2020; Otto et al., 2020), serves as a crucial indicator determining users' intention to continue using a technology. When perceived performance exceeds expectations, positive disconfirmation occurs, resulting in high satisfaction, and vice versa (Wang, 2020). Customer satisfaction in digital payment services is particularly critical as it directly influences user retention, word-of-mouth recommendations, and long-term platform sustainability. Studies have shown that satisfied e-wallet users demonstrate 3.5 times higher retention rates and generate significantly more positive word-of-mouth compared to dissatisfied users, making satisfaction a key performance metric for fintech companies globally (Mutambik, 2023).

In this context, LinkAja, as one of Indonesia's leading e-wallets with more than 84 million registered users (Rahardyan, 2022), plays a vital role in promoting national financial inclusion (Wartakini, 2024). Despite its large user base and user-friendly interface, reports from various sources—including Google Play Store reviews and consumer media—indicate significant challenges related to user satisfaction with LinkAja (Indonesiapublisher, 2025; Kontan.co.id, 2024; Mediakonsumen.com, 2024; Yuwono, 2023). Common complaints revolve around issues such as application instability, transaction failures, slow and unresponsive customer service, and account security concerns (Playstore, 2025). This dissatisfaction phenomenon can be analyzed through several theoretical frameworks. The Expectation Confirmation Model (ECM) explains that dissatisfaction arises when a service fails to meet users' initial expectations (Fu et al., 2018). Meanwhile, the Service Quality Model highlights weaknesses in dimensions such as reliability and responsiveness as key sources of customer dissatisfaction in electronic services (Hussain, 2023).

Product quality and service quality are essential antecedents shaping customer perceived value, which in turn influences satisfaction (Samudro, 2020; Uzir et al., 2020). Product quality refers to a product's ability to meet customer needs (Abigail et al., 2024), while electronic service quality represents users' comprehensive assessment of the excellence of virtual facilities offered (Al-Dweeri et al., 2019; Raza et al., 2020; Sharma, 2024).

The existing literature has established several key relationships among these constructs. First, Suhartanto et al. (2019) conducted a study on online food delivery services and found that e-service quality significantly influences customer loyalty through the mediating role of perceived value and satisfaction. Their research demonstrated that service quality dimensions such as website design, reliability, and responsiveness collectively explained 68% of the variance in customer satisfaction. Second, Bashir et al. (2020) examined e-banking services in Bangladesh and provided empirical evidence that customer perceived value significantly mediates the relationship between service quality and customer satisfaction, with the mediation effect accounting for approximately 40% of the total effect. This finding suggests that the impact of service quality on satisfaction is partially indirect, operating through customers' value perceptions. Third, Uzir et al. (2020)

investigated the role of perceived value in moderating and mediating the relationship between quality and satisfaction in the context of social media usage. Their study revealed that perceived value not only mediates but also moderates the quality-satisfaction relationship, with the mediating effect being stronger when customers perceive higher value propositions. Fourth, Syah and Olivia (2022) explored e-service quality in the Indonesian fintech context and found that while service quality dimensions directly influence satisfaction, the inclusion of perceived value as a mediator strengthened the explanatory power of their model, increasing R^2 from 0.52 to 0.71. These studies collectively demonstrate the importance of considering perceived value as a mediating mechanism in quality-satisfaction relationships.

Although the relationships among quality, value, and satisfaction have been widely studied, there remains a research gap in the comprehensive understanding of how these variables interact simultaneously. Specifically, studies examining the mediating role of customer perceived value in models integrating product quality and service quality toward e-wallet user satisfaction are still limited (Alwarshdeh, 2020; Bashir et al., 2020; Suhartanto et al., 2019; Syah & Olivia, 2022). Incorporating this mediating variable aims to fill gaps in prior research and provide a more holistic understanding (Dhingra, 2023; Suttikun & Meeprom, 2021).

The urgency of this research is driven by a highly competitive Indonesian e-wallet market where LinkAja has experienced a notable decline in position, coupled with the national push for digital financial inclusion, which makes user retention critical. There is a direct need for LinkAja's management to identify whether product or service quality most strongly impacts satisfaction, and how perceived value mediates this, to guide strategic improvements. Theoretically, it also addresses a gap in understanding the complex, sometimes paradoxical, role of perceived value in digital financial services where promotions can create inflated expectations.

This study offers novel contributions by simultaneously examining product and service quality in one model to compare their influence, unlike prior research which often isolates them. It comprehensively tests perceived value mediation using dimensions like value for money, which are crucial in Indonesia's price-sensitive market but understudied. Furthermore, it focuses on a secondary urban area, Padang City, and specifically targets users who have experienced service problems, providing a realistic perspective on satisfaction under adverse conditions rather than relying on general user populations.

The research aims to analyze the direct effects of product and service quality on perceived value and satisfaction, as well as the direct effect of perceived value on satisfaction. It further seeks to test the indirect, mediating role of perceived value in the relationships between both quality dimensions and customer satisfaction among LinkAja users in Padang City. The benefits of this work are threefold: theoretically, it refines consumer behavior models and extends Expectation Disconfirmation Theory by exploring boundary conditions for perceived value. Practically, it offers actionable insights for e-wallet providers on prioritizing investments in product versus service enhancements. Methodologically, it provides a validated measurement model for future Indonesian market studies. The implications guide companies in strategy and communication,

assist policymakers in consumer protection standards, and open academic avenues for researching paradoxical value effects in digital services.

Relationship Between Variables

The Influence of Product Quality on Customer Satisfaction

Product quality refers to a product's ability to meet customers' needs and desires, both expressed and implied (Abigail et al., 2024). In the context of e-wallets, product quality is manifested in aspects such as application stability, transaction feature reliability, speed, and system security. A high-quality product will meet or even exceed user expectations, leading to increased satisfaction (Setyadi et al., 2024). Based on the Expectation Disconfirmation Theory (EDT), a stable and reliable application (high performance) produces positive confirmation of user expectations, thereby directly enhancing customer satisfaction.

H1: Product Quality has a positive effect on Customer Satisfaction.

The Influence of Service Quality on Customer Satisfaction

Service Quality is a comprehensive evaluation by users of the overall excellence or superiority of a service (Sharma, 2024). In the digital environment, this is referred to as e-service quality, which encompasses the entire customer journey from information search and transaction processes to post-purchase services (Hussain, 2023; Syah & Olivia, 2022). According to the model proposed by Zeithaml et al. (1988), dimensions such as reliability, responsiveness, and assurance significantly influence customer perceptions. Responsive customer service and effective problem-solving (high service performance) fulfill user expectations, which in turn enhance customer satisfaction (Ighomereho et al., 2022; Liu et al., 2021).

H2: Service Quality has a positive effect on Customer Satisfaction.

The Mediating Role of Customer Perceived Value

Customer Perceived Value serves as an essential bridge between perceived quality and overall satisfaction. Superior product and service quality enhance the benefits perceived by customers—such as efficiency, convenience, and security—thereby improving their overall perception of value (Uzir et al., 2020). When customers feel that the benefits they receive are equal to or exceed the sacrifices made (e.g., transaction costs or time spent), their perceived value becomes high (Samudro, 2020).

Furthermore, this perceived value directly triggers satisfaction. Customers who believe they are receiving the best value from a service tend to be more satisfied. Several studies have confirmed that customer perceived value plays a significant mediating role in the relationship between service quality and customer satisfaction (Bashir et al., 2020; Suhartanto et al., 2019). This implies that product and service quality not only have a direct impact on satisfaction but also an indirect effect through the formation of positive value perceptions.

H3: Product Quality has a positive effect on Customer Perceived Value.

H4: Service Quality has a positive effect on Customer Perceived Value.

H5: Customer Perceived Value has a positive effect on Customer Satisfaction.
H6: Customer Perceived Value mediates the effect of Product Quality on Customer Satisfaction.
H7: Customer Perceived Value mediates the effect of Service Quality on Customer Satisfaction.

METHOD

This study employed a quantitative approach with a causal research design to examine the cause-and-effect relationships among variables. According to Hair et al. (2019), causal research aims to demonstrate reciprocal interactions between research variables. Primary data were collected through surveys using questionnaires distributed both online and offline to respondents. The research instrument was designed as a set of closed-ended statements using a 5-point Likert Scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), to measure respondents' perceptions (Sekaran, 2016). In addition, secondary data from articles, journals, and books were utilized to support the analysis and strengthen the research arguments (Sunarsi, 2021).

The population of this study consists of all LinkAja e-wallet users in Padang City (Abdullah, 2022; Nuryadi, 2017). The sampling technique applied was non-probability sampling with the purposive sampling method (Sahir, 2022). The criteria established for respondents included active LinkAja users as of 2025, residing in Padang City, being above 17 years of age, and having experienced issues in using LinkAja services. The determination of the sample size was based on the recommendation of F. Hair Jr et al. (2014), which suggests that the number of samples should be five to ten times the number of indicators. With 28 indicators used in this study, the target sample size was set at 280 respondents.

The variables in this study were operationalized as follows. Customer Satisfaction (Y), as the dependent variable, was measured using three indicators adapted from Ajina et al. (2023), namely expectation fulfillment, payment satisfaction, and ease of use. Product Quality (X1), as the independent variable, was measured using indicators from Phonthanukitithaworn et al. (2021), which include security, special offers, convenience, and flexibility. Service Quality (X2) was measured using indicators from Ajina et al. (2023), encompassing professional service, customized service, fast connectivity, and payment options. Meanwhile, Customer Perceived Value (Z), as the mediating variable, was measured using indicators from Dhaigude et al. (2023), including value for money, fair payment, price balance, and reasonable cost.

Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with the SmartPLS 4.0 software. This approach was chosen because of its capability to analyze complex predictive models without requiring strict data distribution assumptions (F. Hair Jr et al., 2014). The analysis process was carried out in two main stages as recommended by Hair (2019). The first stage involved the evaluation of the measurement model (outer model) to ensure the validity and reliability of the research instruments. Convergent validity was assessed through the Average Variance Extracted (AVE) value with a minimum threshold of 0.50, while discriminant validity was tested to ensure that each construct was distinct from the others. Construct reliability was evaluated using composite reliability, with acceptable values ranging between 0.70 and 0.95. The second stage involved the evaluation of the structural model (inner

model) to test the research hypotheses. This stage assessed the R-Square (R^2) values of the dependent variables, the path coefficients to determine the direction and strength of relationships, and the statistical significance based on the t-statistic values obtained through the bootstrapping procedure. Hypotheses were accepted if the t-statistic value exceeded 1.96 at a 5% significance level (F. Hair Jr et al., 2014).

RESULT AND DISCUSSION

Responden Demography

The characteristics analyzed include gender, age, educational background, monthly income, type of occupation, and duration of using the LinkAja e-wallet application. The following presents the classification of respondents based on their characteristics/profile:

Table 1. Responden characteristic, n = 280

Identities	Frequancy	Percentage
A. Gender :		
1. Man	114	40,7%
2. Woman	166	59,3%
B. Age :		
1. **18–25 years old**	72	25,7%
2. **26–35 years old**	67	23,9%
3. **36–45 years old**	73	26,1%
4. **>45 years old**	68	24,3%
C. Last Education :		
1. **SMA**	78	27,9%
2. **D3**	62	22,1%
3. **S1**	61	21,8%
4. **S2**	69	24,6%
5. **S3**	10	3,6%
D. Income/Allowance :		
1. **< IDR1.000.000**	57	20,4%
2. **IDR 1.000.000–2.000.000**	64	22,9%
3. **IDR 2.000.001–3.000.000**	49	17,5%
4. **IDR 3.000.001–4.000.000**	53	18,9%
5. **> IDR 4.000.000**	57	20,4%
E. Type of Job :		
1. **Student**	46	16,4%
2. **Civil Servant**	84	30,0%
3. **Private Employees**	70	25,0%
4. **Self employed**	80	28,6%
F. Long Use :		
1. < 6 months	63	22,5%
2. 6–12 months	86	30,7%
3. 1–2 years	57	20,4%
4. > 2 years	74	26,4%

Based on the table above, this study involved a total of 280 respondents who met the predetermined criteria. The demographic profile of the sample is described as follows. In terms of gender, the sample was dominated by female respondents (59.3%), while males accounted for 40.7% of the total. The age distribution of respondents was relatively balanced across all categories, with 25.7% aged 18–25 years, 23.9% aged 26–35 years, 26.1% aged 36–45 years, and 24.3% aged over 45 years.

The respondents' educational background showed considerable diversity. The largest group consisted of high school graduates (27.9%), followed by those with a master's degree (24.6%), a diploma (22.1%), and a bachelor's degree (21.8%). A small proportion of respondents held a doctoral degree (3.6%). Monthly income levels also varied, with the largest segment (22.9%) earning between IDR 1,000,000 and IDR 2,000,000.

Regarding occupation, the majority of respondents were civil servants (30.0%), entrepreneurs (28.6%), and private employees (25.0%), while students made up 16.4% of the total sample. Finally, the duration of LinkAja usage reflected varying levels of experience among respondents. The largest group (30.7%) had used the service for 6–12 months, followed by users with more than two years of experience (26.4%). Meanwhile, newer users (less than six months) and those with 1–2 years of experience accounted for 22.5% and 20.4% of the sample, respectively.

Confirmatory Factor Analysis (CFA)

Product Quality

The results of the CFA test for the Product Quality variable are as follows :

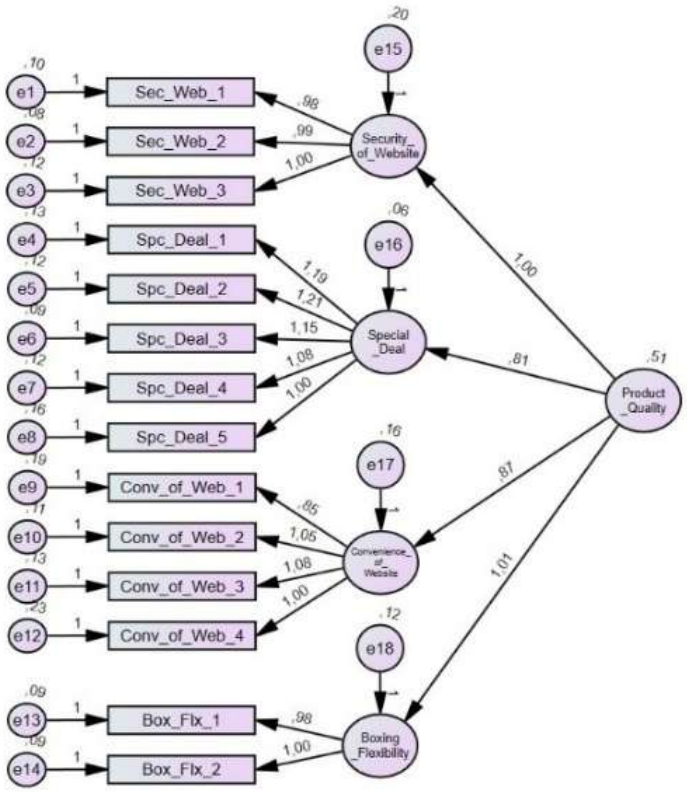

Figure 2. Confirmatory Factor Analysis (CFA) Product Quality

To facilitate interpretation, the estimated loading factor results in the standardized regression weight CFA model are presented again in a tabular form, as shown in the table below :

Table 3. CFA Product Quality

Dimension		*Indicator*	*Loading Factor*	*Decision*
Security of Website	⟶	*Sec_Web_1*	0,932	Valid
		Sec_Web_2	0,947	Valid
		Sec_Web_3	0,925	Valid
Special Deal	⟶	*Spc_Deal_1*	0,898	Valid
		Spc_Deal_2	0,907	Valid
		Spc_Deal_3	0,922	Valid
		Spc_Deal_4	0,892	Valid
		Spc_Deal_5	0,847	Valid
Convenience of Website	⟶	*Conv_of_Web_1*	0,823	Valid
		Conv_of_Web_2	0,918	Valid
		Conv_of_Web_3	0,908	Valid
		Conv_of_Web_4	0,839	Valid
Boxing Flexibility	⟶	*Box_Flx_1*	0,931	Valid
		Box_Flx_2	0,936	Valid

Based on the results of the Confirmatory Factor Analysis (CFA) for the Product Quality variable, it was found that all indicators used demonstrated excellent convergent validity. The standardized loading factor values for each indicator were well above the recommended threshold of 0.50, ranging from 0.823 to 0.947. Therefore, it can be concluded that the Product Quality construct possesses strong construct validity, and all indicators used are valid and appropriate to be retained for subsequent model analysis.

Outer Model

Convergent Validity

The parameters used in this test include outer loading, composite reliability (CR), Cronbach's alpha (CA), and average variance extracted (AVE). The results of the measurement model testing are presented in the table below :

Table 4. Measurement Model Assasment Result

Construct and Indicator	Outer Loading	CR	CA	AVE
Customer Satisfaction		**0,974**	**0,960**	**0,926**
Fullfilment of expectation	0,968			
Payment satisfaction	0,962			
Confort of use	0,957			
Product Quality		**0,940**	**0,915**	**0,798**
Security of Website	0,863			
Special Deal	0,909			
Convenience of Website	0,885			
Booking Flexibility	0,914			
Service Quality		**0,946**	**0,925**	**0,816**
Professional service	0,891			
Customized service	0,916			
Fast connction	0,908			
Payment option	0,897			
Customer Perceived Value		**0,872**	**0,805**	**0,631**
Value for money	0,739			
Matching payout	0,851			
Price Balance	0,820			
Fair cost	0,762			

The results of the measurement model testing indicate that the research instrument demonstrates strong validity and reliability, consistent with the criteria recommended by Hair (2019). All indicators show outer loading values above the 0.70 threshold, confirming indicator validity. Internal reliability is also excellent, with Composite Reliability (CR) and Cronbach's Alpha (CA) values for all constructs exceeding 0.70. Convergent validity is fulfilled, as each construct has an Average Variance Extracted (AVE) value greater than 0.50. Furthermore, the model exhibits moderate to strong predictive power. Therefore, the measurement model is considered valid, reliable, and suitable for subsequent structural model testing.

Discriminant Validity

The following are presented the results of the discriminant Validity Test based on *Rasio Heterotrait-Monotrait* (HTMT) (F. Hair Jr et al., 2014). as follows :

Table 5. Results Analysis Discriminant Validity Based on *Heterotrait Monotrait Ratio* (HTMT)

Variable	*Customer Perceived Value*	*Customer Satisfaction*	*Product Quality*
Customer Satisfaction	0,561		
Product Quality	0,805	0,843	
Service Quality	0,849	0,662	0,742

Based on Table 5 above, the validity test using the Heterotrait-Monotrait Ratio (HTMT) approach shows that all HTMT values are below the maximum threshold of 0.90. According to Hair (2019), an HTMT value lower than 0.90 indicates that the latent variables are clearly distinct and free from discriminant validity issues. This means that constructs such as Product Quality, Service Quality, Customer Perceived Value and Customer Satisfaction are unique and do not overlap in measurement. These results confirm the discriminant validity of the model, ensuring that each variable measures a different concept and strengthening the credibility of the research findings.

Inner Model

According to Althinayyan & Alojail (2024), the inner model in PLS-SEM functions to test the causal relationship between latent constructs through an R^2 value that shows strong predictive ability with a result of 0.705 for user satisfaction and 0.62 for continuous use intention. The results of the test of the Inner model with R-square are as follows:

Tabel 6. R-Square Analysis

	R-square	*R-square adjusted*
***Customer Perceived Value* (Z)**	0,619	0,616
***Customer Satisfaction* (Y)**	0,668	0,660

The results of the R^2 test in table 6 show that the *Customer Satisfaction variable* has a value of 0.668 which is classified as moderate to strong (Hair et al., 2019), so that product quality, service quality, and perceived value, to explain 66.8% of the variation in customer satisfaction, while the remaining 33.2% is influenced by other factors outside the model. The *Customer Perceived Value* obtained an R^2 value of 0.619 which is included in the moderate category, indicating that the quality of products and services explains 61.9% of the variation in customer value perception, while the other 38.1% is influenced by external factors such as price, promotion, and personal experience.

Research Hypothesis

According to F. Hair Jr et al., (2014) Hypothesis testing in the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach was performed to evaluate the relationships between latent variables that have been formulated in the theoretical model. This process includes testing the direct, indirect (mediation), and interaction (moderation) of the influence between constructs. The hypothesis is declared significant if the relationship between variables is indicated by a t-statistical value that exceeds a certain threshold, i.e. more than 1.96 at a significance level of 5% (p-value < 0.05). This test is usually carried out through a bootstrapping procedure, which is a resampling technique that produces more stable and accurate statistical estimates in assessing the significance of paths between constructions. The results of hypothesis testing in this study are as follows :

Table 6. Hypothesis Testing Results

Hypothesis	*Path*	*Coeff.*	*t-statistics*	*p-values*	*Decision*
H1	*Product Quality -> Customer Perceived Value*	0,360	4,308	0,000	Accepted
H2	*Product Quality -> Customer Satisfaction*	0,770	13,920	0,000	Accepted
H3	*Service Quality -> Customer Perceived Value*	0,495	5,804	0,000	Accepted
H4	*Service Quality* -> Customer *Satisfaction*	0,205	2,801	0,005	Accepted
H5	*Customer Perceived Value -> Customer Satisfaction*	-0,240	3,625	0,000	Accepted
H6	*Product Quality -> Customer Perceived Value -> Customer Satisfaction*	-0,086	2,621	0,009	Accepted
H7	*Service Quality -> Customer Perceived Value -> Customer Satisfaction*	-0,119	2,965	0,003	Accepted

The results of the hypothesis testing indicate that seven proposed hypotheses were accepted, confirming most of the relationships suggested in the research model. Specifically, it was found that Product Quality and Service Quality have positive and significant effects on Customer Satisfaction, both directly and indirectly. Strong direct effects were observed in the paths from Product Quality to Customer Satisfaction ($\beta = 0.770$; $t = 13.920$) and from Service Quality to Customer Satisfaction ($\beta = 0.205$; $t = 2.801$). Furthermore, the mediating role of Customer Perceived Value was also found to be significant. Product Quality and Service Quality were proven to be important antecedents of Customer Perceived Value, which in turn significantly influences Customer Satisfaction. These findings emphasize that the functional quality of the application and the services provided are key drivers of user satisfaction, and that a positive perceived value serves as a crucial mechanism that strengthens this relationship.

Discussion

The Effect of Product Quality on Customer Perceived Value

The findings confirm that product quality has a significant positive effect on perceived value among users. In the context of the LinkAja e-wallet in Padang, the product quality variable includes transaction speed, system reliability, data security, and user interface simplicity. The improvement of these technical aspects enhances the perception of benefits relative to the costs or risks involved (Oliver, 1997; Zeithaml, 1988). This finding is consistent with previous studies showing that the stability and technical performance of e-wallet applications strengthen perceived value (Ali et al., 2023; Wahyuni et al., 2023) and reduce perceived risk (Uzir et al., 2020). In other words, improved product quality directly enhances perceived value (Blut et al., 2024), increasing both functional and emotional benefits for consumers (Rita et al., 2019a). Therefore, every innovation or new feature should emphasize technical reliability (Hu et al., 2022; Oliver, 1997). Practically, LinkAja must maintain product quality consistency—such as application speed and transaction security—because reliability forms the foundation of user value perception (Uzir et al., 2020; Zeithaml et al., 1988).

The Effect of Product Quality on Customer Satisfaction

This study finds that product quality is a key determinant of user satisfaction with LinkAja. An application with a stable system, high transaction speed, and strong security directly enhances satisfaction, surpassing the effects of promotions or incentives. This result aligns with the Expectation–Confirmation Theory (Oliver, 1997) and satisfaction theory (Kotler, 2016), which posit that satisfaction occurs when product performance meets or exceeds consumer expectations. This consistency is supported by previous studies, which show that digital product reliability plays a major role in satisfaction by reducing perceived risk (Ali et al., 2023; Uzir et al., 2020), and that post-COVID consumers demand speed and security as prerequisites for satisfaction (Wahyuni et al., 2023). Practically, product quality improvement should remain a priority (Parasuraman et al., 1988), as a strong product consistently fulfills customer needs and expectations (Oliver, 1997). Moreover, perceived product quality is directly linked to consumer satisfaction (Blut et al., 2024), particularly when the application offers superior speed, security, and reliability. Therefore, LinkAja must ensure product quality standards are maintained to keep user satisfaction high and reduce the probability of service failures (Hu et al., 2022).

The Effect of Service Quality on Customer Perceived Value

The study also reveals that service quality contributes positively to users' perceived value. Fast, responsive, and informative service—from information clarity to problem resolution—adds value beyond product attributes alone. In other words, perceived value is determined not only by technical aspects but also by how the company serves its customers (Ali et al., 2023; Uzir et al., 2020). Field findings support this view: e-wallet consumers increasingly evaluate applications based on service capability, as service quality reduces uncertainty and enhances perceived benefits (Wahyuni et al., 2023). Theoretically, the SERVQUAL model (Parasuraman et al., 1988) identifies

five service dimensions (tangibles, reliability, responsiveness, assurance, empathy), which, when managed properly, enhance perceived benefits. Zeithaml et al. (1988) further argue that good service reduces sacrifices (e.g., waiting time and risk), thereby increasing perceived value. This finding is consistent with meta-analyses confirming the significant contribution of service dimensions to value in digital contexts (Blut et al., 2024). The implication is that LinkAja should continue to strengthen service aspects—such as response speed and digital interaction security—to build sustainable perceived value (Hu et al., 2022; Rita et al., 2019a).

The Effect of Service Quality on Customer Satisfaction

The findings show that service quality positively affects LinkAja users' satisfaction, although its effect is weaker compared to product quality. Users are more satisfied when services are responsive, resolve complaints quickly, and provide clear information. This result is consistent with international studies showing that service dimensions (reliability, responsiveness, assurance) significantly predict customer satisfaction, although in utilitarian services such as finance, technical aspects often dominate (Rita et al., 2019; Vatolkina et al., 2020). Studies on mobile wallets also found that service responsiveness and reliability affect satisfaction, though the effect depends on system performance (Ajina et al., 2023). Theoretically, the SERVQUAL model (Parasuraman et al., 1988) and satisfaction frameworks (Kotler, 2016) place service quality as an enhancer of customer experience, where fast and reliable service improves satisfaction (Zeithaml, 1988). Practically, LinkAja should view service improvement as a complementary strategy: while better service quality (e.g., faster customer service response, accurate claim resolution) increases satisfaction, maintaining strong product quality must remain the main focus to meet users' core needs (Blut et al., 2024; Hu et al., 2022).

The Effect of Customer Perceived Value on Customer Satisfaction

The study reveals that perceived value significantly affects satisfaction but in a negative direction. This means that an increase in perceived value (e.g., through promotions, cashback, or lower prices) does not automatically increase satisfaction and may even reduce it in some cases. This occurs when high expectations built by perceived value are not met by actual user experiences. This phenomenon aligns with the concept of disconfirmation, where consumers feel disappointed when the expected benefits exceed those received. The meta-analysis by Blut et al. (2024) shows that the "cost" and "effort" dimensions of perceived value can negatively affect satisfaction, while Mutambik (2023) highlights that fintech promotions emphasizing convenience may lower satisfaction when service performance is poor. These findings support Expectation–Confirmation Theory (Oliver, 1997) and Zeithaml's (1988) concept of value, which suggest that satisfaction increases when benefits exceed costs—but decreases when value expectations are unmet (e.g., due to technical issues). For example, when promotional value is high but the system fails, users experience disappointment (Fehrenbach & Herrando, 2021). The implication is that LinkAja should balance value creation with service and product quality promotions promising

great benefits must be supported by seamless transactional experiences so that perceived value positively impacts satisfaction (Hu et al., 2022).

Customer Perceived Value as a Mediator Between Product Quality and Customer Satisfaction

This study finds that Customer Perceived Value mediates the relationship between product quality and customer satisfaction, although the mediation effect is negative. This means that high product quality directly increases satisfaction, but when its effect is transmitted through perceived value, the contribution diminishes. Theoretically, this can be explained through mediation theory: according to Baron and Kenny (1986), MacKinnon (2008), and Hayes (2013), mediators can alter the direction and strength of total effects. In the consumer context, improved perceived value resulting from superior products may raise expectations (Oliver, 1997); if those expectations are not fully met (e.g., features not performing as promised), disconfirmation occurs, reducing satisfaction (Zeithaml, 1988). Empirical studies also report similar complex mediation effects Customer Perceived Value sometimes does not straightforwardly enhance satisfaction when promotional elements dominate its dimensions (Rita et al., 2019; Uzir et al., 2020; Vatolkina et al., 2020). The implication is that Customer Perceived Value remains an important mediator between product quality and satisfaction: product quality improvements indirectly enhance satisfaction through perceived value (Zeithaml, 1988), especially when that value reflects functional and emotional product benefits (Oliver, 1997). Therefore, LinkAja should ensure that product quality improvements are accompanied by tangible value such as transparent fees and ease of transactions—to maintain a positive impact on consumer satisfaction (Blut et al., 2024; Hu et al., 2022).

Customer Perceived Value as a Mediator Between Service Quality and Customer Satisfaction

The results also show that Customer Perceived Value mediates the relationship between service quality and satisfaction with a negative effect. This means that while higher service quality enhances perceived value, the increased expectations may lead to dissatisfaction if the actual experience falls short. This aligns with the observation that when fast and friendly services (e.g., premium packages or promises of speed) heighten perceived value, failures in other areas (e.g., technical stability) may reduce satisfaction through this mediation pathway. Theoretically, this pattern can be explained by mediation analyses by Baron and Kenny (1986), Hayes (2013), and MacKinnon (2008), which reveal that mediation can weaken or even reverse the original effect. The SERVQUAL framework (Parasuraman et al., 1988) identifies service dimensions such as reliability and responsiveness as antecedents of perceived value, while expectation theory (Oliver, 1997; Zeithaml, 1988) explains how disconfirmation of value expectations influences satisfaction. Empirically, similar negative mediation effects have been reported in e-service studies, where Customer Perceived Value sometimes acts as a complex mediator that lowers satisfaction when promotional dimensions dominate (Rita et al., 2019b; Uzir et al., 2020). The practical implication is that LinkAja must ensure that added value through superior service is matched by consistent

user experiences service quality should be managed carefully so that the perceived added value genuinely enhances user satisfaction (Oliver, 1997; Parasuraman et al., 1988).

CONCLUSION

This study examines a comprehensive model to explain user satisfaction with the LinkAja e-wallet by integrating quality and value dimensions. The central theme of the findings is that user satisfaction in utilitarian digital financial services is primarily determined by core functional experiences. Product Quality emerged as the strongest predictor of Customer Satisfaction, followed by Service Quality. The most notable finding lies in the complex role of Customer Perceived Value; although enhanced by product and service quality, this variable exerted a *negative* influence on final satisfaction and in its mediating role. This suggests a disconfirmation dynamic, where high perceived value—likely driven by promotional activities—creates inflated expectations that fail to align with actual user experiences, ultimately leading to disappointment. Theoretically, this study contributes by highlighting the boundary conditions of Expectation Disconfirmation Theory, demonstrating that perceived value can act as a source of unmet expectations and consequently reduce satisfaction in the context of digital services. Practically, the implications are clear for e-wallet providers: priority should be given to improving product stability, speed, and security as the primary drivers of satisfaction. Marketing strategies centered on value creation must be managed carefully to avoid generating expectations beyond the platform's technical capabilities. The limitations of this study include its cross-sectional design and geographic scope restricted to a single city, which opens avenues for future research. Longitudinal studies are recommended to track the evolution of satisfaction over time, while qualitative approaches could provide deeper insights into the negative mediation phenomenon identified**.**

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