**THE INFLUENCE OF E-SERVQUAL AND E-SATISFACTION ON E-LOYALTY OF BANK LAMPUNG MOBILE BANKING USERS**

**ABSTRACT**

*This study aims to analyze the influence of E-SERVQUAL dimensions, which include Site Organization, Reliability, Responsiveness, User Friendliness, Personal Need, and Efficiency, on E-Satisfaction, as well as the influence of E-Satisfaction on E-Loyalty among users of Bank Lampung's mobile banking services. This research employs a quantitative approach, with a population consisting of Indonesian citizens who are active users of Bank Lampung's mobile banking. A total sample of 300 respondents was selected based on predefined criteria. Data were collected through a questionnaire and analyzed using SmartPLS software. The results indicate that all dimensions of E-SERVQUAL have a positive and significant effect on E-Satisfaction. Furthermore, E-Satisfaction is proven to have a positive and significant effect on E-Loyalty. These findings suggest that high-quality electronic service directly enhances user satisfaction, which ultimately impacts their loyalty to Bank Lampung’s mobile banking services.*

**Keywords: Bank Lampung, E-SERVQUAL, E-Satisfaction, E-Loyalty, Mobile Banking**

1. **INTRODUCTION**

The internet has become an indispensable source of information in modern society and is now a part of everyday life for a large portion of the world’s population. It is also an ideal medium for conducting banking transactions due to its cost-saving potential and its role in improving service delivery to customers, which helps build customer loyalty. In 2024, the number of internet users in Indonesia reached 221.5 million out of a total population of 278.6 million in 2023 (APJII, 2024). The results of the internet penetration survey in Indonesia showed a penetration rate of 79.5%, an increase of 1.4% compared to the previous period. This reflects a consistent upward trend in Indonesia’s internet penetration over the past five years (APJII, 2024). All the information people need can now be accessed quickly and easily via the internet (Al-Khayyal et al., 2020).

According to APJII data in 2024, the internet penetration rate in provinces across Sumatra shows that Lampung Province has a penetration rate of 77.75%. This is slightly higher than the average for Sumatra Island, which is 77.34%, but still below the national average of 79.5%. The higher the internet penetration in a region, the greater the likelihood that people will adopt digital services, including mobile banking (Susanto et al., 2021).

People in Lampung can conduct banking transactions such as fund transfers, bill payments, and even investments directly from their mobile devices without needing to visit the bank. Advances in technology, information, and communication have largely eliminated the barriers of time and distance (Asmoro et al., 2020). The demand and expectations of customers for banking services continue to increase, with a desire to access services anytime and anywhere, without the constraints of time or place (Hammoud et al., 2018). Bank Lampung is a regional development bank operating in Lampung Province and Jakarta. As one of the regional banks, Bank Lampung also offers mobile banking services.

Electronic service quality refers to the gap between customer expectations regarding service performance and the actual service experienced (Sasono et al., 2021). Amid increasingly fierce competition among banks, electronic service quality (e-service quality or e-servqual) has become a key factor in maintaining customer satisfaction and loyalty. Surviving in this competitive industry depends heavily on the quality of service delivered. Higher customer satisfaction leads to increased profitability (Raád Khashman, 2023). Satisfied customers are more likely to make repeat purchases and recommend the brand to others, thereby boosting the company’s revenue and growth. In contrast, low levels of customer satisfaction may result in negative reviews, customer loss, and damage to the company’s reputation (Sulaiman et al., 2021).

Banks need loyal customers because such customers are valuable assets. Highly loyal customers contribute to long-term relationships. Therefore, several factors influence e-loyalty, including e-service quality, e-trust, and e-satisfaction. Implementing strong e-servqual indicates a trustworthy company, which in turn increases customer comfort and leads to e-satisfaction. Consumers who are satisfied with a product tend to remain loyal to it (Putera et al., 2018). Customer satisfaction results from the customer’s perception of online convenience, business/transaction methods, site design, security, and service (Ranjibarian et al., 2012).

E-servqual is a method used to measure electronic service quality by comparing customer perceptions and expectations of online services, adapted by Zeithaml, Parasuraman, and Malhotra in 2000. The model emphasizes several key dimensions of electronic service quality. It is an adaptation of the original SERVQUAL model, which was designed to assess traditional face-to-face service interactions between customers and service providers.

Site Organization, as one of the e-servqual dimensions, refers to the layout, design, navigation, and information structure of digital platforms such as mobile banking. A previous study by Raza et al. (2020) found that well-organized websites—with structured layouts and intuitive navigation—had a significant positive effect on customer satisfaction in electronic banking services. However, this differs from the findings of Muslim Amin (2016), who found that site organization did not significantly influence e-customer loyalty. Customer loyalty was more strongly influenced by overall satisfaction with the service.

Reliability is a key dimension in e-servqual that significantly influences customer satisfaction. Customers expect error-free mobile banking services, with 24/7 accessibility and secure financial transactions. However, a study by Rahmi et al. (2023) found that reliability in mobile banking services did not have a significant partial effect on customer satisfaction at BCA Bank.

In e-servqual, responsiveness refers to a service provider’s ability to respond to customer needs quickly, offer necessary assistance, and handle complaints or issues efficiently. A prior study by Raza et al. (2020) found that responsiveness had a significant positive effect on customer satisfaction in internet banking in Pakistan. However, another study by Liem et al. (2020) showed that responsiveness did not significantly affect the satisfaction of mobile banking users at Bank XYZ.

User Friendliness in the e-servqual context refers to the ease of use and intuitive design of digital platforms such as mobile banking, requiring minimal effort or technical knowledge from users. A study by Raza et al. (2020) confirmed that user friendliness significantly contributed to user satisfaction in internet banking. However, a study by Veonnita & Rojuaniah (2022) found differing results: perceived ease of use did not significantly affect customer loyalty, indicating that even though the app was easy to use, it did not directly increase customer loyalty.

The Personal Need dimension of the e-servqual model refers to the extent to which mobile banking services meet users’ personal needs and preferences in digital transactions. Raza et al. (2020) found that personal need had a significant positive effect on electronic customer satisfaction in internet banking in Pakistan. However, a study by Trabelsi-Zoghlami et al. (2018) found that the information provided by the application did not significantly affect user e-trust, and that ease of use was only significant for specific age groups and genders.

Efficiency refers to the application’s ability to deliver fast, simple, and time-saving services to users. A study by Raza et al. (2020) emphasized that efficiency significantly influenced customer satisfaction in mobile banking. This finding suggests that the more efficient the service, the higher the customer satisfaction. However, different results were found by Hayani & Sukri (2021), whose study showed that efficiency did not significantly affect customer satisfaction. Their findings indicate that even though mobile banking services were efficient, this factor was not the main determinant of customer satisfaction.

Various negative reviews indicate that Bank Lampung's mobile banking has not yet met user expectations, particularly regarding the app's inefficiency. Complaints such as slow access speeds, unreliable features in emergency situations, and bugs on certain devices reflect technical weaknesses that diminish the user experience. Furthermore, reviews highlighting inconvenient procedures, such as inefficient processes for registering new devices, can foster the perception that the bank is not proactive in addressing customer personalization needs. These reviews also point to a lack of attention to application development and maintenance, which may harm the bank’s professional image in the public eye. If these negative reviews are not followed up with concrete improvements, the bank risks losing customer trust, lowering user retention rates, and facing increased competition from financial institutions offering better digital services. This highlights the urgency to improve the application’s quality and responsiveness to customer complaints.

A previous study by Khan et al. (2023) investigated the impact of online service quality on customer satisfaction and loyalty in the Pakistani banking sector during the COVID-19 pandemic. Service quality in banking has become a key topic of interest among academics and researchers due to declining customer loyalty and market share across much of the banking industry, largely driven by increased adoption of digital banking services and competition from players such as neobanks (Harris et al., 2023).

A prior study on e-servqual by Raza et al. (2020) revealed a positive correlation between customer satisfaction and electronic loyalty with responsiveness, personal need, reliability, user friendliness, site organization, and efficiency. However, differing results were found in a study by Putra et al. (2023), whose adaptation of e-servqual to this context showed that customer satisfaction was more influenced by efficiency and ease of navigation than by responsiveness.

Regarding site organization, a study by Ramadhanti & Indrawati (2023) found that a well-organized site has a positive and significant impact on customer satisfaction among BRImo users. According to Inzamam Ul Haq & Tahir Mumtaz Awan (2020), e-satisfaction has a positive and significant influence on e-loyalty in e-banking services. However, contrary findings were reported by Trabelsi-Zoghlami et al. (2018), who found that the information and design provided by mobile banking apps did not significantly impact user e-satisfaction or e-trust.

Based on these phenomena, this study aims to examine the influence of e-servqual and e-satisfaction on e-loyalty among mobile banking users. This research replicates the previous study conducted by Raza et al. (2020), but with several differences. The earlier study focused on internet banking service quality rather than mobile banking specifically and used a sample of bank customers in Pakistan. In contrast, the present study applies to Bank Lampung’s mobile banking application and is conducted in Indonesia.

The general problem in this study is the low loyalty of mobile banking users, which poses a challenge for banks, including Bank Lampung, amid increasing digital competition and rising customer expectations regarding the quality of electronic services (e-servqual). Specifically, there is still a lack of in-depth research examining how the dimensions of e-servqual (such as site organization, reliability, efficiency, privacy, and contact) influence electronic satisfaction (e-satisfaction) and how both affect electronic loyalty (e-loyalty) in the context of regional banking. This study differs from previous research as it focuses on Bank Lampung mobile banking users as a local object that has not been widely explored and examines a comprehensive integration of the e-servqual and e-satisfaction models to predict e-loyalty. Therefore, it is expected to contribute to the literature on strategies to enhance digital customer loyalty in the regional banking sector.

This study adopts the E-Servqual method, which assesses consumer perceptions of the quality of electronic services (Zeithaml et al., 2018). The e-servqual dimensions used in this research refer to the six dimensions developed by Raza et al. (2020), namely: Site Organization, Reliability, Responsiveness, User Friendliness, Personal Need, and Efficiency.

1. **LITERATURE REVIEW, HYPOTHESIS DEVELOPMENT, AND RESEARCH METHODS**

**Consumer Behavior in e-Banking**

Consumer behavior is one of the aspects influenced by internet advancements (Gotama et al., 2019). It refers to the patterns of decision-making, preferences, and responses of users toward products or services, including digital banking services such as mobile banking. In the context of e-banking, consumer behavior is influenced by technological, social, economic, and psychological factors, including trust, ease of use, and perceived benefits of digital banking channels (Matlala, N.P., 2024). Consumer behavior in mobile banking services reflects a complex interaction between technology, individual preferences, and external factors, encompassing several key dimensions.

Trust and perceived risk are major factors—data security, financial risks, and the credibility and reliability of the bank heavily affect service adoption (Mohapatra et al., 2023). In addition, ease of use is crucial, as consumers prefer simple and responsive interfaces, while complex applications often become a barrier for new users (Haider et al., 2024). Customer satisfaction with e-banking services, such as transaction speed and reliability, plays a key mediating role in building customer loyalty (Al-Dmour et al., 2019).

Social influence is also significant—user reviews, peer recommendations, and bank presence on social media affect customer decision-making (Awajneh & Abdalrahman, 2024). Based on the Technology Acceptance Model (TAM), consumer motivation toward e-banking is influenced by perceived usefulness and ease of use (Abdelrahman et al., 2024). Furthermore, customer loyalty toward these services depends not only on satisfaction but also on repeated positive experiences, personalized services, and transaction convenience (Sarwar & Naeem, 2024).

**Electronic Service Quality (E-Servqual)**

The E-Servqual method is a model used to measure electronic service quality (e-service) on digital platforms such as apps and websites. It is an adaptation of the original Servqual model developed for evaluating service quality in physical environments. E-Servqual helps to understand how customers’ perceptions and expectations of online services influence their satisfaction. The method, adapted by Parasuraman et al. (2005), is widely recognized as an evaluative tool to assess customer expectations and perceptions in electronic services. The relevant dimensions used to evaluate e-service quality comprehensively include Site Organization, Reliability, Responsiveness, User Friendliness, Personal Need, and Efficiency (Raza et al., 2020).

#### **Site Organization**

According to Gera (2011), site organization in cyber banking refers to the visual and functional management of websites accessed by web-based users. It is a crucial dimension in assessing electronic service quality, including in electronic banking services. This includes layout, design, and website structure intended to optimize user experience. Aesthetic elements such as attractive color combinations, relevant images, and well-structured interfaces play a key role in capturing user attention and conveying professionalism. Al-Hawari & Ward (2006) emphasized that site organization should be considered a significant factor in enhancing computerized banking in Australia and attracting new customers. A well-organized site makes it easier for users to find information efficiently, enhancing usability. Elements such as visual aesthetics, intuitive navigation, and logical information structure not only elevate perceived service quality but also positively impact overall user experience and satisfaction (Yang et al., 2004).

#### **Reliability**

Reliability is the ability to consistently fulfill promised services and is a core dimension in evaluating electronic service quality, particularly related to user trust in the system. According to Singh & Kaur (2013), although banks are known for their reliability in traditional services, it's essential to demonstrate the same reliability in web-based services. This dimension involves the system's capacity to provide consistent, accurate, and dependable services in line with customer expectations. In electronic banking, reliability includes the platform's uptime, accuracy of information provided, and swift transaction processing. A reliable electronic system significantly shapes users’ perceptions of service quality (Singh & Kaur, 2019).

#### **Responsiveness**

Responsiveness refers to the timeliness and effectiveness of the system’s responses to user queries or issues. Sheng & Liu (2010) define it as the promptness of cyber banking operators in responding to users. McNesh (2015) and Ali & Raza (2017) suggest that quick responses help maintain user interest and enhance satisfaction and loyalty. This dimension involves the platform’s ability to offer assistance, handle complaints, and answer inquiries swiftly. Responsiveness reflects both the speed and quality of solutions provided to users. Good responsiveness in e-banking significantly enhances user experience by making them feel supported when encountering problems. Features such as accessible customer service, real-time notifications, and responsive help centers are crucial in boosting perceptions of service quality.

#### **User Friendliness**

User friendliness is a vital dimension in evaluating e-banking service quality, particularly due to the diverse demographics of users, including the elderly. Wu & Cheng (2013) noted its importance, as many users may not be tech-savvy. This dimension includes intuitive interface design, simple navigation, and high accessibility—allowing users of various technological proficiency levels to quickly understand and use the service. It is essential to ensure usability for elderly users who may face challenges with complex digital interfaces (Wu & Chang, 2008).

#### **Personal Need**

According to Gronroos (2007), banks must consider users’ personal needs. With adequate data about user preferences, cyber banks can develop features to improve satisfaction and loyalty. Understanding individual customer needs allows banks to tailor services to meet expectations. In e-banking, such data can be transformed into innovative features that add value. Febriandika & Harun (2023) emphasized the importance of understanding user needs in the development of Islamic mobile banking services in Indonesia.

#### **Efficiency**

Efficiency is critical in ensuring user satisfaction and loyalty. It relates to ease and speed in using electronic systems, helping users fulfill needs effectively (Kheng et al., 2010). A system that provides fast, barrier-free services is essential for creating a positive user experience. Digital banking users expect simplicity from login to transaction completion, minimizing the time spent on tasks. Efficiency is a key e-servqual dimension that significantly influences customer satisfaction (Kheng et al., 2010).

**Electronic Satisfaction (E-Satisfaction)**

Electronic satisfaction (e-satisfaction) refers to the level of satisfaction experienced by consumers toward services delivered digitally, such as mobile banking services. In the context of electronic banking, e-satisfaction is a crucial factor as it directly influences customer loyalty and the continued adoption of technology. E-satisfaction is defined as the consumer’s subjective evaluation of their experience with electronic services, including service quality, ease of use, security, and transaction speed. It plays a key role in the success of digital services. Important dimensions of e-satisfaction include reliability—referring to the consistency in delivering promised services, speed of response to user needs, a simple and user-friendly interface, and security—particularly in safeguarding users’ personal and financial data (Shehu & Wahab, 2024).

**Electronic Loyalty (E-Loyalty)**

E-loyalty refers to customer loyalty toward digital products or services offered by a company. In the context of electronic banking, e-loyalty reflects the extent to which users of services such as mobile banking remain committed to the service they use, despite the availability of alternative options in the market. E-loyalty is defined as a consumer's commitment to continue using a specific electronic service, based on their positive experiences, trust, and satisfaction with the service. This form of loyalty involves not only repeated usage but also willingness to recommend the service to others (Gyebi et al., 2024).

Research Methods

This study adopts a quantitative research design. Quantitative research is defined as research that measures data and applies various forms of statistical analysis, aiming to generalize the results from a sample to the target population (Malhotra, 2020). The population of this study consists of Indonesian citizens who are customers using the mobile banking services of Bank Lampung.

According to Hair Jr. et al. (2019), sample size affects the statistical power by reducing sampling error. A larger sample size can minimize the adverse effects of distributional non-normality. Malhotra (2020) further states that if the analysis involves multivariate techniques, a larger sample size is required. Multivariate analysis is a technique used for complex research. Structural Equation Modeling (SEM) is one such multivariate statistical analysis method. Malhotra (2020) recommends that for complex SEM analyses, a sample size of 300 or more is advisable. Based on this recommendation, this study employs a maximum sample of 300 respondents, selected according to predetermined criteria.

The data analysis method used in this study is Partial Least Squares, Structural Equation Modeling (PLS-SEM), assisted by the SmartPLS software. PLS-SEM was chosen because it is capable of handling complex models and data that do not meet normality assumptions, in accordance with the recommendations of Hair et al. (2022). This approach is also considered effective for analyzing causal relationships between variables, particularly in the context of electronic service quality (E-Servqual), electronic satisfaction (E-Satisfaction), and electronic loyalty (E-Loyalty).

**Hypotesis**

The influence of Site Organization, or the structural arrangement of the application, plays an important role in enhancing electronic service quality (e-servqual), customer satisfaction, and user loyalty in mobile banking. A study conducted by Zainal et al. (2023) showed that intuitive navigation, responsive layout, and logical feature organization have a significant impact on user satisfaction with digital banking applications.

H1: The Site Organization of mobile banking affects e-satisfaction.

Reliability, or service reliability, is a key dimension of mobile banking service quality that significantly affects customer satisfaction. A study conducted by Alex S. et al. (2025) emphasized that service reliability has a significant influence on the satisfaction level of mobile banking customers. Reliability refers to the system's ability to provide consistent and timely services, including the accuracy of the information delivered and uninterrupted access. A positive perception of service reliability increases customer trust, which in turn strengthens their satisfaction with mobile banking services.

H2: The reliability of mobile banking affects e-satisfaction.

Responsiveness, or the responsiveness in digital banking services, reflects the speed and willingness of service providers to respond to customer needs or issues. This includes prompt responses to complaints, the provision of effective solutions, and the availability of technical support at all times. A study by Ciunova-Shuleska et al. (2022) showed that a high level of responsiveness in mobile banking services not only enhances customer satisfaction but also contributes to the intention to continue using the service.

H3: Responsiveness in mobile banking affects e-satisfaction.

User Friendliness, or ease of use, is a key element in enhancing electronic service quality (e-servqual), customer satisfaction, and user loyalty in mobile banking. Simple interfaces, intuitive navigation, and the reduction of technical barriers significantly improve the user experience in digital banking applications. A study by Hidayat & Pratama (2022) found that user friendliness directly contributes to perceived trust and comfort, which ultimately strengthens user loyalty.

H4: User Friendliness in mobile banking affects e-satisfaction.

Personal Need refers to individual requirements related to convenience, ease of access, and the ability of mobile banking services to meet the specific expectations of customers. Previous studies conducted by Jiang et al. (2023) and Kumar & Gupta (2022) indicated that services that accommodate personal customer needs, such as easy navigation, 24/7 accessibility, and data security, contribute significantly to customer satisfaction and loyalty.

H5: Personal Need affects e-satisfaction.

Efficiency in e-servqual refers to the ease and speed with which users can access and use digital services without obstacles. In the context of mobile banking, efficiency includes a simple user interface design, fast transaction processing times, and easy navigation within the application. Previous studies by Prasetyo & Lestari (2023) and Nugroho et al. (2024) stated that efficiency is a crucial factor in user experience, as fast and intuitive services can increase customer satisfaction and encourage loyalty toward digital banking services. Efficiency not only reduces users’ time burden but also creates the perception that the bank understands the customer’s need for practical and reliable services, which is key to retaining mobile banking users.

H6: Efficiency in mobile banking affects e-satisfaction.

A study conducted by Hossain & Quaddus (2023) showed that customer satisfaction significantly contributes to user loyalty in mobile banking services. The study revealed that aspects such as service reliability, ease of use, and security play a crucial role in shaping customer satisfaction, which in turn enhances loyalty. Similar findings were reported by Rizki et al. (2023), who stated that customers satisfied with the quality of digital banking services tend to be more loyal, both in terms of repeated usage and recommendations to others.

H7: E-Satisfaction has an effect on E-Loyalty.

1. **RESULT AND DISCUSSION**

**Descriptive Statistics Test Results**

The descriptive statistics test results summarize the data for each variable examined, including the mean, minimum and maximum values, and standard deviation. The mean value indicates the general tendency of respondents' answers toward each indicator, while the standard deviation reflects the degree of variation in the responses. The minimum and maximum values provide insight into the range of responses given.

**Table 1 The descriptive statistics results for the Site Organization variable.**

| **Statement** | **Minimum** | **Maximum** | **Mean** | **Std. Deviation** |
| --- | --- | --- | --- | --- |
| I find the visual appearance of the Bank Lampung mobile banking website attractive | 1 | 5 | 3.95 | 0.783 |
| I feel that the structure of the mobile banking display makes it easier for me to access services | 2 | 5 | 4.04 | 0.751 |
| I find the information on the Bank Lampung mobile banking app easy to find and not confusing | 1 | 5 | 4.05 | 0.770 |

Table 1 shows the descriptive statistics for the Site Organization variable, which includes three statements related to the visual and structural aspects of the Bank Lampung mobile banking application. The mean values range from 3.95 to 4.05, indicating that respondents generally agreed that the appearance and structure of the application are satisfactory and facilitate ease of use. The minimum and maximum values range from 1 to 5, reflecting diverse opinions among respondents, from strongly disagree to strongly agree. Additionally, all standard deviation values are below 1, suggesting low data dispersion and relatively consistent responses. Overall, these results indicate that the majority of users perceive the appearance and organization of the Bank Lampung mobile banking site as adequate.

**Table 2. Descriptive Statistics Results for the Reliability Variable**

| **Statement** | **Minimum** | **Maximum** | **Mean** | **Std. Deviation** |
| --- | --- | --- | --- | --- |
| I feel comfortable transacting through Bank Lampung's mobile banking because I have never experienced any errors so far | 1 | 5 | 3.86 | 0.820 |
| I believe Bank Lampung’s mobile banking system has adequate security features | 1 | 5 | 3.88 | 0.836 |
| Since the first time using it, I feel that Bank Lampung's mobile banking services have consistently performed well and met my expectations | 1 | 5 | 3.87 | 0.819 |
| I believe services are delivered within the promised timeframe | 1 | 5 | 3.89 | 0.794 |

Table 2 presents the descriptive statistical results for the **Reliability** variable, which assesses the reliability of Bank Lampung's mobile banking services. The mean values for each statement range from 3.86 to 3.89, indicating that respondents generally agree that the service is reliable and meets their expectations. All statements have minimum values of 1 and maximum values of 5, reflecting variation in perceptions, from strongly disagree to strongly agree. Meanwhile, standard deviation values fall between 0.794 and 0.836, suggesting low variability in responses and relatively consistent opinions among respondents. Overall, the results indicate that most users have a positive perception of the reliability of Bank Lampung’s mobile banking service.

**Table 3. Descriptive Statistics Results for the Responsiveness Variable**

| **Statement** | **Minimum** | **Maximum** | **Mean** | **Std. Deviation** |
| --- | --- | --- | --- | --- |
| I feel that Bank Lampung's mobile banking service always responds quickly whenever I need it | 1 | 5 | 3.54 | 1.022 |
| I feel that Bank Lampung's mobile banking server is always responsive and rarely experiences disruptions when I access the service | 1 | 5 | 3.80 | 0.846 |
| I feel that Bank Lampung's mobile banking informs users about the service completion time | 1 | 5 | 4.07 | 0.760 |

Table 3 presents the descriptive statistical results for the Responsiveness variable, which measures the responsiveness of Bank Lampung’s mobile banking service. The mean values range from 3.54 to 4.07, indicating that most respondents have a generally positive perception of the speed and responsiveness of the service, although there is some doubt regarding the initial response speed (mean of 3.54). The highest standard deviation is found in the first statement (1.022), suggesting a relatively wide range of opinions among respondents concerning the promptness of service when needed. Overall, the data indicates that Bank Lampung’s mobile banking is considered reasonably responsive, especially in terms of communicating service completion times, though there is still room for improvement in direct response speed.

**Table 4. Descriptive Statistics Results for the User Friendliness Variable**

| **Statement** | **Minimum** | **Maximum** | **Mean** | **Std. Deviation** |
| --- | --- | --- | --- | --- |
| I find Bank Lampung's mobile banking website easy to use | 1 | 5 | 3.95 | 0.744 |
| I find the navigation on Bank Lampung's mobile banking website easy to follow | 1 | 5 | 3.86 | 0.858 |
| I find Bank Lampung's mobile banking website runs smoothly | 1 | 5 | 3.70 | 0.920 |
| I find the Bank Lampung mobile banking website pages rarely experience disruptions | 1 | 5 | 3.96 | 0.759 |
| I recommend using Bank Lampung's mobile banking to others | 1 | 5 | 3.96 | 0.786 |

Table 4. presents the descriptive statistical results for the **User Friendliness** variable, which reflects how users perceive the ease of use of Bank Lampung's mobile banking services. The mean values range from 3.70 to 3.96, indicating that respondents generally feel satisfied with the usability, navigation, and overall smoothness of the service. The highest mean values are found in the statements regarding the infrequency of website disruptions and users’ likelihood to recommend the service to others (each at 3.96), suggesting trust and positive user experience. However, the lowest mean appears in the statement about the website’s smooth performance (mean = 3.70), which also has the highest standard deviation (0.920), indicating varied user perceptions regarding the platform’s technical performance. Overall, the data shows that Bank Lampung's mobile banking service is considered fairly user-friendly by the majority of respondents, although improvements in technical performance are still needed to further optimize the user experience.

**Table 5. Descriptive Statistics Results for the Personal Need Variable**

| **Statement** | **Minimum** | **Maximum** | **Mean** | **Std. Deviation** |
| --- | --- | --- | --- | --- |
| I feel safe when making transactions through Bank Lampung’s mobile banking | 1 | 5 | 3.89 | 0.770 |
| I feel that Bank Lampung’s mobile banking website meets my personal needs | 1 | 5 | 3.85 | 0.817 |
| I feel that Bank Lampung’s mobile banking website provides information and products according to my preferences | 1 | 5 | 3.97 | 0.722 |

Table 5 presents the descriptive statistical results for the Personal Need variable, which measures respondents’ perceptions of how well Bank Lampung's mobile banking service addresses their personal needs. Overall, the mean values for the three statements range from 3.85 to 3.97, indicating that respondents show a relatively high level of satisfaction regarding security, information relevance, and the fulfillment of personal preferences. The statement with the highest mean value is "I feel that Bank Lampung’s mobile banking website provides information and products according to my preferences" (mean = 3.97), suggesting that users perceive the service content as relevant to their needs. The relatively small standard deviations (ranging from 0.722 to 0.817) also indicate consistent responses among participants. These findings suggest that personalization and a sense of security are key aspects of the mobile banking user experience and are adequately fulfilled by Bank Lampung’s service.

**Table 6. Descriptive Statistics Results for the Efficiency Variable**

| **Statement** | **Minimum** | **Maximum** | **Mean** | **Std. Deviation** |
| --- | --- | --- | --- | --- |
| I find it easy to locate the information I need on the Bank Lampung mobile banking website | 1 | 5 | 3.99 | 0.776 |
| In my opinion, navigating between pages on the Bank Lampung mobile banking website is easy and convenient | 1 | 5 | 3.97 | 0.722 |
| I feel I can complete transactions quickly using Bank Lampung mobile banking | 1 | 5 | 3.89 | 0.821 |

Table 6 presents the descriptive statistical results for the **Efficiency** variable, which reflects users’ perceptions regarding the ease and speed of using Bank Lampung’s mobile banking services. The mean values for the three statements range from 3.89 to 3.99, indicating that respondents are generally satisfied with the efficiency of the service. The statement with the highest mean value is "I find it easy to locate the information I need on the Bank Lampung mobile banking website" (mean = 3.99), suggesting that information accessibility is perceived as the strongest aspect. The relatively low standard deviations (ranging from 0.722 to 0.821) also indicate consistency in respondents’ answers. These results suggest that Bank Lampung’s mobile banking service successfully delivers an efficient user experience in terms of both navigation and transaction speed.

**Table 7. Descriptive Statistics Results for the E-Satisfaction Variable**

| **Statement** | **Minimum** | **Maximum** | **Mean** | **Std. Deviation** |
| --- | --- | --- | --- | --- |
| I find the Bank Lampung mobile banking service enjoyable | 1 | 5 | 3.97 | 0.762 |
| I feel that the Bank Lampung mobile banking service meets my expectations | 1 | 5 | 3.87 | 0.860 |
| I feel that the Bank Lampung mobile banking service meets my needs | 1 | 5 | 3.72 | 0.912 |

Table 7 presents the descriptive statistical results for the **E-Satisfaction** variable, which measures the level of user satisfaction with Bank Lampung’s mobile banking service. The mean values range from 3.72 to 3.97, indicating that respondents generally feel satisfied with the service. The statement with the highest mean value is “I find the Bank Lampung mobile banking service enjoyable” (mean = 3.97), while the lowest mean is found in “I feel that the Bank Lampung mobile banking service meets my needs” (mean = 3.72). This suggests that although the service is perceived as enjoyable and aligned with expectations, there remains room for improvement in terms of fulfilling users’ personal needs more comprehensively. The standard deviation values, ranging from 0.762 to 0.912, reflect some variation in perceptions, but the deviation is not too wide, indicating that most respondents had relatively similar experiences with the service.

**Table 8. Descriptive Statistics Results for the E-Loyalty Variable**

| **Statement** | **Minimum** | **Maximum** | **Mean** | **Std. Deviation** |
| --- | --- | --- | --- | --- |
| I will continue using Bank Lampung’s mobile banking service even if other applications are available | 1 | 5 | 3.86 | 0.802 |
| I feel emotionally attached to Bank Lampung’s mobile banking service | 1 | 5 | 3.70 | 0.920 |
| I will recommend Bank Lampung’s mobile banking service to others | 1 | 5 | 3.96 | 0.759 |

Table 8 presents the descriptive statistical results for the E-Loyalty variable, which aims to measure user loyalty toward Bank Lampung’s mobile banking service. The mean values range from 3.70 to 3.96, indicating that respondents generally exhibit a relatively high level of loyalty to the service. The statement with the highest mean is “I will recommend Bank Lampung’s mobile banking service to others” (mean = 3.96), reflecting a strong willingness among users to promote the application. Conversely, the statement “I feel emotionally attached to Bank Lampung’s mobile banking service” recorded the lowest mean (3.70), suggesting that emotional attachment is not as strong as functional or satisfaction-based loyalty. The standard deviation values, ranging from 0.759 to 0.920, indicate a moderate variation in user perceptions, especially regarding emotional aspects, which should be addressed to enhance long-term loyalty.

### ****Discriminant Validity Test****

Discriminant validity is a test used in statistical analysis, particularly in Structural Equation Modeling (SEM), to ensure that each construct or latent variable in the model is truly distinct from the others. This test is crucial to avoid overlap between constructs that could lead to biased interpretations of results. Discriminant validity is commonly assessed using several methods such as the Fornell-Larcker Criterion, Cross Loadings, and the Heterotrait-Monotrait Ratio (HTMT). If the correlation between constructs is lower than the square root of the Average Variance Extracted (AVE) of the respective construct (Fornell-Larcker), or if the HTMT value is below a certain threshold (generally < 0.90), then the model is considered to have good discriminant validity. This indicates that each construct in the model measures a distinct concept.

**Table 9. Discriminant Validity Test Results – Fornell-Larcker Criterion**

| **Variable** | **E-Loyalty** | **E-Satisfaction** | **Efficiency** | **Personal Need** | **Reliability** | **Responsiveness** | **Site Organization** | **User Friendliness** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **E-Loyalty** | **0.88** |  |  |  |  |  |  |  |
| **E-Satisfaction** | 0.859 | **0.92** |  |  |  |  |  |  |
| **Efficiency** | 0.784 | 0.801 | **0.909** |  |  |  |  |  |
| **Personal Need** | 0.823 | 0.820 | 0.845 | **0.921** |  |  |  |  |
| **Reliability** | 0.842 | 0.811 | 0.773 | 0.782 | **0.853** |  |  |  |
| **Responsiveness** | 0.856 | 0.797 | 0.777 | 0.793 | 0.887 | **0.871** |  |  |
| **Site Organization** | 0.775 | 0.762 | 0.749 | 0.779 | 0.813 | 0.801 | **0.87** |  |
| **User Friendliness** | 0.937 | 0.850 | 0.829 | 0.843 | 0.863 | 0.889 | 0.792 | **0.867** |

Table 9. displays the discriminant validity results using the Fornell-Larcker Criterion, which compares the square root of the AVE (highlighted in bold diagonals) with the inter-construct correlations (values below the diagonal). A construct is considered to possess good discriminant validity if its AVE square root is greater than its correlation with any other construct. Based on the table, all diagonal values are higher than the corresponding correlations in their respective rows and columns. This indicates that each construct, such as E-Loyalty, E-Satisfaction, Efficiency, and User Friendliness, can be clearly distinguished from the others. Therefore, it can be concluded that the model demonstrates strong discriminant validity, and each construct distinctly measures a different concept. The following table presents the Cross Loadings results.

**Table 10. Cross Loadings Test Results**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Item** | ***E-Loyalty*** | ***E-Satisfaction*** | ***Efficiency*** | ***Personal Need*** | ***Reliability*** | ***Responsiveness*** | ***Site Organization*** | ***User Friendliness*** |
| ﻿X11 | 0.721 | 0.711 | 0.622 | 0.7 | 0.687 | 0.683 | **0.864** | 0.695 |
| X12 | 0.633 | 0.611 | 0.683 | 0.649 | 0.673 | 0.677 | **0.86** | 0.664 |
| X13 | 0.663 | 0.659 | 0.656 | 0.681 | 0.762 | 0.729 | **0.886** | 0.706 |
| X21 | 0.697 | 0.658 | 0.65 | 0.65 | 0.829 | 0.715 | **0.718** | 0.693 |
| X22 | 0.713 | 0.7 | 0.642 | 0.659 | **0.851** | 0.767 | 0.692 | 0.727 |
| X23 | 0.699 | 0.692 | 0.635 | 0.675 | **0.84** | 0.744 | 0.675 | 0.74 |
| X24 | 0.763 | 0.716 | 0.709 | 0.684 | **0.892** | 0.799 | 0.694 | 0.782 |
| X31 | 0.757 | 0.656 | 0.649 | 0.616 | 0.729 | **0.85** | 0.626 | 0.771 |
| X32 | 0.74 | 0.707 | 0.658 | 0.714 | 0.808 | **0.89** | 0.664 | 0.754 |
| X33 | 0.741 | 0.718 | 0.722 | 0.736 | 0.779 | **0.873** | 0.797 | 0.798 |
| X41 | 0.78 | 0.734 | 0.737 | 0.751 | 0.777 | 0.805 | 0.74 | **0.889** |
| X42 | 0.789 | 0.722 | 0.72 | 0.687 | 0.77 | 0.8 | 0.644 | **0.882** |
| X43 | 0.867 | 0.719 | 0.651 | 0.673 | 0.744 | 0.764 | 0.622 | **0.865** |
| X44 | 0.884 | 0.722 | 0.701 | 0.723 | 0.736 | 0.771 | 0.707 | **0.853** |
| X45 | 0.747 | 0.783 | 0.777 | 0.81 | 0.714 | 0.716 | 0.715 | **0.846** |
| X51 | 0.792 | 0.779 | 0.785 | **0.929** | 0.74 | 0.742 | 0.742 | 0.829 |
| X52 | 0.78 | 0.76 | 0.766 | **0.938** | 0.735 | 0.751 | 0.725 | 0.779 |
| X53 | 0.7 | 0.725 | 0.786 | **0.896** | 0.684 | 0.697 | 0.685 | 0.717 |
| X61 | 0.662 | 0.681 | **0.88** | 0.695 | 0.66 | 0.702 | 0.632 | 0.72 |
| X62 | 0.728 | 0.744 | **0.93** | 0.779 | 0.728 | 0.721 | 0.715 | 0.769 |
| X63 | 0.745 | 0.756 | **0.915** | 0.825 | 0.717 | 0.698 | 0.693 | 0.77 |
| Y11 | 0.781 | **0.912** | 0.783 | 0.768 | 0.782 | 0.752 | 0.738 | 0.822 |
| Y12 | 0.79 | **0.932** | 0.735 | 0.766 | 0.709 | 0.719 | 0.663 | 0.776 |
| Y13 | 0.798 | **0.915** | 0.691 | 0.728 | 0.746 | 0.727 | 0.7 | 0.747 |
| Y21 | **0.89** | 0.819 | 0.717 | 0.774 | 0.744 | 0.73 | 0.715 | 0.767 |
| Y22 | **0.867** | 0.719 | 0.651 | 0.673 | 0.744 | 0.764 | 0.622 | 0.865 |
| Y23 | **0.884** | 0.722 | 0.701 | 0.723 | 0.736 | 0.771 | 0.707 | 0.853 |

The results of the Cross Loadings test shown in Table 10 indicate that each indicator has the highest loading on the construct it is intended to measure, compared to other constructs. This means that each item correlates more strongly with its designated latent variable than with any other construct. Moreover, no indicators show cross-loadings that are close to or higher on other constructs than on their own, reinforcing the discriminant validity of the constructs. This cross loading analysis confirms that each latent variable in the model, such as E-Loyalty, E-Satisfaction, Efficiency, and others, has a distinct measurement structure. Therefore, the model demonstrates adequate measurement quality in terms of discriminant validity. The following table presents the results of the Heterotrait-Monotrait Ratio (HTMT) test.

**Table 11. Result HTMT Test**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | ***E-Loyalty*** | ***E-Satisfaction*** | ***Efficiency*** | ***Personal Need*** | ***Reliability*** | ***Responsiveness*** | ***Site Organization*** | ***User Friendliness*** |
| ***E-Loyalty*** |  |  |  |  |  |  |  |  |
| ***E-Satisfaction*** | 0.87 |  |  |  |  |  |  |  |
| ***Efficiency*** | 0.894 | 0.787 |  |  |  |  |  |  |
| ***Personal Need*** | 0.729 | 0.811 | 0.735 |  |  |  |  |  |
| ***Reliability*** | 0.773 | 0.809 | 0.802 | 0.775 |  |  |  |  |
| ***Responsiveness*** | 0.712 | 0.711 | 0.796 | 0.803 | 0.732 |  |  |  |
| ***Site Organization*** | 0.871 | 0.768 | 0.765 | 0.789 | 0.749 | 0.751 |  |  |
| ***User Friendliness*** | 0.763 | 0.829 | 0.713 | 0.819 | 0.762 | 0.713 | 0.812 |  |

Table 11 presents the results of the Heterotrait-Monotrait Ratio (HTMT) test, which is used to assess the discriminant validity between constructs in the research model. Discriminant validity is considered acceptable if the HTMT values between constructs are below 0.90 (Henseler et al., 2015). Based on the table above, all HTMT values between variables fall below the 0.90 threshold, indicating that each construct in the model is statistically distinct from the others. It can be concluded that the model satisfies the requirements of discriminant validity, and each variable in the study is conceptually independent.

**Table 12. Reselt of Average Variance Extracted (AVE) Test**

| **Variable** | **Average Variance Extracted (AVE)** |
| --- | --- |
| *E-Loyalty* | 0.775 |
| *E-Satisfaction* | 0.846 |
| *Efficiency* | 0.826 |
| *Personal Need* | 0.849 |
| *Reliability* | 0.728 |
| *Responsiveness* | 0.759 |
| *Site Organization* | 0.757 |
| *User Friendliness* | 0.752 |

The AVE (Average Variance Extracted) value is used to assess convergent validity, which refers to the extent to which indicators of a construct are highly correlated with one another. In general, a recommended AVE value is at least 0.50, meaning that more than 50% of the variance of the indicators can be explained by the construct. Based on the table, all variables have AVE values above 0.70, indicating that each construct possesses very good convergent validity. Thus, the indicators used in this study are adequately able to explain their respective constructs.

**Construct Reliability Test**

The Construct Reliability test aims to evaluate the internal consistency of the indicators in measuring a construct. Two commonly used measures in this test are Cronbach's Alpha and Composite Reliability (CR). Values above 0.70 for both are considered good, indicating that the indicators have a high level of reliability in measuring the intended latent variable. If all variables have CR and Cronbach's Alpha values above this threshold, it can be concluded that the constructs in the model have strong construct reliability, making the analysis results trustworthy and suitable for further testing of relationships between variables. The following are the results of the Construct Reliability test.

**Table 13. Result of Construct Reliability Test**

|  |  |  |
| --- | --- | --- |
| **Variabel** | ***Cronbach's Alpha*** | ***Composite Reliability*** |
| *E-Loyalty* | 0.855 | 0.912 |
| *E-Satisfaction* | 0.909 | 0.943 |
| *Efficiency* | 0.894 | 0.934 |
| *Personal Need* | 0.911 | 0.944 |
| *Reliability* | 0.875 | 0.915 |
| *Responsiveness* | 0.841 | 0.904 |
| *Site Organization* | 0.84 | 0.903 |
| *User Friendliness* | 0.917 | 0.938 |

This indicates that each construct, such as E-Loyalty, E-Satisfaction, Efficiency, Personal Need, Reliability, Responsiveness, Site Organization, and User Friendliness, has very good internal consistency and is able to reliably reflect the latent construct being measured. The highest Cronbach’s Alpha value was found in the User Friendliness variable (0.917), while the highest CR value was observed in Personal Need (0.944). All constructs in the model can be considered reliable and are appropriate for use in subsequent structural model testing.

**Model Fit Test Results**

The Model Fit test in SEM-PLS analysis is conducted to evaluate how well the constructed structural model aligns with the observed data. One commonly used indicator is the SRMR (Standardized Root Mean Square Residual), where a value below 0.08 indicates a good model fit. If the SRMR value in this study falls below that threshold, it can be concluded that the research model is appropriate and suitable for further analysis. A good model fit indicates that the relationships between constructs in the model accurately reflect the patterns observed in the data.

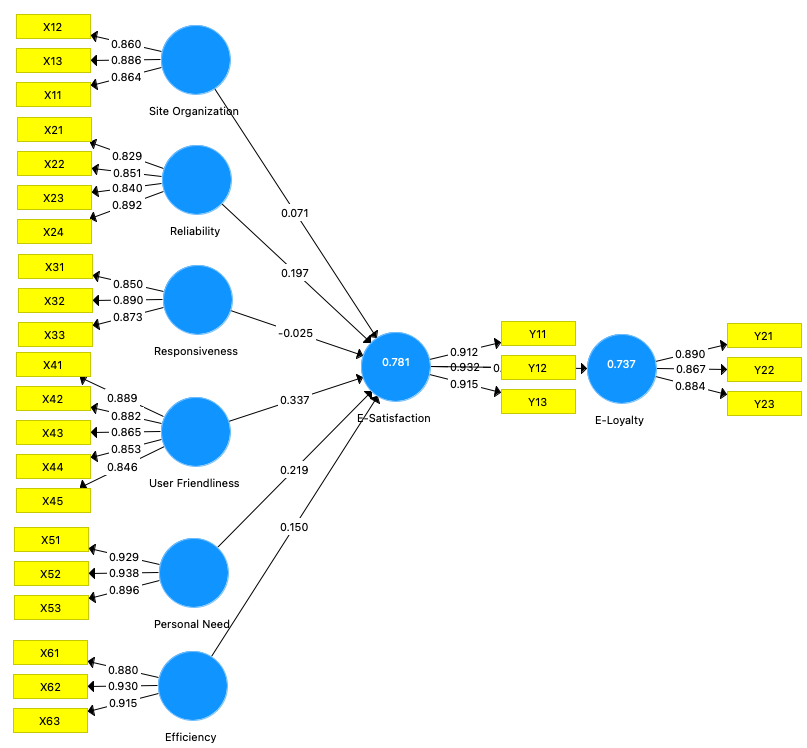
**Table 14. Model Fit Test Results**

| **Fit Measure** | **Saturated Model** | **Estimated Model** |
| --- | --- | --- |
| SRMR | 0.053 | 0.072 |
| d\_ULS | 1.08 | 1.977 |

Based on Table 14, the model fit test results show that the SRMR (Standardized Root Mean Square Residual) value for the saturated model is 0.053 and for the estimated model is 0.072. Both are below the threshold of 0.08, indicating that the model has a good fit with the data. In addition, the d\_ULS (Squared Euclidean Distance) values are also relatively low, 1.08 for the saturated model and 1.977 for the estimated model, which further supports that the model structure is consistent with the empirical data.

**Partial Least Square (PLS) Analysis Model**

The figure below represents the Partial Least Square (PLS) analysis model used in this study.



**Figure 1. Partial Least Square (PLS) analysis model**

**Hypothesis Testing Results**

Hypothesis testing is a statistical procedure used to examine the validity of a statement or assumption (hypothesis) about a population parameter based on sample data. In quantitative research, hypothesis testing is conducted to determine whether there is a significant relationship or effect between the studied variables. This process typically involves two types of hypotheses: the null hypothesis (H₀), which states that there is no effect or relationship, and the alternative hypothesis (H₁), which states that there is an effect or relationship. Through statistical analyses such as regression, SEM, or t-tests, researchers can decide whether to reject or accept the null hypothesis based on the resulting significance value (p-value).

**Table 15. Path Coefficient Hypothesis Testing Results**

| **Influence Between Variables** | **Original Sample** | **T Statistics** | **P Values** | **Conclusion** |
| --- | --- | --- | --- | --- |
| E-Satisfaction -> E-Loyalty | 0.859 | 45.028 | 0.000 | H₀ rejected, H₁ accepted (Significant) |
| Efficiency -> E-Satisfaction | 0.150 | 2.337 | 0.012 | H₀ rejected, H₁ accepted (Significant) |
| Personal Need -> E-Satisfaction | 0.219 | 2.491 | 0.013 | H₀ rejected, H₁ accepted (Significant) |
| Reliability -> E-Satisfaction | 0.197 | 2.479 | 0.014 | H₀ rejected, H₁ accepted (Significant) |
| Responsiveness -> E-Satisfaction | 0.025 | 2.272 | 0.005 | H₀ rejected, H₁ accepted (Significant) |
| Site Organization -> E-Satisfaction | 0.071 | 2.982 | 0.027 | H₀ rejected, H₁ accepted (Significant) |
| User Friendliness -> E-Satisfaction | 0.337 | 3.068 | 0.002 | H₀ rejected, H₁ accepted (Significant) |

Based on the hypothesis testing results in the structural model, all causal paths between the variables show significant results. The relationship between E-Satisfaction and E-Loyalty has an original sample value of 0.859, with a T statistic of 45.028 and a P value of 0.000. This indicates that user satisfaction with Bank Lampung’s mobile banking service has a very strong and significant impact on user loyalty, leading to the acceptance of the alternative hypothesis (H₁). In other words, the higher the level of user satisfaction, the higher their loyalty to the service.

In addition, all dimensions of e-SERVQUAL, such as Efficiency, Personal Need, Reliability, Responsiveness, Site Organization, and User Friendliness, are proven to have a significant effect on E-Satisfaction. Among these, User Friendliness (0.337) contributes the greatest influence on user satisfaction, followed by Personal Need (0.219) and Reliability (0.197). Even the variable Responsiveness, despite having the smallest effect (0.025), is still statistically significant with a P value of 0.005 and a T statistic above 2. This shows that all aspects of electronic service quality collectively explain the formation of customer satisfaction, which ultimately leads to increased user loyalty.

**Discussion of Research Findings**

**The Influence of Site Organization on E-Satisfaction**

Based on the test results, the effect of Site Organization on E-Satisfaction yielded a path coefficient value of 0.071, with a T-statistic of 2.982 and a P-value of 0.027. Since the P-value is smaller than the 0.05 significance level, it can be concluded that the null hypothesis (H₀) is rejected and the alternative hypothesis (H₁) is accepted. This indicates a significant effect of Site Organization on E-Satisfaction.

Substantively, this suggests that the structure and layout of the Bank Lampung mobile banking app contribute to user satisfaction. Users are more satisfied when information is easy to find, the layout is tidy, and the site navigation is well-organized. Therefore, the development of the interface and information architecture within the mobile banking app is an important aspect that Bank Lampung must focus on to enhance user experience and overall digital satisfaction.  
This finding is consistent with Rahman and Aziz (2022), who found that optimal site organization can improve perceived service reliability and facilitate easier transactions, ultimately increasing satisfaction. A logically and intuitively designed site allows users to access information and complete transactions easily and without significant barriers. This creates a pleasant and efficient experience, which is a crucial factor in shaping satisfaction with digital services such as mobile banking.

The effect of site organization on e-satisfaction shows that a well-structured layout and information architecture in Bank Lampung's mobile banking application significantly contribute to increased user satisfaction. The implication is that if the application is organized with easy navigation, attractive visuals, and clearly presented and structured information, users will feel more comfortable and satisfied. This satisfaction not only enhances the user experience but also fosters long-term loyalty and a positive perception of Bank Lampung's digital service quality.

**The Influence of Reliability on E-Satisfaction**

The analysis shows that reliability has a positive and significant effect on e-satisfaction, with a coefficient value of 0.197, a T-statistic of 2.479, and a P-value of 0.014. This indicates that the more users perceive the mobile banking service as reliable—such as service accuracy, transaction security, and system consistency—the higher their satisfaction. Reliability thus becomes one of the key factors determining satisfaction in using digital banking services.  
This finding aligns with Nguyen et al. (2023), who found that reliability has a positive and significant effect on e-satisfaction. Reliability is not only based on the app’s technical performance but also the responsiveness of customer support. When users feel the app rarely crashes and issues are quickly addressed, their perception of service reliability increases, ultimately enhancing satisfaction.

Practically, this suggests that reliability plays a critical role in shaping satisfaction for users of Bank Lampung's mobile banking. A stable app that doesn’t frequently experience issues and processes transactions as expected fosters trust and comfort. System reliability is a core foundation of the digital banking experience, as even minor technical disruptions can interfere with financial activities and lower satisfaction.

The implication is that Bank Lampung must prioritize the development, maintenance, and performance enhancement of its mobile banking app. Furthermore, improving the responsiveness and effectiveness of customer service is essential, as both technical reliability and support responsiveness complement each other in building a reliable perception. By maintaining a robust system and responsive support, Bank Lampung can enhance user satisfaction and build long-term loyalty.

**The Influence of Responsiveness on E-Satisfaction**

The research shows that responsiveness in Bank Lampung's mobile banking service has a positive and significant effect on e-satisfaction. The original sample value of 0.025 with a T-statistic of 2.272 and a P-value of 0.005 (< 0.05) indicates that the more responsive the service—whether system-wise or customer support—the higher the user satisfaction. Responsiveness reflects how well the application and service provider can respond promptly to user needs, questions, or complaints.

This aligns with Leon et al. (2020), who stated that quick response to customer needs directly impacts their positive perception of service quality. When users feel their complaints or inquiries are promptly addressed, it builds a sense of being valued and increases trust in the service. Good responsiveness not only promotes short-term satisfaction but also forms a critical foundation for long-term user loyalty.

The implication is that Bank Lampung needs to focus on enhancing responsiveness within its mobile banking app. Features such as real-time transaction notifications, fast page loading, and live support should be optimized to ensure users feel well-served. Immediate access to information or solutions creates a positive experience and reduces potential frustration.  
Furthermore, increasing responsiveness not only directly improves satisfaction but also shapes the perception that Bank Lampung cares about its customers' needs. When users feel valued and promptly served, they tend to trust and continue using the service long-term. Hence, responsiveness is a key pillar in the strategy for increasing user satisfaction and loyalty in the digital service era.

**The Influence of User Friendliness on E-Satisfaction**

The analysis shows that user friendliness significantly and positively affects e-satisfaction in Bank Lampung’s mobile banking app. The original sample value is 0.337 with a P-value of 0.002 and a T-statistic of 3.068, indicating that easier navigation, intuitive design, and ease of completing transactions lead to higher user satisfaction.

This result is consistent with Hidayat and Pratama (2022), who found that user friendliness directly contributes to perceptions of trust and comfort, which in turn reinforce user loyalty. When users find the app easy to use, responsive, and intuitive, they are more likely to trust the system and feel comfortable transacting, building a foundation for long-term loyalty.  
Ease of use is a key aspect of digital experiences, especially in app-based banking services. Mobile banking users generally expect quick, efficient processes without needing technical knowledge. Therefore, easy-to-understand features, a simple but functional interface, and clear transaction flows will shape a positive service perception. Bank Lampung must ensure that all elements of the app are continuously adjusted to meet diverse user needs, thereby maintaining satisfaction and promoting long-term loyalty.

**The Influence of Personal Need on E-Satisfaction**

The research shows that the Personal Need variable significantly affects E-Satisfaction, with a coefficient value of 0.219, a T-statistic of 2.491, and a P-value of 0.013. This means that the more a mobile banking app meets users’ personal needs, the higher their satisfaction. An app that can tailor features, information, and services to users’ preferences and specific needs offers a more relevant and meaningful experience, thus enhancing overall satisfaction.  
This finding aligns with Alarifi and Husain (2023), who stated that banks capable of customizing digital services based on individual needs tend to experience significantly higher customer satisfaction. This customization includes relevant features, ease of access to needed information, and a personalized experience. When users feel that the service truly understands and meets their needs, trust and satisfaction rise, strengthening long-term relationships.  
Practically, this means Bank Lampung should continue innovating in offering personalized mobile banking services. Features such as clear transaction history, product recommendations based on user activity, and easy access to frequently used information provide added value. By understanding and effectively fulfilling individual customer needs, Bank Lampung can increase satisfaction and create a more positive digital experience, which may lead to increased user loyalty.

**The Influence of Efficiency on E-Satisfaction**

The research shows that efficiency significantly affects e-satisfaction, with a coefficient of 0.150, a T-statistic of 2.337, and a P-value of 0.012. This suggests that the more efficient the mobile banking system is—such as easy information retrieval, fast transactions, and smooth navigation, the higher the user satisfaction. This aligns with the findings of Prasetyo and Lestari (2023) and Nugroho et al. (2024), who emphasized that efficiency is a key factor in shaping a positive user experience. Fast, intuitive, and easy-to-understand digital banking services increase satisfaction by minimizing transaction barriers. When users feel the system operates efficiently and saves time, they tend to have a more positive perception of the service, promoting long-term loyalty.

The implication is that Bank Lampung must continually refine its digital banking system to remain responsive and efficient. A seamless, easy, and hassle-free user experience fosters satisfaction and encourages repeat usage. In the context of growing competition in digital financial services, system efficiency can be a competitive advantage that retains and attracts users while boosting loyalty through satisfaction.

**The Influence of E-Satisfaction on E-Loyalty**

The research shows that E-Satisfaction significantly influences E-Loyalty, with a coefficient of 0.859, a T-statistic of 45.028, and a P-value of 0.000. This means that the more satisfied users are with Bank Lampung’s mobile banking, the more likely they are to remain loyal. The high coefficient indicates a very strong relationship, and the extremely small P-value strengthens the evidence that this relationship is not due to chance.

This result is in line with Hossain and Quaddus (2023), who found that customer satisfaction significantly contributes to user loyalty in mobile banking services. When customers are satisfied with convenience, speed, security, and comfort in using the app, they tend to keep using it and recommend it to others. Positive experiences that lead to satisfaction create long-term relationships between users and service providers, ultimately reinforcing digital loyalty.  
This finding confirms that user satisfaction is a key factor in building loyalty in digital banking services. When users are satisfied because the service meets expectations, is easy to use, responsive, and reliable, they will not only continue using the app but are also more likely to recommend it. Therefore, to foster long-term loyalty, Bank Lampung must consistently improve the quality of its mobile banking services and maintain user satisfaction through continuous innovation and enhancement.

1. **CONCLUSION**

Based on the results of data processing and discussion that has been done, this research can be concluded as follows:

1. Site Organization has a positive and significant effect on E-Satisfaction.
2. Reliability has a positive and significant effect on E-Satisfaction.
3. Responsiveness has a positive and significant effect on E-Satisfaction.
4. User Friendliness has a positive and significant effect on E-Satisfaction.
5. Personal Need has a positive and significant effect on E-Satisfaction.
6. Efficiency has a positive and significant effect on E-Satisfaction.
7. E-Satisfaction has a positive and significant effect on E-Loyalty.

**COMPETING INTERESTS DISCLAIMER:**

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

**Disclaimer (Artificial intelligence)**

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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