

The Effect of Usability on Satisfaction and its Impact on Bni Mobile Banking User Loyalty in Bandar Lampung

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Abstract. Many users of BNI Mobile Banking still encounter issues when using the application, indicating the need for improvements in its usability. This research addresses the necessity of enhancing the usability of the BNI Mobile Banking app, as numerous complaints have been reported by users. The study aims to identify the indicators that need improvement to ensure user satisfaction and foster continued loyalty to BNI Mobile Banking. The research employs a quantitative method to examine the impact of usability on user satisfaction and loyalty. Data was collected through questionnaires with a sample size of 170 respondents, selected using purposive sampling. Statistical tests employed include validity tests, reliability tests, path analysis, mediation tests, and regression analysis using SPSS software. The findings indicate that usability has a positive and significant impact on both satisfaction and loyalty also satisfaction has a positive and significant impact on loyalty. Additionally, there is an indirect effect of satisfaction on the relationship between usability and loyalty. The study suggests that future research should incorporate the one independent variable of usefulness.

Keywords: Usability Satisfaction, Loyalty, Mobile Banking, Digital Marketing.

INTRODUCTION

In the current digital era, many companies have adjusted their strategies due to technological advancements, shifting from conventional marketing to digital marketing or e-marketing. Digital marketing is crucial as consumer behavior has changed from traditional marketing to e-marketing. It also allows businesses to reach a broader audience, accelerating business growth and helping them stay competitive. Additionally, digital marketing can reduce marketing costs and is considered more effective than conventional methods. Therefore, companies must adopt and actively conduct digital marketing campaigns to attract new customers, especially millennials or modern audiences. E-marketing is an effort by companies to promote their products and services and build relationships with customers through the internet. This form of marketing essentially connects various public websites on a massive network, forming a global information hub (Kotler & Keller, 2016).

The American Marketing Association (AMA) defines digital marketing as activities, institutions, and processes facilitated by digital technologies to create, communicate, and deliver value to consumers and other stakeholders (Kannan & Li, 2016). According to Wardhana (2015), digital marketing involves marketing activities that use internet-based media. Thus, any marketing campaign that utilizes internet media, whether through websites, social media, or mobile applications, can be categorized as digital marketing. Similarly, Prabowo (2018) explains that digital marketing helps companies promote and market their products and services. It also opens up new markets previously inaccessible due to limitations in time, communication methods, or distance. The shift to digital

marketing has driven changes in consumer behavior, requiring companies to adapt to these changes and undergo digital transformation to remain competitive. Companies must also know how to maintain customer loyalty.

Kotler & Keller (2016) define loyalty as a commitment made by consumers to repurchase a product or service they favor in the future, even when alternative options are available. Loyal consumers are likely to repeat their purchases despite the availability of competing alternatives. Long-term customer loyalty is vital for sustaining a business, and companies that can maintain it will reap significant benefits. Kotler & Keller (2016:164) further explain that acquiring new customers costs five times more than satisfying and retaining existing ones. This highlights the value of maintaining a loyal customer base, as it saves costs equivalent to acquiring five new customers. Loyal customers will continue to make repeat purchases without the need for additional advertising or marketing efforts. Loyalty is closely linked to customer satisfaction, which is influenced by positive experiences with a company's products or services.

Customer satisfaction, according to Kotler & Keller (2016), is the feeling of pleasure or disappointment that consumers experience when comparing a product's perceived performance to their expectations. When expectations are met, consumers feel satisfied; when they are not, disappointment arises. For this reason, it is crucial for companies to maintain customer satisfaction, as it not only fosters loyalty but also encourages customers to voluntarily recommend the product or service to others. Companies must continuously measure customer satisfaction to obtain feedback that can improve product and service quality. One method to measure satisfaction is through a suggestion and complaint system (Kotler & Keller, 2016), allowing customers to express their opinions or complaints through accessible media like suggestion boxes, customer service hotlines, social media, or other digital platforms.

In today's digital age, information can spread rapidly through social media and online platforms. Dissatisfied customers can easily share their experiences, which can negatively impact a company's image. Conversely, satisfied customers are more likely to provide positive reviews and recommendations. The expansion of the internet and the rise of digital platforms have increased the number of internet users, which companies can leverage to reach new customers and expand their business operations. The increasing internet usage in Indonesia has led to the integration of digital services in various sectors, including banking, where internet banking services have become common.

Bank Negara Indonesia (BNI), one of Indonesia's largest state-owned banks (IDX: BBNI), has adopted technology to enhance its services, particularly through mobile banking. BNI's mobile banking service competes with similar offerings from other banks, such as Bank BCA, Bank Mandiri, and Bank BRI. Although the mobile banking services across these banks are similar, each bank has its unique appeal to attract customers. BNI's mobile banking has seen significant growth in user numbers, but the rate of growth has slowed, possibly due to service quality issues. Table 1.2 illustrates the growth of BNI mobile banking users from 2018 to 2023, with the most significant growth in 2021.

BNI's mobile banking service offers a wide range of features, including balance inquiries, transfers, bill payments, and QRIS payments, which allow customers to make cashless transactions by scanning a QR code. Despite these conveniences, BNI mobile banking users have expressed dissatisfaction, particularly on social media platforms like X

(formerly Twitter). Common complaints include QRIS errors, server instability, complicated registration processes, and frequent logouts. These issues highlight the importance of ensuring that mobile banking services are user-friendly, secure, and reliable.

According to research by Parera & Susanti (2021), as customers shift to digital banking, banks must ensure their mobile banking services are easy to use, secure, and efficient to enhance customer satisfaction and loyalty. Satisfied customers are likely to leave positive reviews, while dissatisfied customers may rate the service poorly. Based on Play Store reviews, BNI mobile banking received lower-than-perfect ratings from 36.46% of users, citing issues such as system errors and unreliable features. Table 1.4 provides a breakdown of these ratings, showing that while 63.5% of users were satisfied, a significant proportion expressed dissatisfaction.

Customer loyalty can be influenced by their satisfaction with mobile banking features. Research by Casaló et al. (2008) suggests that evaluating mobile banking experiences can indicate user satisfaction levels. Positive experiences with mobile banking can lead to repeated use and customer loyalty. However, banks must address any issues raised by users to improve service quality and increase customer retention. This research aims to investigate the influence of usability on customer satisfaction and loyalty among BNI Mobile Banking users in Bandar Lampung. Specifically, the study examines whether usability positively impacts both customer satisfaction and loyalty, and whether satisfaction acts as a mediating variable between usability and customer loyalty. The findings are expected to benefit BNI by providing insights to enhance the mobile banking service quality, ensuring customer complaints are addressed to improve loyalty and increase users. Academically, the research contributes to the literature on mobile application usability, satisfaction, and loyalty, while offering valuable information for future research. It also enhances the researcher's understanding of digital marketing concepts in the banking sector.

LITERATURE REVIEW

Marketing Management

Marketing management is crucial for a company's success, as effective marketing strategies enhance customer satisfaction and loyalty. According to the American Marketing Association (AMA), marketing involves processes to create, communicate, and deliver value to customers (Kotler & Keller, 2016). Drucker emphasizes that understanding consumer needs is essential for boosting sales. Marketing strategy includes segmenting markets, targeting specific segments, and differentiating products to meet consumer demands (Kotler & Armstrong, 2016). Furthermore, the marketing mix—comprising product, price, place, promotion, physical evidence, people, and process—helps companies create value and achieve business goals (Kotler & Armstrong, 2016).

Internet Marketing

Internet marketing, also known as interactive marketing, is a method that enables marketers to communicate and sell products or services through online platforms, such as websites, mobile apps, social media, blogs, and emails. El-Gohary (2010) views

internet marketing as a modern business practice for promoting goods, services, and ideas via the internet, benefiting both marketers and consumers. This method reduces marketing costs by eliminating the need for physical stores or printed catalogs (Kotler & Keller, 2016). Overall, internet marketing enhances efficiency, improves customer engagement, and fosters loyalty by better understanding consumer needs (Kotler & Keller, 2016).

Consumer Behavior

Consumer behavior refers to how individuals, groups, and organizations select, buy, and use products, services, or ideas to satisfy their needs and wants (Kotler & Armstrong, 2016). In digital marketing, understanding consumer behavior is crucial for developing effective strategies that align with evolving consumer demands. As technology advances, consumers shift from conventional to digital marketing channels, requiring businesses to adapt their approaches. Companies that successfully understand and meet consumer needs can gain a competitive advantage, leading to higher satisfaction and loyalty, whereas those that fail may struggle to retain customers (Schiffman & Kanuk, 2012; Tjiptono & Diana, 2012).

Decision Making Process

The decision-making process for consumers consists of five stages, beginning with problem recognition, where internal or external stimuli trigger the need for a product or service (Kotler & Keller, 2016). This leads to information search, either actively or passively, to evaluate available options. Consumers then compare alternatives based on personal criteria before making a purchase decision, involving various factors such as product type and payment methods. The final stage, post-purchase behavior, determines whether consumers feel satisfied or dissatisfied, influencing their loyalty and future purchases (Kotler & Keller, 2016). Understanding this process helps marketers refine their strategies effectively.

Usability

Usability refers to the extent to which an individual believes that utilizing a particular system will enhance their performance (Davis, 1989). It encompasses aspects such as how easily a system can be learned, understood, and operated by users (Nielsen, 2012). ISO 9241 defines usability as a product's capacity to help users achieve their objectives efficiently and satisfactorily. In mobile banking, usability is crucial, influencing user adoption and continued usage. When users find the system easy to learn, navigate, and control, it enhances satisfaction, loyalty, and overall experience (Casaló et al., 2008).

Satisfaction

Customer satisfaction is a key factor in business success, defined as an overall evaluation based on cumulative experiences with a product or service over time (Fornell et al., 1996). It is influenced by product features, perceived quality, emotional responses, and customer perceptions of fairness (Zeithaml & Bitner, 2003). High customer satisfaction leads to benefits such as loyalty, extended product life cycles, and positive word-of-mouth (Tao, 2014). As satisfaction is dynamic and influenced by customer expectations,

businesses must continuously improve to retain loyal customers (Lovelock & Wirtz, 2007). Therefore, maintaining customer satisfaction is vital for business growth.

Loyalty

Customer loyalty is vital for business success, both online and offline, requiring an understanding of customer perceptions to enhance service quality (Parasuraman et al., 2005). Service quality impacts satisfaction and purchase intentions (Hsu et al., 2012), with satisfaction fostering loyalty (Anderson & Srinivasan, 2003). Loyal customers, especially in mobile banking, indicate high satisfaction. Thoms and Tobe (2012) highlight that retaining existing customers is more cost-effective than acquiring new ones. Effective loyalty strategies involve addressing customer needs and preferences, as outlined by Gremler and Brown's (1999) loyalty types. Kotler and Keller (2016) stress the importance of creating superior products and services and incorporating customer feedback.

RESEARCH METHOD

Type of Research

This study employs explanatory research with a quantitative approach to examine the relationships between variables (Sugiyono, 2017). It aims to assess the impact of independent variables on both mediating and dependent variables and determine which factors are most influential. The choice of explanatory research aligns with testing hypotheses regarding the effects of usability on satisfaction and user loyalty in BNI mobile banking in Bandar Lampung.

Population and Sample

The research object is the usability of BNI mobile banking, acting as the independent variable, with user satisfaction as the mediating variable and user loyalty as the dependent variable (Supriyati, 2012). The population consists of BNI mobile banking users in Bandar Lampung. Purposive sampling was used to select 170 respondents, based on Ferguson and Cox's (1993) minimum sample size and Malhotra's (2006) recommendation of five to ten times the number of indicators. This sample aims to evaluate the impact of mobile banking features on user satisfaction and loyalty.

Data Source

Data for this study comprises primary and secondary sources. Primary data is collected via questionnaires filled out by BNI mobile banking users. Secondary data, as defined by Kuncoro (2013), is sourced from external publications, specifically user growth reports from ekbis.sindonews.com. Data collection involves using Likert scale questionnaires to assess respondent attitudes and perceptions regarding mobile banking features.

Operational Definition of Variables

Operational definitions of variables specify how constructs are measured, facilitating replication in future research (Narimawati, 2010). This study utilizes operational definitions validated and tested for reliability in prior research (Casaló et al., 2008), while also conducting validity and reliability tests with 170 respondents.

Validity and Reliability Test

Validity testing determines whether questionnaire items accurately measure the intended constructs. This study employs factor analysis, with KMO values and Bartlett's test of sphericity indicating validity if $KMO > 0.5$ and factors loadings exceed 0.5 (Ghozali, 2018). Reliability is assessed using Cronbach's Alpha, with values above 0.60 indicating reliability (Ghozali, 2018).

Data Analysis and Mediation Test

Data analysis uses path analysis to assess both direct and indirect effects of usability on loyalty, mediated by satisfaction (Sugiyono, 2017). Path coefficients are determined through regression equations. Sobel test evaluates the mediation effect of satisfaction, with significant mediation indicated by a t-value greater than 1.96 (Ghozali, 2018).

RESULTS AND DISCUSSIONS

User Characteristics

The study on BNI Mobile Banking users in Bandar Lampung reveals several key demographic characteristics. The sample consists of 170 respondents, predominantly female (62.4%), with a significant representation in the 27-36 age group (49.4%), aligning with the digital nativity of millennials (Lampiran 4, 2024). Income distribution shows that most users earn between Rp 5,000,000 and Rp 10,000,000 (47.6%), reflecting a middle-income bracket (Lampiran 4, 2024). In terms of occupation, the majority are employed in private or state-owned enterprises (45.3%), suggesting that mobile banking appeals to professionals seeking efficiency (Lampiran 4, 2024). These characteristics indicate that BNI Mobile Banking is particularly popular among young, middle-income professionals who value the convenience of digital financial services.

Frequency Distribution Overview

In statistical analysis, frequency distribution transforms raw data into clear percentages, facilitating a deeper understanding of the variables under study. This research utilized a Likert scale ranging from 1 to 5, analyzing responses from 170 BNI Mobile Banking users in Bandar Lampung. The data was evaluated to provide a comprehensive overview of user perceptions regarding the application's usability, satisfaction, and loyalty. The analysis of usability revealed that users generally rated the application positively, with mean scores exceeding 4.0 for most statements. However, the item "Ease of finding information" had the lowest mean score of 4.24, reflecting occasional difficulties reported by users, such as issues with accessing information during system maintenance. In contrast, the statement "Flexibility and usability at any time" received the highest mean score of 4.49, indicating strong user satisfaction with the application's accessibility and adaptability. User satisfaction was also high, with mean scores around 4.3, suggesting that users are generally pleased with the application's functionality and features. Regarding loyalty, users showed a strong commitment to continue using the application and recommending it to others, with a mean score of 4.35. This reflects a high level of endorsement and ongoing user engagement with BNI Mobile Banking, despite minor areas needing improvement.

Path Analysis

Equation Model 1

Path analysis was utilized in this study to evaluate both direct and indirect effects, as well as to clarify causal relationships based on existing theories or equations. The analysis, performed using SPSS version 27, revealed a significant effect of usability on loyalty, with a p-value of 0.000, indicating significance at the 95% confidence level. The regression coefficient for usability was 0.246, suggesting a positive relationship; a 100-unit increase in usability correlates with a 24.6-unit increase in loyalty. The regression model was represented as $Y = 2.089 + 0.584X$, where Y is loyalty and X is usability. The R-squared value of 0.341 indicates that 34.1% of the variance in loyalty is explained by usability, suggesting a moderate model fit and leaving 65.9% of the variance attributed to other factors.

Equation Model 2

Model Equation 2 was analyzed to assess the direct impact of usability on satisfaction. The results, obtained using SPSS, indicated a significant effect with a p-value of 0.000, confirming that usability significantly influences satisfaction at the 95% confidence level. The positive regression coefficient of 0.398 suggests that a 100-unit increase in ease-of-use results in a 39.8-unit increase in satisfaction. The regression equation derived from this model is $Y = -0.337 + 0.654X$, where Y represents satisfaction and X represents usability (Lampiran 6, 2024). The R-squared value of 0.428 implies that 42.8% of the variance in satisfaction is explained by usability, indicating a moderate fit of the model. The R value of 0.654 demonstrates a moderate positive correlation between the variables.

Equation Model 3

Model Equation 3 evaluates the direct impact of satisfaction on loyalty. The analysis, conducted with SPSS, reveals a significant effect with a p-value of 0.000, indicating that satisfaction significantly affects loyalty at the 95% confidence level. The positive regression coefficient of 0.645 suggests that for every 100-unit increase in satisfaction, loyalty increases by 64.5 units. The regression equation derived from this model is $Y = 5.219 + 0.645X$, where Y represents loyalty and X represents satisfaction. The R-squared value of 0.416 implies that 41.6% of the variance in loyalty is explained by satisfaction, indicating a moderate model fit. The R value of 0.645 shows a moderate positive correlation between satisfaction and loyalty.

Equation Model 4

Model Equation 4 assesses the direct impact of both usability and satisfaction on loyalty. The significance level is 0.000, which is below the 0.05 threshold, indicating that both variables significantly affect loyalty at the 95% confidence level. The regression equation is expressed as $Y = 2.196 + 0.283X_1 + 0.460X_2$, where Y represents loyalty, X_1 is usability, and X_2 is satisfaction. The coefficient for usability is 0.119, suggesting that for every 100-unit increase in usability, loyalty increases by 11.9 units. The coefficient for satisfaction is 0.319, meaning a 100-unit increase in satisfaction leads to a 31.9-unit increase in loyalty. The R-squared value of 0.462 indicates that 46.2% of the variance in loyalty is explained by usability and satisfaction combined, reflecting a moderate to strong model fit.

Based on the R-squared coefficients from each model, the correlation matrix shows that the relationship between usability and loyalty has an R-squared value of 0.341. However, when adding satisfaction as a variable and examining its impact on loyalty, the R-squared value increases to 0.462, as indicated in figure 1.



Figure 1. Path Analysis Result Model

According to Fairchild et al. (2009), this increase in R-squared suggests mediation, where the inclusion of satisfaction enhances the explanatory power of usability on loyalty. Figure 1 illustrates the results of the path analysis. It presents the regression coefficients and their standard errors for each relationship: the effect of the independent variable (usability) on the mediator (satisfaction), and the effect of the mediator on the dependent variable (loyalty). The standardized coefficients and standard errors are used to calculate the indirect effect through the Sobel test, which helps in understanding the mediation effect in this study.

Mediation Test

In this study, the Sobel test was employed to evaluate the indirect effect of satisfaction as a mediating variable between usability and loyalty. The calculation showed a Sobel test value of 0.02296, with a t-value of 7.748, which exceeds the critical value of 1.96 at a 5% significance level (Sugiyono, 2017). This indicates that satisfaction significantly mediates the relationship between usability and loyalty. The findings reveal that satisfaction serves as a partial mediator, meaning it influences the strength and direction of the relationship between usability and loyalty. Partial mediation suggests that while usability affects loyalty directly and indirectly through satisfaction, both pathways are significant (Sugiyono, 2017).

Discussion

The effect of usability on loyalty

The analysis of the impact of usability on loyalty indicates a significant positive relationship. The empirical results reveal a t-value of 9.321, exceeding the critical t-value of 1.654, and a significance level of 0.000, which is below the 0.05 threshold at a 95% confidence level. This evidence confirms that usability significantly affects user loyalty to BNI Mobile Banking. Users appreciate the convenience of managing their finances efficiently without physical bank visits, which enhances their likelihood of continued app use. The standardized coefficient of 0.584 further illustrates that a 100-point increase

in perceived usability correlates with a 58.4-point increase in loyalty. These findings align with Parera and Susanti's (2021) research, which underscores the substantial impact of usability on user loyalty.

The effect of usability on satisfaction

The analysis of usability's impact on satisfaction confirms a significant positive relationship. With a t-value of 11.207, surpassing the critical t-value of 1.654, and a significance level of 0.000 ($p < 0.05$), it is evident that usability significantly affects user satisfaction with BNI Mobile Banking. The standardized coefficient of 0.654 indicates that a 100-point increase in usability correlates with a 65.4-point increase in satisfaction. The adjusted R^2 of 0.424 reveals that 42.4% of the variance in user satisfaction can be explained by usability, aligning with Casaló et al. (2008) and Parera and Susanti (2021), who both found that usability positively influences user satisfaction.

The effect of satisfaction on loyalty

The analysis confirms a significant positive effect of satisfaction on loyalty, with a t-value of 10.949 exceeding the critical t-value of 1.654 and a significance level of 0.000 ($p < 0.05$). This indicates that satisfaction significantly influences loyalty among BNI Mobile Banking users, validating hypothesis (H3). The standardized coefficient of 0.645 shows that a 100-point increase in satisfaction results in a 64.5-point increase in loyalty. Satisfied users are likely to continue using BNI Mobile Banking due to its perceived ability to meet their needs effectively, even in the presence of alternatives. These findings align with Parera and Susanti (2021) and Johannes et al. (2018), both of whom demonstrated that customer satisfaction positively impacts user loyalty.

Satisfaction can mediate between usability and loyalty

The analysis examined the mediating role of satisfaction between usability and loyalty, validating hypothesis (H4). The Sobel test, with a t-value of 7.748 exceeding the critical t-value of 1.654 and a significance level of 0.0004 ($p < 0.05$), confirms that satisfaction mediates the relationship between usability and loyalty. According to Sugiyono (2017), path coefficients greater than 0.05 indicate a significant direct effect. The path coefficients from models 1 through 4, ranging from 0.283 to 0.654, demonstrate that satisfaction significantly mediates the effect of usability on loyalty. This finding corroborates prior research by Parera and Susanti (2021) and Casaló et al. (2008), highlighting that improved usability leads to greater satisfaction, which in turn enhances user loyalty. Therefore, enhancing usability features in the BNI Mobile Banking app is crucial for fostering customer satisfaction and loyalty.

CONCLUSIONS AND SUGGESTIONS

Conclusions

The analysis reveals that usability significantly and positively impacts user loyalty to BNI Mobile Banking. Improved usability directly enhances users' commitment to repeatedly using the platform. Additionally, usability also positively affects user satisfaction, indicating that easier navigation and functionality lead to higher user satisfaction. User satisfaction, in turn, has a substantial positive effect on loyalty, showing that satisfied users are more likely to remain loyal. Furthermore, satisfaction acts as a significant mediator, positively influencing the relationship between usability

and user loyalty. Increased usability enhances satisfaction, which subsequently boosts user loyalty to BNI Mobile Banking.

Suggestions

For PT Bank Negara Indonesia (Persero) Tbk, it is crucial to address the lowest mean scores related to the ease of finding necessary information within the mobile banking app. Providing advance notice of system maintenance can prevent user frustration and ensure they complete transactions before outages. Maintaining high usability is essential for user satisfaction. Regarding satisfaction, the company should address user complaints and improve aspects of the app that lead to frequent issues. To enhance loyalty, the company must continue to support high usability and promptly resolve user complaints. Future research should consider including additional variables, such as perceived usefulness from the Technology Acceptance Model (TAM), to explore their direct and indirect effects on satisfaction and loyalty, providing deeper insights into these relationships.

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