

The Effect of E-Service Quality on E-Customer Loyalty with E Customer Satisfaction as a Mediation Variable Case Study on the My BCA Mobile Banking Application

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ABSTRACT

Nowadays, as competition between banks intensifies, they must provide the best service to each client in order to grow and strengthen their competitive advantage. This research investigates the impact of e-service quality on e-customer loyalty, with e-customer satisfaction as a mediating variable, specifically focusing on the My BCA Mobile Banking Application. The study aims to analyze how various dimensions of e-service quality such as site organization, reliability, responsiveness, user-friendliness, personal needs, and efficiency affect customer satisfaction and loyalty. The study uses a quantitative research method, with data collected from 385 active users of the My BCA mobile banking application in Indonesia. The findings reveal that e-service quality significantly influences e-customer satisfaction, which in turn positively impacts e-customer loyalty. Among the six dimensions of e-service quality, site organization, user-friendliness, personal needs, and efficiency show significant effects on both customer satisfaction and loyalty. The study emphasizes the importance of enhancing service quality to improve customer experience and foster loyalty in the competitive banking sector.

KEYWORDS



-Service Quality, E-Customer Loyalty, E-Customer Satisfaction, Mobile Banking, My BCA, Customer Experience

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INTRODUCTION

Nowadays, the competition between banks is getting fiercer every day. Banks must be able to provide the best service to each of their clients if they want to grow and improve their advantage. Customers must be satisfied with the bank's services and products. Based on Indonesia's top brands, there are 10 (Debora & Widiati, 2023; Muhammad Yusram et al., 2020; Oktapiani et al., 2020; Pratama & Rakhmadani, 2022; Sahroni et al., 2022) most popular mobile banking that are often used by people in Indonesia. Figure 1.5 shows that BCA's mobile banking is ranked first with a percentage of 52.2%. This percentage is very far adrift compared to other competitors such as BRI's BRIMO with a percentage of 18.5%, Bank Mandiri's Livin by Mandiri which reaches 11.5% and BNI Mobile with a percentage of 9.4% and other mobile banking whose percentage is less than 10%. This also shows that BCA's mobile banking, especially myBCA, is in great demand in the community as well as becoming a mobile banking service that is top of mind awareness in the minds of consumers. (Top Brand, 2022)

However, based on Figure 1.6, according to a survey conducted by the Bank Service Excellence Monitor in 2024 regarding the best mobile banking performance in Indonesia, BCA only occupies the 5th position with a percentage of 93.34%, far adrift compared to its competitors. This shows that even though BCA is the top mind and is a popular mobile banking bank in Indonesia, in terms of performance, BCA is still far behind compared to its competitors. From the survey, it is also seen that the chat bots owned by BCA are still far behind mobile banking from other banks, which means that BCA still needs to improve the services provided. My-BCA still occupies the bottom position in terms of the best mobile banking performance due to the many obstacles that occur every year.

Service quality is an important dimension that affects customer satisfaction in the banking industry. According to Iskamto (2015), customer satisfaction is the result of a thorough

assessment of the services provided, which can only be measured after customers have experienced the service process firsthand. Good service quality not only improves customer satisfaction but also contributes to the bank's overall performance. Service (Zhou et al., 2021)(Khatoon et al., 2020).quality must also help customers effectively, and if they don't, it will be considered bad. This suggests that dissatisfaction can arise when the service does not meet the user's expectations (Putri & Purnama, 2024).

A previous study from the BCA Dhamara et. al. (2024)mobile application was conducted from April 22, 2024 to May 28, 2024, showing that the reviews obtained were dominated by negative sentiment. This indicates that BCA mobile application users are still complaining about the quality of the application's service and causing user dissatisfaction with the myBCA application. Negative sentiment often includes verification issues, connection difficulties, and new policies that are rated unfavorable. In addition, there was also a study on (Gamma et al., 2024)(Rizky Pratama et al., n.d.) BCA's mobile banking application, BCA mobile, which produced negative sentiment more dominant than positive sentiment with a comparison of 1,672 negative reviews out of a total of 1,937 review data with the main complaints related to face verification difficulties, network constraints, and inadequate features.

The quality of service has a very important role in every culture, as it becomes the basis for how customers view online banking and, ultimately, influences the way they interact and behave towards online (Raza et al., 2020) services. According to the availability of internet banking services and their ease of access, it will increase customer satisfaction. As with other internet banking services, consumers tend to be more satisfied with the banking sites and services they receive. Great customer satisfaction usually occurs because customers have a pleasant experience. They get clear information, fast and timely service, and ease of interaction. In addition, customers are also taught how to use the product well, feel satisfied with the electronic services (Alarifi & Husain (2023)e-service) offered, and like the service. All e-services provided are also in accordance with customer expectations. (Alarifi & Husain, 2023)

Due to the increasing adoption rate of e-banking systems, banks face stiff competition in attracting and retaining customers through their e-banking platforms. According to providing high-quality Shankar & Jebarajakirthy (2019)e-banking services is considered a basic strategy to gain a competitive advantage in this service platform. Basically, improving the quality of e-banking services is seen as the best strategic tool to keep customers loyal to the e-banking system. Based on previous research, it is stated that all dimensions of (Raza et al., 2020)e-service quality consisting of site organization, reliability, responsiveness, user friendliness, personal need, and efficiency have a significant positive influence on e-customer satisfaction. In addition, this is also supported by research that states that high-quality electronic services (Ahmed et al. (2021)e-services) can increase customer satisfaction, keep customers loyal, and build their loyalty. Satisfied customers can also attract more new customers and strengthen the company's image.

Based on the phenomenon that has been explained, it can be concluded that BCA's mobile banking service has the highest transaction frequency compared to other mobile banking services in Indonesia. However, despite having a dominant transaction volume, the results of a survey on the best mobile banking performance in Indonesia show that BCA only occupies the fifth position. Furthermore, a number of complaints from users emerged that highlighted the lack of optimal quality of services provided, both in terms of system reliability and application response speed. This condition raises questions about the extent to which the e-service quality provided by BCA's mobile banking can affect customer satisfaction and ultimately have an impact on customer loyalty.

Thus, this study is important to examine empirically how the quality of mobile banking services affects customer satisfaction and loyalty, as well as to evaluate the role of customer

satisfaction as a mediating variable in the relationship. This research is expected to contribute both theoretically and practically in order to improve the quality of digital banking services, especially in BCA's mobile banking services.

This study aims to examine the influence of e-service quality dimensions—including site organization, reliability, responsiveness, user friendliness, personal need, and efficiency—on e-customer satisfaction and e-customer loyalty among users of the myBCA mobile banking application. In addition, the study seeks to evaluate the mediating role of e-customer satisfaction in the relationship between each e-service quality dimension and customer loyalty. The results of this study are expected to contribute theoretically by enriching the literature on digital service quality and customer behavior in mobile banking contexts, particularly within the Indonesian market. Practically, this research is beneficial for BCA and other financial institutions by identifying key service quality attributes that impact user satisfaction and loyalty, thereby enabling developers and decision-makers to refine mobile application features and improve digital customer experiences. Ultimately, the findings are intended to support efforts in enhancing competitiveness and customer retention in an increasingly digitalized banking environment.

RESEARCH METHOD

This study used a quantitative approach, employing survey methods to collect and analyze data from individual users of the *myBCA* Mobile application. According to Indrawati (2015:117), at least intervention is research that is carried out without any data manipulation in any form that will later be used for research. The research was classified as causal research, aiming to examine the influence of e-service quality on e-customer satisfaction and its subsequent impact on e-customer loyalty. According to Indrawati (2015:117), causal research is research that is carried out on an experimental or non-experimental basis to find out the causal relationship of a problem. The study was conducted in a non-contrived, natural setting with minimal researcher intervention, ensuring that the data reflected real user experiences. Data collection was cross-sectional, meaning it was gathered at a single point in time to answer the research questions.

The research process followed established stages to ensure systematic investigation, as outlined by relevant literature. According to Indrawati (2015:164), the sample is a member of the population that is selected to be involved in the research, either to be observed, treated, or asked for an opinion on what is being researched. By focusing on the individual as the unit of analysis and using a representative sample, the study sought to provide valid and reliable insights into the relationships between e-service quality, satisfaction, and loyalty among *myBCA* Mobile application users. The findings aimed to support the development of strategies for improving service quality and fostering customer loyalty in the competitive banking sector.

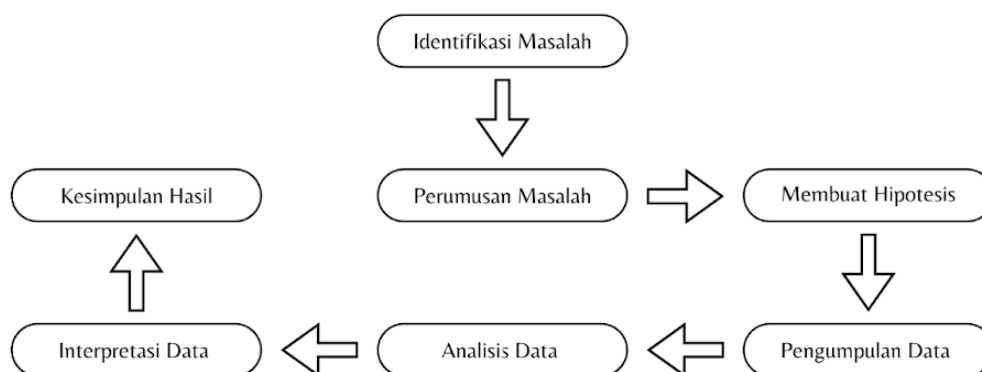


Figure 1. Research Steps

Source : Bougie & Sekaran (2020)

Based on Figure 1, the explanation of the flow of this research stage is as follows:

- a. The initial stage of this study is to identify problems that occur due to inconsistencies between the actual and expected events. The phenomenon in this study is related to the use of mobile banking in Indonesia. After discovering the phenomenon, the researcher chose the object of the banking industry as the object of this research. Then the researcher searches for information and supporting data related to the research object.
- b. In the second stage, the researcher formulates the problem by making questions based on the phenomena and problems found in the previous stage. These questions serve to provide direction to researchers in conducting research.
- c. The third stage is to determine the theoretical foundation. At this stage, the researcher conducts a review related to supporting theories related to the research variables. In this case, the researcher needs to read theoretical references and previous research that are relevant to the research problem. The research topics in this study are related to e-service quality, e-customer satisfaction, e-customer loyalty, and mobile banking.
- d. The fourth stage is the formulation of the hypothesis. At this stage, the researcher gets a provisional answer from the results of the previous theoretical review.
- e. The fifth stage is to develop the instrument. To produce data carefully, it is necessary to develop an instrument. The research instrument used in this study is a questionnaire. The questionnaire was made through Google Form, then the researcher distributed the questionnaire to respondents through social media such as Instagram, Whatsapp, Line, and Telegram.
- f. The sixth stage is to determine the population and sample. The population in this study is users of the myBCA Mobile application in Indonesia. Meanwhile, 45 to determine the number of samples in this study used a non-probability sampling technique by means of purposive sampling.
- g. The seventh stage is instrument testing. At this stage, the research instrument used must be tested valid and reliable, so the researcher must first conduct a validity and reliability test before using the research instrument.
- h. The eighth stage is to conduct data analysis. After the instrument used was tested valid and reliable, the researcher collected data and processed the data using Structural Equation Modeling (SEM) analysis techniques using Smart-PLS. The data processing serves to draw conclusions and suggestions from this study through the data that has been collected.

- i. The ninth or final stage of this research is to draw conclusions and suggestions. The conclusion contains a brief answer to each problem formulation based on the data that has been collected and the results of the hypothesis that has been tested. After drawing conclusions, the researcher then provides suggestions that can be used as input for the myBCA Mobile application and the next researcher.

The population in this study is users of the myBCA Mobile application in general, especially in Indonesia. Because BCA is a *mobile banking* listed on the stock exchange, of course all information will be listed in BCA's annual report. However, after being searched in BCA's annual report for 2016 - 2021, the number of BCA Mobile users was not found. Likewise, after being asked by the researcher to *BCA Customer Service staff* on February 17, 2022, they could not convey the number of myBCA Mobile users. Therefore, the population size of this study is not clearly known.

The sampling method used in this study is by *purposive sampling*. The sample criteria in this study are: 1) myBCA Mobile app users in Indonesia; and 2) Have made transactions through the myBCA Mobile application more than 3 times

By using a 95% confidence rate, a 5% error rate, and based on the values of table Z, then the critical value set is 1.65(). So the calculation of the number of samples in this study is:

$$n = \frac{N}{1 + N \cdot e^2}$$

Information:

n: Required sample size

N: Population size

e: Fault tolerance level or *margin of error* (usually expressed in decimals, e.g. 5%)

In this study, the sample size was calculated to ensure that the results of the study had a confidence level of 95% with a *margin of error* of 5%. This study aims to find out the percentage of *myBCA* application users who are satisfied with the services provided. Thus, the parameters used in the calculation are as follows:

1. **Confidence level:** 95% (indicates margin of error $e=0.05$).
2. **Population (N):** Not yet specified. For example, let's assume there are **10,000 app users** (you can replace this number with the actual population value).

Through the formula above, the minimum number of samples is obtained as follows:

$$n = \frac{N}{1 + N \cdot e^2}$$

Substitution of known values (N = 10,000 and e = 0.05)

$$n = \frac{10,000}{1 + 10,000 \cdot (0.05)^2}$$

$$n = \frac{10,000}{1 + 10,000 \cdot (0.0025)}$$

$$n = \frac{10,000}{1 + 25}$$

$$n = \frac{10,000}{26} \approx 384.62$$

After the calculation, the result was obtained that the minimum sample size required was **385 respondents** (rounded up).

In this study, the researcher developed a structured questionnaire using Google Form and distributed it online via social media platforms such as WhatsApp, Line, Instagram, and Telegram to effectively reach Generation Z users of the *myBCA* mobile banking application. Google Form was chosen for its efficiency in eliminating printing costs, speeding up

distribution, and enabling automatic data compilation and analysis, as supported by Batubara (2016). The questionnaire included closed-ended items measured on a 5-point Likert scale, covering variables like site organization, reliability, responsiveness, user-friendliness, personal need, efficiency, e-customer satisfaction, and e-customer loyalty. A pilot test was conducted to ensure clarity, and the collected data was processed for statistical analysis using SmartPLS and SPSS.

RESULTS AND DISCUSSION

Research Results

This subchapter presents a descriptive explanation of the results of the research that focuses on respondents' perception of each variable used in this study, namely *e-service quality* as an independent variable, *e-customer loyalty* as a dependent variable, and *e-customer satisfaction* as a mediating variable. This description is based on data obtained from the questionnaire that has been distributed to users of the MyBCA mobile banking application. Each variable is described based on its constituent indicators, which are measured using the Likert scale. The collected data is then analyzed to determine the level of user perception of *e-service quality*, *e-customer satisfaction*, and *e-customer loyalty*. The following explanation aims to provide an initial overview of the respondents' answer tendencies before further quantitative analysis is carried out through validity, reliability, and structural model testing.

Descriptive Analysis

Descriptive analysis is used to describe and summarize data through basic statistical measures such as mean values. This method makes it easier to present the basic characteristics of one or more variables in a dataset, thus providing a clear picture of the central tendencies and distribution of the data. The descriptive analysis in this study was conducted to present and interpret the responses of 385 respondents to variables X (*E-Service Quality*), variable Z (*E-Customer Satisfaction*), and variable Y (*E-Customer Loyalty*) in users of the MyBCA mobile banking application. To effectively summarize the data, this analysis uses a frequency distribution table that displays the number of statements in the questionnaire, respondents' responses, total number of responses, and scores obtained. This score is used to categorize the tendency of respondents' perception of each of the variables studied. The results of this descriptive analysis are the basis for understanding users' general views on electronic service quality, electronic customer satisfaction, and electronic customer loyalty before further testing is carried out through inferential analysis and structural models (Zulfikar et al., 2024).

Descriptive Analysis of *E-Service Quality Variables*

To determine the respondents' perception of *e-service quality* in this study, data was collected through the distribution of questionnaires to 385 users of the MyBCA mobile banking application. Respondents are individuals who actively use the application for various banking transactions. The following are the responses of respondents regarding their perception of the *e-service quality* provided by the MyBCA application.

Respondents' perception of the *E-Service Quality* variable on the myBCA mobile banking application showed excellent results overall. The first statement, "I find the appearance of the myBCA application visually appealing", obtained the highest percentage of 91.94%, which is included in the very good category. The second and third statements, respectively "I find it easy with the navigation display of the myBCA application" and "I feel that transactions with the myBCA application are free from transaction failures", received the same percentage of 85.76%, which is also in the very good category. The fourth statement, "I feel that the myBCA application has an adequate security system", obtained a percentage of 90.23% (very good), showing the respondents' confidence in the security of the application. The fifth

statement, "I feel that the myBCA application is running smoothly", received 87.48%, which is included in the very good category.

Furthermore, the sixth statement, "I feel that myBCA application services can be accessed at any time", has a percentage of 84.15%, remaining in the very good category, even though it is close to the lower limit of the category. The seventh and eighth statements, namely "I feel that the myBCA application provides fast service" and "I feel that the myBCA application can always serve customer demands", obtained 87.27% and 91.27%, respectively, both of which are in the very good category. The ninth statement, "I feel that the myBCA application provides accurate information", obtained a score of 84.72% (very good). Then, the tenth statement, "I find the myBCA application easy to use (User-Friendly)", obtained 88.15%, and the eleventh statement, "I find the instructions from the myBCA application easy to understand", obtained 88.05%, both in the very good category. The twelfth statement, "I feel that the appearance of myBCA's User-Interface is running well", obtained 84.62%, which is still very good. However, the thirteenth statement, "I feel that the page on the myBCA application does not experience any problems (Crash/Error)", shows the lowest value of 83.16%, so it is in the good category.

The fourteenth statement, "I feel safe when making transactions on the myBCA application", obtained 86.18% (very good), followed by the fifteenth statement, "I feel that my financial transaction needs can be met using the myBCA application", with a percentage of 88.25% (very good). The sixteenth and seventeenth statements, namely "I feel that the myBCA application provides me with information that suits my needs" and "I feel that the myBCA application provides me with services that suit my needs", obtained 86.28% and 85.87% (very good) respectively. The last two statements, "I find it easy to find what I need in the myBCA app" and "I find it easy to browse the myBCA app", received high scores of 87.94% and 89.50%, which indicate user satisfaction with the ease of exploring the app. The last statement, "I feel that I can complete transactions quickly on the myBCA application", got a percentage of 84.93%, still in the very good category.

Based on the overall results of the *E-Service Quality* variable questionnaire on the myBCA application, the average score obtained was 87.06% of the total ideal, which shows that the quality of electronic services of the myBCA application is considered very good by the respondents. Here is a continuum line showing the position of the *E-Service Quality* variable category:

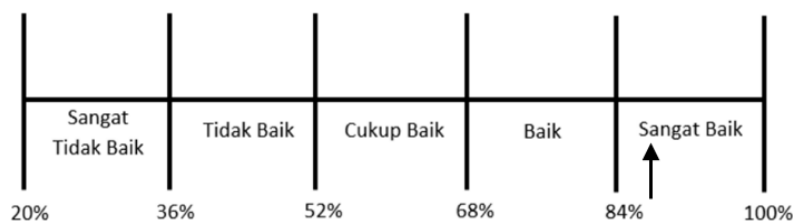


Figure 2. Variable Continuum Line *E-Service Quality*
 Source: Author's Processing (2025)

Descriptive Analysis of *E-Customer Loyalty Variables*

To evaluate respondents' perception of *e-customer loyalty*, this study used a questionnaire instrument filled out by 385 MyBCA application users. Electronic customer loyalty in this study refers to the tendency of users to continue using the application, recommend it to others, and demonstrate a long-term commitment to the services provided.

Each statement in the questionnaire is structured to describe aspects of customer loyalty in the context of digital services. A summary of respondents' responses regarding their loyalty to the MyBCA application.

Respondents' perception of the *E-Customer Loyalty* variable on the myBCA mobile banking application showed excellent results overall. The first statement, "I would recommend myBCA to others", obtained the highest percentage of 90.02%, which was included in the excellent category. This shows that most users are satisfied and willing to recommend this app to others, reflecting high loyalty. The second statement, "I will say positive things about myBCA to others", got a percentage of 84.15%, which is still in the very good category, despite being the lowest among the three statements submitted. This shows that even if users are quite satisfied, there is still room to improve the positive perception disseminated by users.

The third statement, "I would feel to continue using myBCA", obtained a percentage of 86.59%, also in the excellent category, which reflects the continued intention of users to continue using myBCA's services in the long term. Overall, the average score obtained for the *E-Customer Loyalty* variable was 86.90%, which shows that customer loyalty to the myBCA application is very good. These results show that the quality of services provided by myBCA has succeeded in building strong loyalty from its users. Here is a continuum line showing the position of the *E-Customer Loyalty* variable category:

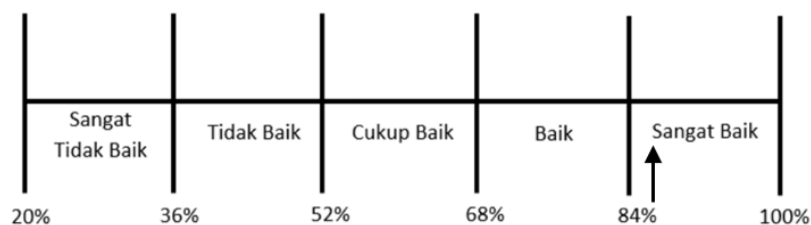


Figure 3. Variable Continuum Line *E-Customer Loyalty*
Source: Author's Processing (2025)

Descriptive Analysis of *Customer Satisfaction* Variables

To measure the level of *e-customer satisfaction*, data was obtained through a questionnaire distributed to 385 active users of the MyBCA mobile banking application. Electronic customer satisfaction in this context reflects the extent to which users' expectations of digital features, performance, and ease of service are met during the use of the application. The assessment is based on a number of statements that reflect the overall dimension of customer satisfaction. Respondents' responses regarding their satisfaction with the MyBCA application services.

Respondents' perception of the *E-Customer Satisfaction* variable for the myBCA mobile banking application showed very good results overall. The first statement, "I am satisfied with myBCA's services", obtained a percentage of 86.49%, which is included in the very good category, indicating that users are satisfied with the quality of service provided by the application. The second statement, "I am satisfied with the ease of the myBCA application", obtained the highest percentage of 89.03%, reflecting high satisfaction with the ease of use of the application, both in terms of navigation and functionality.

The third statement, "I am satisfied with the overall products and services of myBCA", obtained a percentage of 84.93%, which was also in the excellent category, although it was the lowest score among the three indicators. This shows that users are generally satisfied, but there are still opportunities to improve the overall quality of products and services. The average overall score of the *E-Customer Satisfaction* variable is 86.80%, which indicates that the level of customer satisfaction with the myBCA application is in the very good category. This high level of satisfaction can strengthen customer loyalty and show that the app has successfully

met its users' expectations. Here is a continuum line showing the position of the *Customer Satisfaction variable category*:

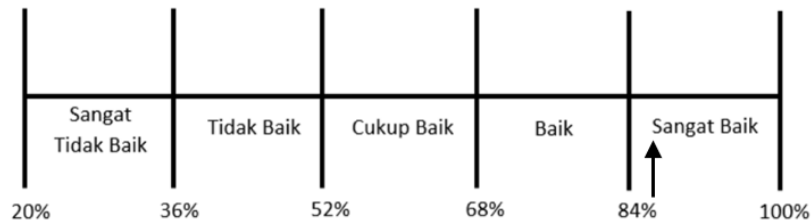


Figure 4. Variable Continuum Line Customer Satisfaction
Source: Author's Processing (2025)

Discussion

This study aims to examine the influence of *e-service quality* on *e-customer loyalty* with *e-customer satisfaction* as a mediating variable in MyBCA mobile banking application users. In this study, *e-service quality* plays a role as an independent variable, *e-customer loyalty* as a dependent variable, and *e-customer satisfaction* as a mediation variable. The research instrument consisted of 26 questionnaire statements, which included 20 items to measure *e-service quality*, 3 items for *e-customer satisfaction*, and 3 items for *e-customer loyalty*. A total of 385 respondents who are active users of the MyBCA application participated in filling out the questionnaire. This section will present and discuss the results of data analysis that have been described in the previous section.

Descriptive Analysis of E-Service Quality Variables

In the questionnaire filled out by 385 respondents, the perception of *E-Service Quality* in the myBCA mobile banking application generally showed excellent results. The statement with the highest percentage is "I find the appearance of the myBCA application visually appealing," with a value of 91.94%, which reflects the visual satisfaction of the user with the application interface. This was followed by the statements "I feel that the myBCA application can always serve customer demands" and "I find it easy to explore the myBCA application" which obtained scores of 91.27% and 89.50% respectively. These findings show that aesthetic aspects, service reliability, and ease of navigation are the main strengths of the myBCA application in providing a positive user experience.

On the other hand, the statement with the lowest score is "I feel that the page on the myBCA application is not experiencing any problems (Crash/Error)," with a percentage of 83.16%. Although it is still classified as good, this value indicates that there is a slight user dissatisfaction regarding the stability of the application. To improve overall user satisfaction, developers are advised to evaluate and further improve the technical performance of the application, especially in minimizing errors or crashes when users access various features. This step can support the positive perception that has been formed in other aspects.

Descriptive Analysis of E-Customer Loyalty Variables

Respondents' perception of the *E-Customer Loyalty* (ECL) variable in the myBCA mobile banking application showed excellent results overall. The statement with the highest percentage was "I would recommend myBCA to others," which obtained a score of 90.02%. These findings indicate that the majority of users have a high level of satisfaction and are willing to recommend the app, reflecting strong loyalty to the service.

The third statement, "I would feel to continue using myBCA," took second place with a percentage of 86.59%. These results illustrate a user's commitment to staying with the app in the long term, which reinforces the dimension of ongoing loyalty. Meanwhile, the second statement, "I will say positive things about myBCA to others," recorded the lowest score of

84.15%. Although it is still in the very good category, these results show that the positive perceptions actively propagated by users can still be improved. Therefore, it is recommended for myBCA to continue to build emotional relationships with users through interactive campaigns or customer testimonials, in order to create a greater incentive to share positive experiences voluntarily.

Descriptive Analysis of E-Customer Satisfaction Variables

Respondents' perception of the *E-Customer Satisfaction* (ECS) variable for the myBCA mobile banking application showed very good results overall. The statement with the highest percentage was "I am satisfied with the ease of the myBCA application," which obtained a score of 89.03%. These findings reflect that users highly appreciate the ease of use of the application, both in terms of navigation, interface design, and speed of access to features.

The first statement, "I am satisfied with myBCA's services," obtained a percentage of 86.49% and was in the very good category. These results show that users rate the services provided by the app to have met their expectations. Meanwhile, the third statement, "I am satisfied with the overall products and services of myBCA," obtained the lowest score of 84.93%, although it remained in the excellent category. These findings indicate that there is still room for improvement in improving overall products and services in order to improve overall satisfaction.

Overall, the average score obtained for the *E-Customer Satisfaction* variable was 86.80%. This figure shows that the majority of users are satisfied with their experience using the myBCA app, and this high level of satisfaction has the potential to drive increased customer loyalty in the future. To strengthen overall satisfaction, continuous development of service features and responsiveness to user needs can be the next strategic focus.

The Influence of Site Organization on E-Customer Satisfaction

Based on the results of the hypothesis test, it is known that *Site Organization* has a significant effect on *E-Customer Satisfaction*. This is indicated by a *t-statistic* value of 2.345 and a p-value of 0.019, which crosses the significance threshold of 1.65. Thus, the hypothesis is accepted. These results show that the better the organization and layout of the MyBCA mobile banking application, the higher the level of satisfaction felt by users. The clear and easy-to-navigate structure of the site contributes to increased customer comfort and satisfaction.

The Effect of Reliability on E-Customer Satisfaction

The results of the analysis showed that *Reliability* had a significant influence on *E-Customer Satisfaction*, with a *t-statistic* of 2.108 and a p-value of 0.035. Since the *t-statistical* value exceeds the critical limit, the hypothesis is accepted. This means that when the MyBCA application provides consistent and error-free services, the level of user satisfaction increases. Service reliability is an important aspect in shaping customer satisfaction in the digital environment. Reliability positively and significantly affects customer satisfaction. In tech-based services, it reflects the system's accuracy, transaction precision, and security, all of which enhance customer perceptions and satisfaction (Al Firdaus & Rachmawati, 2024).

The Effect of Responsiveness on E-Customer Satisfaction

Hypothesis testing showed that *Responsiveness* did not have a significant influence on *E-Customer Satisfaction*. The *t-statistic* value obtained was 1.442 with a p-value of 0.149, which was below the threshold of 1.65. Thus, the hypothesis is rejected. These results show that the speed or responsiveness of services in the context of the MyBCA application does not directly affect customer satisfaction. Likely, users prioritize other aspects of *e-service* over responsiveness.

The Influence of Userfriendliness on E-Customer Satisfaction

Based on the results of the analysis, *Userfriendliness* has a significant influence on *E-Customer Satisfaction*. This is evidenced by a *t-statistic* value of 2.049 and a p-value of 0.040.

Therefore, the hypothesis is accepted. This means that the easier and more intuitive the MyBCA application is used, the higher the level of user satisfaction. A user-friendly interface proves to be an important factor in improving customer experience and satisfaction in using *mobile banking services*.

The Influence of Personal Need on E-Customer Satisfaction

The test results showed that *Personal Need* had a significant effect on *E-Customer Satisfaction*, with a t-statistic value of 3.559 and a p-value of 0.000. Hypotheses accepted. This shows that the more the MyBCA application is able to meet the user's personal needs and preferences, the higher their satisfaction level. Service personalization is an important aspect in improving customer satisfaction digitally.

The Effect of Efficiency on E-Customer Satisfaction

Structural model analysis shows that *Efficiency* has a significant influence on *E-Customer Satisfaction*. This can be seen from the t-statistic value of 4.232 and the p-value of 0.000. Thus, the hypothesis is accepted. Efficiency in completing transactions quickly and easily through the MyBCA application is the main factor that increases customer satisfaction.

The Effect of E-Customer Satisfaction on E-Customer Loyalty

Based on the test results, it is known that *E-Customer Satisfaction* has a significant effect on *E-Customer Loyalty*, with a *t-statistic* value of 4.297 and a p-value of 0.000. Hypotheses accepted. These results indicate that customer satisfaction plays an important role in shaping user loyalty to the MyBCA application. When customers are satisfied, they are more likely to stick with the service, recommend it to others, and are less likely to switch to competitors. In research conducted by Iskanto et al. (2024), customer satisfaction was proven to have a positive and significant influence on customer loyalty. This means that the higher the level of satisfaction that customers feel, the more likely they are to remain loyal to the products or services offered.

In line with research by Nurdiana & Komara (2024) which highlights the importance of service quality in shaping customer loyalty in the digital era, the results of this study show that the higher the level of service quality provided by mobile banking services, taking into account user satisfaction, the more user loyalty to the service will be. Hapidullah et al. (2022) also stated that customer satisfaction influences loyalty. When customers are satisfied with a product or service, they are more likely to continue using it and recommend it to others. Service quality is proven to be able to encourage loyalty when supported by a high level of user satisfaction. Good service and in accordance with users' preferences and comfort can affect their attitude and behavior in using mobile banking services continuously. Thus, the quality of digital services not only has a direct impact on loyalty, but also has an indirect influence through user satisfaction as a mediating variable. This finding strengthens the position of e-Service Quality as one of the important factors in forming e-Customer Loyalty through e-Customer Satisfaction.

The Influence of Site Organization on E-Customer Loyalty through E-Customer Satisfaction Mediation

The results of the analysis showed that *Site Organization* had a significant indirect effect on *E-Customer Loyalty* through *E-Customer Satisfaction*, with a t-statistic value of 2.015 and a p-value of 0.044. Since the p-value is below the threshold of 0.05, this hypothesis is accepted. This indicates that a good app layout and structure not only increases customer satisfaction, but also drives customer loyalty indirectly. Thus, *E-Customer Satisfaction* proves to be a significant mediating variable in this relationship. Raza et al. (2020) stated that when the management of a site or digital platform is organized systematically and neatly, it contributes to an increase in users' sense of comfort in accessing and using the available services.

The Influence of Reliability on E-Customer Loyalty through E-Customer Satisfaction Mediation

Based on the test results, it is known that the indirect effect of *Reliability* on *E-Customer Loyalty* through *E-Customer Satisfaction* is not significant, with a p-value of 0.070. Since this value exceeds the significance threshold of 0.05, this hypothesis is rejected. This means that while service reliability has an effect on customer satisfaction, it does not significantly mediate the influence on customer loyalty. According to Rachmawati et al. (2024), reliability has been proven to have a positive and significant impact on customer loyalty in the digital context, where customer satisfaction plays a mediating variable in the use of applications.

The Effect of Responsiveness on E-Customer Loyalty through E-Customer Satisfaction Mediation

The analysis showed that *Responsiveness* did not have a significant indirect influence on *E-Customer Loyalty* through *E-Customer Satisfaction*, indicated by a p-value of 0.180. Since this value is well above the significance limit of 0.05, the hypothesis is rejected. Thus, *E-Customer Satisfaction does not significantly mediate the relationship between service responsiveness and customer loyalty*. The results of Mulyawati and Putra's (2024) research indicate the importance for companies to prioritize the responsiveness aspect, including by presenting application features that quickly respond to transactions and are quick to resolve customer complaints.

The Influence of Userfriendliness on E-Customer Loyalty through E-Customer Satisfaction mediation

The test results showed that the indirect influence of *Userfriendliness* on *E-Customer Loyalty* through *E-Customer Satisfaction* was not significant, with a p-value of 0.083. Since this value exceeds the threshold of 0.05, the hypothesis is rejected. This suggests that although the ease of use of the app affects satisfaction, the follow-up effect on loyalty is not statistically strong enough through these mediating variables. Heidy et al. (2022) stated that the ease of use of the application (user-friendly) plays an important role in facilitating consumers to access and carry out transactions through mobile banking more practically. This has the potential to encourage increased customer satisfaction and loyalty to the service.

The Influence of Personal Need on E-Customer Loyalty through E-Customer Satisfaction mediation

Based on the results of the analysis, it was found that *Personal Need* had a significant indirect effect on *E-Customer Loyalty* through *E-Customer Satisfaction*, with a *t-statistic* of 2.683 and a p-value of 0.007. Since the p-value is below 0.05, the hypothesis is accepted. This shows that the app's ability to meet the personal needs of users contributes to increasing loyalty, through increased customer satisfaction. Simanjuntak and Mayasari (2023) explained that when the Personal Needs feature in an application is able to optimally answer consumer expectations, it will have a positive impact on customer satisfaction levels. In other words, the better the quality of the features that support the fulfillment of the user's personal needs, the higher the level of satisfaction felt.

The Effect of Efficiency on E-Customer Loyalty through E-Customer Satisfaction Mediation

The results of the structural analysis show that *Efficiency* has a significant indirect influence on *E-Customer Loyalty* through *E-Customer Satisfaction*, with a *t-statistic* of 3.411 and a p-value of 0.001. Since the value of p is significant, the hypothesis is accepted. This shows that efficiency in the use of applications increases customer satisfaction which in turn encourages the formation of customer loyalty indirectly. Based on the findings of Rachmawati et al. (2024), efficiency makes a positive and significant contribution to e-customer loyalty, where e-customer satisfaction plays a mediating variable in the relationship. Overall, all

dimensions in e-service quality show that improving the quality of electronic services in an application will have a direct impact on increasing electronic customer loyalty.

CONCLUSION

This study, based on responses from 385 users, found that the overall perception of e-service quality in the *myBCA* mobile banking application was highly positive, especially regarding visual appeal, service reliability, and ease of navigation, while technical stability was identified as an area needing improvement. High levels of e-customer loyalty and satisfaction were observed, with ease of use being particularly valued. The analysis showed that site organization, reliability, user-friendliness, personal need, and efficiency significantly influenced e-customer satisfaction, whereas responsiveness did not; satisfaction also played a crucial mediating role in linking certain service quality dimensions to customer loyalty. The findings highlight the need for BCA to continuously enhance features that drive satisfaction and loyalty, with a specific recommendation to address technical issues and improve responsiveness in both customer service and real-time system performance. For future research, it is suggested to explore the impact of advanced personalization and interactive design features on user satisfaction and loyalty, as well as to examine these relationships across different demographic segments to gain deeper insights into user preferences in digital banking.

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