

The Impact Of Customer Satisfaction On Customer Loyalty Of BCA Mobile Banking

Nur Lelasari^{1*} and Innocentius Bernarto²

^{1,2}Faculty Economic and Business, Pelita Harapan University, Jakarta

Email Address:

*nurlelasari26049@gmail.com, innocentius.bernarto@uph.edu

*Corresponding Author

Submitted 27-09-2022 Reviewed 14-10-2022 Revised 06-11-2022 Accepted 10-11-2022 Published 01-02-2023

Abstract: In order to meet the demands of customers who seek quick, simple, and affordable services, including banking services, businesses must adapt their methods of operation to the rapid growth of information and communication technology. This study seeks to ascertain what variables may directly affect customer loyalty in the usage of BCA mobile banking in Indonesia for millennials, as well as what factors can directly influence customer satisfaction to develop customer loyalty. Purposive sampling was used in this study's quantitative methodology, with a total sample size of 605, which was then analyzed using PLS-SEM. The results of the study stated that convenience had the greatest influence on increasing customer satisfaction. While the cost factor has no effect on increasing customer satisfaction in the use of BCA mobile banking, and responsive factor only has an effect on increasing satisfaction but does not affect customer loyalty. This provides benefits for developing BCA mobile banking.

Keywords: Customer Satisfaction; Customer Loyalty; Convenience; Expense; Responsiveness; Mobile Banking.

Abstrak: Perkembangan teknologi informasi dan komunikasi semakin pesat dapat mempengaruhi pola perilaku manusia dan gaya hidup masyarakat, sehingga cara berbisnis harus disesuaikan dengan kondisi konsumen saat ini yang menginginkan pelayanan yang serba cepat, mudah dan murah termasuk layanan perbankan. Penelitian ini bertujuan untuk mengetahui faktor apa saja yang dapat mempengaruhi *customer satisfaction* untuk membentuk *customer loyalty*, serta faktor apa saja yang bisa secara langsung mempengaruhi *customer loyalty* dalam penggunaan mobile banking BCA di Indonesia untuk kalangan millennial. Penelitian ini menggunakan metode kuantitatif dengan teknik *purposive sampling* dengan jumlah sampel sebanyak 605 yang dianalisis menggunakan PLS-SEM. Hasil penelitian menyatakan bahwa *convenience* memiliki pengaruh paling tinggi untuk meningkatkan *customer satisfaction*. Sedangkan faktor *expense* tidak memiliki pengaruh untuk meningkatkan kepuasan pelanggan dalam penggunaan mobile banking BCA, dan faktor *responsiveness* hanya berpengaruh untuk meningkatkan kepuasan, tetapi tidak mempengaruhi loyalitas pelanggan. Hal ini memberikan manfaat untuk melakukan pengembangan mobile banking BCA.

Kata Kunci: *Customer Satisfaction; Customer Loyalty; Convenience; Expense; Responsiveness; Mobile Banking.*

INTRODUCTION

The proliferation of internet-based applications that can be accessed through mobile devices such as smartphones is a direct result of the development of information technology and the internet (Febrianta, 2016). This results in the way that businesses are done having to adapt to the conditions of modern consumers, who demand services to be quick, easy, and affordable. These conditions apply to financial services as well (Suariedewi, 2020). Enterprises that wish to develop in this era of the industrial revolution 4.0 towards society 5.0 need to have a competitive advantage and be able to provide quality goods and services.



This is because the level of rivalry between companies will increase both domestically and internationally. (Nuruzzaman, 2019). Competition between companies also utilizes internet technology to create self-service services by giving more control to consumers directly (Febrianta, 2016). One of the technological advances that occur in the banking world is marked by the existence of online banking, where Bank Indonesia categorizes electronic banking services into four categories, namely sms banking, internet banking, phone banking and mobile banking (Liempepas and Meichael, 2019).

Currently, mobile banking is a major concern and is seen as a revolutionary strategic weapon for bank operations to deliver value as well as to compete between banks (Rithmaya, 2016). Mobile banking itself is a bank service that allows customers to obtain information, communicate, and also conduct banking transactions through the internet network (Jayantari and Seminari, 2018). Public acceptance of digital services This greatly encourages the growth of digital banking transactions, which, based on data from Bank Indonesia, stated that the value of digital banking transactions increased from 46.720 per cent year on year (YoY) to Rp 28,685.480 trillion for the period January to September 2021 and is projected to continue to increase. One of the most widely used services is BCA mobile banking, with 88 per cent of customer transactions made through mobile banking and internet banking, while 11.4 per cent through ATMs and 0.500 per cent through branches (Walfajri and Rahmawati, 2021). Banks began to develop their businesses to win the competition by also developing their mobile banking. **Table 1** summarizes the survey data from the Top Brand Index in categorizing mobile banking in 2021.

Table 1. Top Brand Index (TBI) Mobile Banking in 2021

Brand	TBI (per cent)
M-BCA	47.500
BRI <i>mobile</i>	17.000
BNI <i>mobile</i>	14.000
M-banking Mandiri	12.900
CIMB Niaga <i>mobile</i>	4.100

Source: www.topbrand-award.com/en/2021

Based on the survey results from the top brand index, there are five categories of the best banks and mobile banking in the survey; namely, mobile banking BCA is the leader with the highest percentage of 47.500 per cent, followed by other mobile banking providers. (Top Brand Awards, 2021).



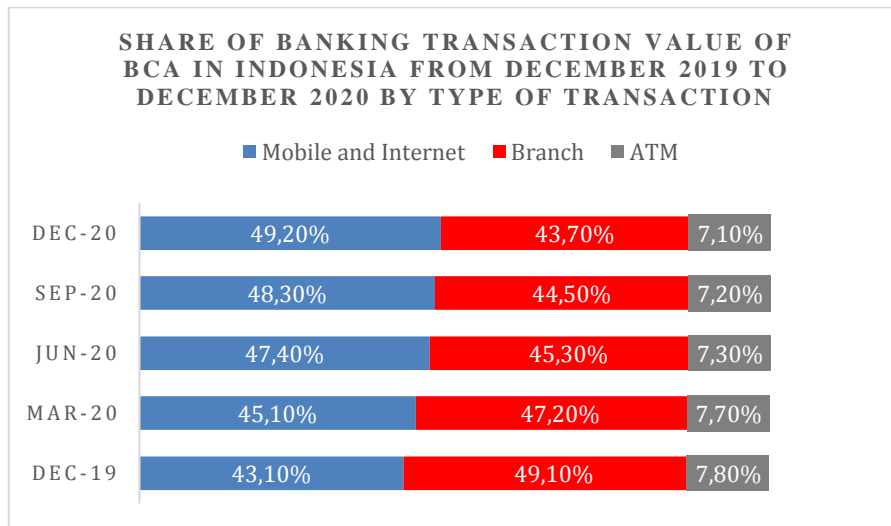


Figure 1. Bank BCA transaction value by type of transaction.

Source: <https://www.statista.com/>

Based on data in **Figure 1**, it can be seen the value of BCA banking transactions in Indonesia in 2020 according to the type of transaction. The percentage of mobile and internet banking usage continues to grow even though the growth is only around 2 per cent to 3 per cent. So, from the results of the above explanation, this study wants to examine whether there is an influence on the use of BCA mobile banking by the Indonesian people which can affect customer satisfaction and will further affect consumer loyalty.

This is based on other variables that will be examined in relation to expense, security, relative advantage, responsiveness and convenience. The results of previous studies examined by (Jahan and Shahria, 2021) showed that expense, responsiveness, and relative advantage had a significant effect on customer satisfaction. Meanwhile, convenience and security have no significant effect on customer satisfaction, but both are directly related to loyalty, even though customer satisfaction and loyalty are directly related.

This study is a modified study of (Jahan and Shahria, 2021) by adding the hypothesis that expense affects loyalty, security affects loyalty, relative advantage affects loyalty, responsiveness affects loyalty, and convenience affects loyalty. Then this study also has differences in terms of demographics. Where the research conducted by (Jahan and Shahria, 2021) was in Bangladesh, this study was carried out in Indonesia, especially the use of BCA mobile banking. Then in terms of demographics, this research is focused on mobile banking users among millennials, which may have something to do with banking adoption and customer satisfaction.

THEORETICAL REVIEW

Customer satisfaction. It is defined as the level of the perceived state of a customer or person resulting from comparing products or perceived performance to exceed their expectations (Afthanorhan, 2019). Customer satisfaction is the most important metric used to measure the success of a product or service. Customers will feel satisfied when the product they get and feel is in accordance with consumer expectations (Khairawati, 2020). The ability of banks to create and maintain customer satisfaction is a key index to



determining business success in creating more competitive competition, so banks, especially mobile banking services, must be able to provide superior service to all their customers to increase customer satisfaction (Hamidi and Safareeyeh, 2019).

Customer loyalty. Customer loyalty is a commitment to repurchase a product or service regardless of marketing efforts and offers that appear in the market that are able to produce positive financial outcomes (Santosos and Palma, 2020). Refers to the customer's intention or tendency to buy products or services from the same company, where loyal consumers will prefer a stable, long-term relationship (Puriwat and Tripopsakul, 2017). Customer loyalty is formed by continuous customer satisfaction accompanied by an emotional interest that is formed in the service provider, resulting in the willingness of customers to use products and services consistently from the same company (Guruwo, 2020). Customer loyalty in using mobile banking is very important because customers can easily obtain similar services from competitors, so customer loyalty has an important role in improving the quality of competition by increasing the needs of its customers (Alonso, 2020).

Expense. There are costs incurred in adopting new technologies, such as the use of mobile banking services; there are several usage fees, such as subscription fees, transaction fees, switching fees, and so on, that must be borne by the customer. (Owusu et al., 2021). The costs of acquiring and using new technologies usually involve a variety of relatively hidden costs, and most of these costs are influenced by the costs of business adoption via mobile phones (Abdus Salam et al., 2021). Companies should emphasize that adopting new technology using mobile banking services should be considered more profitable and useful than the costs incurred for using the service (Baabdullah et al., 2019).

Security. A security breach is defined as the level of confidence and trust in the web channel to transmit sensitive information. Even a security breach is considered to significantly prevent consumers from accessing sensitive information online. (Merhi et al., 2019). Security is the main concern when conducting transactions through electronic channels; therefore, security can be one of the main obstacles to the adoption of mobile banking because personal or monetary information can be exposed and can be used for fraud crimes (Singh, 2018). Based on previous research by (Mostafa, 2020) stated the importance of security and transaction confidentiality in the context of the use of mobile banking, which could be related to the perceived lack of control regarding information and transactions conducted electronically.

Relative advantage. Relative advantage is defined as the extent to which consumers are able to perceive an innovation as offering more advantages compared to the previous system used to carry out the same activity (Makanyeza, 2017). This reveals the extent to which new technology is able to provide more benefits compared to old technology in terms of economic benefits, efficiency, convenience, image enhancement, and others, where the perceived benefits will be used by adopters of new technology to evaluate the advantages of an innovation (Giovanis et al., 2019). Relative advantage is one of the most viewed dimensions of innovation in the mobile banking literature because of its ability to predict the adoption of mobile banking usage (Manser Payne et al., 2018).

Responsiveness. It can be defined as a willingness to help customers and the ability to provide fast service (Rahman, 2017). In mobile banking services, the responsiveness factor is very important because if the system is able to provide the services needed by customers and assistance appropriately and quickly, the customer will reach the point of satisfaction (Aldiabat et al, 2019). Previous research conducted by (Jahan, 2021) found that



responsiveness is the most powerful factor to have a significant impact on customer satisfaction.

Convenience. Customer convenience is defined as speed and convenience, where time flexibility, space flexibility, website accessibility, and product availability through online platforms are the main elements in creating customer convenience (Shankar and Rishi, 2020). Convenience has been discussed as an important factor in influencing technology adoption because convenience means that users believe that a new technology or system is able to help them complete their tasks and fulfil what they want (Chawla dan Joshi, 2018). In the use of mobile banking, transaction convenience is defined as the ease with which users can perform and modify transactions (Hung et al., 2019). The convenience provided in service is able to moderate the relationship between the dimensions of service quality (outcome, interaction, and environment) and the overall quality of mobile banking services. Therefore, the convenience factor is very important to creating value in a product or service so that consumers are able to spread positive news by word of mouth (Roy et al., 2018).

According to studies that were conducted in the past with the banking industry as their focus, financial institutions are recommended to positively influence customer satisfaction with the goal of generating client loyalty (Guruwo, 2020). Meanwhile, according to (Ying Lee, 2019), In most cases, a rise in client loyalty will follow closely after high levels of customer pleasure. The following hypotheses will be proposed after the problem has been formulated, the theory that has been described, and the findings of past research have been taken into consideration:

H1: Customer satisfaction influences loyalty.

According to findings from earlier studies, the price component has a direct influence on the degree to which customers are satisfied (Ali et al., 2019). Price sensitivity has an effect on the amount of money spent by consumers, which in turn has an effect on the level of happiness those purchasers feel with the product (Rashid dan Rokade, 2019).

H2: Expense influences customer satisfaction.

Previous research on electronic money user objects indicated that the perceived price had the largest effect on perceived value and had a substantial effect on customer loyalty. The research also found that the price element was more sensitive than the quality that was being offered (Putra et al., 2021). According to (Donni et al., 2018), one of the exogenous variables, namely the price variable, was found to have a significant direct positive effect on endogenous variables in the form of consumer loyalty. Based on the formulation of the problem, the theory that has been described, and the results of previous research, the following hypotheses will be proposed:

H3: Expense influences loyalty.

Mobile banking also involves more uncertainty and risk for its customers. Security has a very important role in the adoption of mobile banking. In a wireless security environment, it can be categorized as security in applications that allow cellular transactions, network security, and device security (Singh, 2018). Based on a previous study by



(Gomachab, 2018), several factors in the use of mobile banking that can affect customer satisfaction include reliability, transaction speed, cost-effectiveness, usefulness, responsiveness, security, trust, system availability, convenience, and also the accuracy of transactions. Based on the formulation of the problem, the theory that has been described, and the results of previous research, the following hypotheses will be proposed:

H4: Security influences customer satisfaction.

Customer trust is usually closely related to security and privacy, so a low level of trust from consumers will hinder the adoption of new banking technology through the internet, which we often know as mobile banking because mobile banking allows customers to conduct banking transactions more conveniently and securely through mobile devices (Changchit et al., 2020). Most of the previous studies focused mainly on the factors of protecting customer information related to information security to create an attitude of trust that has an effect on customer loyalty (Khoa, 2020). Based on the formulation of the problem, the theory that has been described, and the results of previous research, the following hypotheses will be proposed:

H5: Security influences loyalty.

In previous research with commercial bank objects by (Kahandawa and Wijayanayake, 2014), it was revealed that customer satisfaction in mobile banking services is influenced by usefulness, ease of use, relative advantage, perception of risk, user lifestyle, and current customer needs. Meanwhile, according to (Payne and Barger, 2018), the results show that the relative advantage variable has the most significant impact on the use of mobile banking. Based on the formulation of the problem, the theory that has been described, and the results of previous research, the following hypotheses will be proposed:

H6: Relative advantage influence customer satisfaction.

The findings of previous studies indicate that relative advantage, compatibility, perceived risk, and trust have a significant influence on customer loyalty. This influence is mediated by the variable of using mobile banking, with relative advantage and compatibility showing the strongest and most significant influence on the use of mobile banking (Muslim, 2021). Based on the formulation of the problem, the theory that has been described, and the results of previous research, the following hypotheses will be proposed:

H7: Relative advantage influences loyalty.

In previous research, according to (Khan et al., 2021), the results showed that there was a positive and significant influence on all service quality constructs, including tangibility, reliability, responsiveness, assurance, and empathy, that affected customer satisfaction in the use of mobile banking. Meanwhile, according to (Kant and Jaiswal, 2017), Tangibility, reliability, assurance, responsiveness, empathy, and image are some of the dimensions that make up service quality in the public sector. According to empirical findings, responsiveness is found to be a predictor of customer satisfaction, which has the most significant effect compared to other factors in service quality. Based on the formulation



of the problem, the theory that has been described and the results of previous research, the following hypotheses will be proposed:

H8: Responsiveness influences customer satisfaction.

It has been shown that responsiveness and employee dedication have a big and positive effect on customer satisfaction, and that customer happiness has a significant and positive association with customer loyalty (Islam et al., 2021). Previous studies conducted with the aim of mobile banking came to the conclusion that the elements that determine client loyalty include a company's responsiveness, reliability, customer happiness, and how well it builds confidence in its customers (Sayeeda dan Kavitha, 2019). Based on the formulation of the problem, the theory that has been described, and the results of previous research, the following hypotheses will be proposed:

H9: Responsiveness influences loyalty.

According to a previous study by (Trialih et al., 2018), it is said that reliability and responsiveness, assurance and security, convenience, efficiency, and easiness are perceived dimensions of the quality of mobile banking services, where the five dimensions show that they are overall relevant in predicting customer satisfaction with mobile banking. Meanwhile, according to (Zhang and Kim, 2020), a study on mobile fintech suggests that the characteristics of financial services, including convenience, benefits, security, and flexibility, are able to have a considerable influence on increasing customer satisfaction. Based on the formulation of the problem, the theory that has been described, and the results of previous research, the following hypotheses will be proposed:

H10: Convenience influences customer satisfaction.

Previous research on the mobile service industry discovered that product involvement, access convenience, perceived value, brand image, and transaction convenience are all strong predictors of customer loyalty (Cheng et al., 2020). In a previous study conducted by (Esmaeili et al., 2021), it was found that perceived convenience, subjective norms, and perceived usefulness of mobile banking have a significant positive effect on customer loyalty. Based on the formulation of the problem, the theory that has been described, and the results of previous research, the following hypotheses will be proposed:

H11: Convenience influences loyalty.



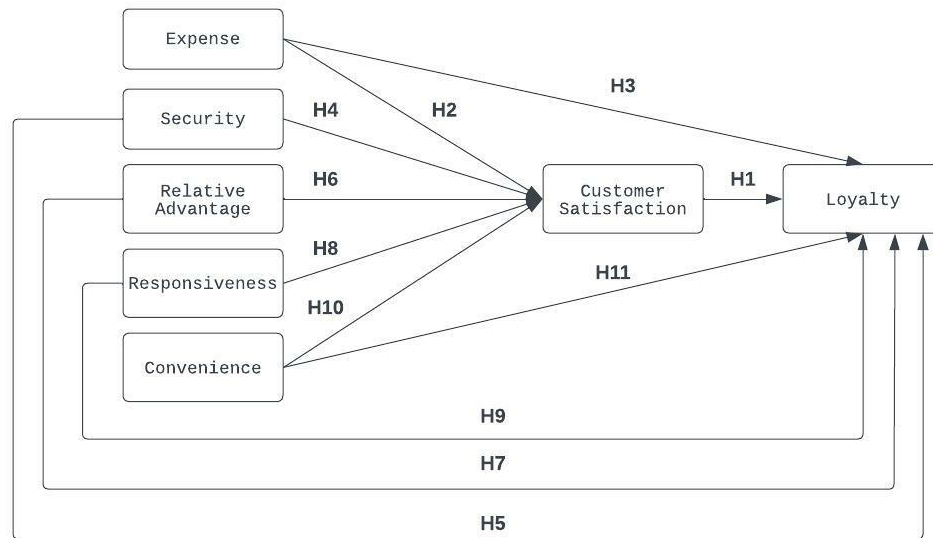


Figure 2. Research Model

Source: Modification Jahan and Shahria (2021)

METHODS

The implementation of this research makes use of quantitative procedures, which involve the utilization of numerical data beginning with the data collecting stage and continuing through the interpretation of the data and the presentation of quantifiable data outcomes. Then, the population that will be targeted will be everyone who uses BCA mobile banking, particularly millennials in Indonesia who, as of right now in the year 2022, are still actively using BCA mobile banking. In this particular instance, we decided to carry out research in order to uncover the aspects that influence consumer happiness when utilizing BCA mobile banking in the hopes that this will lead to an increase in customer loyalty. Concerning the objective of the study, the variables of cost, safety, relative advantage, responsiveness, and convenience serve as independent variables. The measurement of each variable uses several indicators, which are described in full in the following table.

Table 2. Indicator Each Variable.

Variables	Construct	Indicator	Source
Expense	EX1	Using BCA mobile banking cost a lot of money.	(Owusu et al., 2021).
	EX2	I think that the internet access fee will be high to use BCA mobile banking.	
	EX3	The costs incurred in using BCA mobile banking are reasonable.	(Malaquias and Silva, 2020)
Convenience	CO1	I can take advantage of BCA's mobile banking service whenever I want.	(Shankar and Rishi, 2020).
	CO2	I can easily find what I need through BCA mobile banking without having to look elsewhere.	



	CO3	BCA mobile banking is able to provide sufficient information to identify different products.	
Customer Satisfaction	CS1	I will choose to use the services offered by BCA mobile banking to meet my needs.	(Udofia et al., 2021).
	CS2	I am satisfied with the services provided by BCA mobile banking for every transaction.	(Baabdullah et al., 2019).
	CS3	Overall, I am satisfied with the services provided by BCA mobile banking.	(Katan et al., 2017).
Customer Loyalty	LO1	I will say positive things about the services provided by BCA mobile banking to others.	(Omoregie et al., 2019).
	LO2	I will recommend the services of BCA mobile banking to others who ask me for advice.	(Mulia et al., 2020).
	LO3	I prefer transactions using BCA mobile banking.	(Garepasha et al., 2020).
Relative Advantage	RA1	BCA mobile banking provides faster access for every transaction I need to make.	(Erskine et al., 2019).
	RA2	Using BCA mobile banking will make it easier for me to make transactions.	(Mehra et al., 2021).
	RA3	Using BCA mobile banking will make it easier for me to meet my financial needs.	(Chen et al., 2019).
	RA4	Using BCA mobile banking will increase my productivity.	
Responsiveness	RE1	I realize that BCA mobile banking provides a fairly fast response in providing services to its users.	(Raza and Umer, 2020).
	RE2	I believe that BCA mobile banking is not too busy to respond to customer requests.	(Khan et al., 2021).
	RE3	BCA mobile banking is able to serve my needs quickly and accurately.	(Shankar et al., 2019).
Security	SC3	BCA's mobile banking service has a secure transaction process.	(Zhou et al., 2021).
	SC4	My personal information is protected when using BCA mobile banking services.	(Shankar and Jebarajakirthy, 2019).
	SC5	My financial information is protected when using BCA mobile banking services.	(Singh and Srivastava, 2018).

These variables have a positive impact on customer satisfaction, which serves as a mediating variable, and ultimately leads to brand loyalty, which serves as the dependent variable for BCA mobile banking customers. We identified BCA mobile banking users who are genuinely able to provide maximum information regarding what aspects influence customer satisfaction using the purposive sample technique.

This results in an increase in customer loyalty with the criteria of customers who use BCA mobile banking for millennials and at least use BCA mobile banking to conduct transactions for their daily needs and customers who use all of the services contained in the mobile BCA application to meet their transaction needs. Customers who use BCA mobile banking for millennials and at least use BCA mobile banking to conduct transactions for their daily needs lead to an increase in customer loyalty.

For the purpose of this investigation, the target demographic consisted of all BCA mobile banking customers, with a particular focus on millennials in Indonesia who, as of

the current year 2022, continue to make regular use of BCA mobile banking. Questionnaires were disseminated via a Google form, and a total of 605 samples were collected over the course of about three months, from April 26, 2022, to July 16, 2022. Despite the fact that the method of sampling that was utilized was a non-probability sampling method. Purposive sampling is the form of non-probability that is utilized here.

In addition, PLS-SEM (Partial Least Square Equation Modelling) was used to establish the validity, reliability, and outcomes of the association between constructs. This was done in order to determine the relationship between constructs. PLS-SEM is used to test and measure the study model, including examining the relationship between the construct and the variables that have been proposed in the research model. PLS-SEM is also used to test and measure the correlation between the construct and the variables.

RESULTS

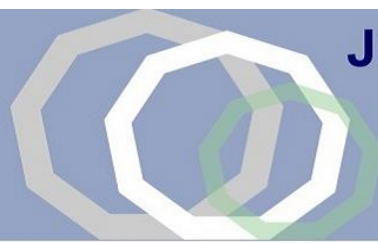
Respondent Profile. The following table presents, in accordance with the findings obtained from the dissemination of online questionnaires, the profile of respondents who filled them out and are included in the respondents who are considered in accordance with this research. These findings are presented in the form of a table. Users of BCA's mobile banking service are the appropriate respondents; therefore, there are 605 respondents.

Table 3. Respondent Profile

	Frequency	Per cent
Age		
25 to 30 years old	360	59.500
31 to 35 years old	152	25.100
36 to 40 years old	93	15.400
Occupation		
Student	112	18.500
Government employee	160	26.400
Private company employee	228	37.700
Businessman/woman	73	12.100
Others	32	5.300
Domicile		
Jabodetabek	471	77.900
Outside Jabodetabek	134	22.100
Income (Rp)		
Less than 3.000.000	130	21.500
5.000.000 to 10.000.000	322	53.200
More than 10.000.000	153	25.300

Source: Data Processed from Questionnaire (2022)

Table 3 presents the information that can be seen to be related to the respondent's profile based on the data that has been obtained. It is possible to draw the conclusion that



the majority of respondents are between the ages of 25 and 30, with a total of 360 respondents out of a total of 605 respondents; they work as private employees with as many as 228 respondents; they reside in the region of Jabodetabek with as many as 471 respondents; and the majority of respondents have an income between Rp. 5,000,000 and Rp. 10,000,000 with as many as 322 respondents. There were a total of 605 respondents.

Measurement Model. PLS Structural Equation Modeling (SEM), which comprises two approaches, namely reliability and validity testing, was utilized in this work for the purpose of analyzing the data collected. In this study, the researchers allow for a 5 per cent error tolerance. Because every variable has a Composite Reliability (CR) that is equal to or greater than 0.700, this study is regarded as having a high level of reliability.

This research also included a validity test, which was carried out with the use of discriminant validity tests and convergent validity tests. The purpose of these tests was to determine how accurate a measuring instrument was when it came to performing its measurement function (Ghozali and Latan, 2016). A minimum value of 0.700 is required for convergent validity, and this value can be established through the use of Average Variance Extracted (AVE) and Outer Loadings. In order for the AVE value to be regarded as legitimate, it needs to be greater than 0.500. In this investigation, the variable measuring customer satisfaction yielded the highest AVE value, with a value of 0.853; conversely, the variable measuring convenience yielded the lowest AVE value, with a value of 0.746. Both of these findings are presented in the table below. Please refer to Table 3 below in order to carry out an in-depth analysis of the measurement model.

Table 4. Evaluation of Model Measurement

Construct	Indicator	Outer Loading
Expense (Cronbach's Alpha of 0.864; AVE of 0.786; CR of 0.917)		
EX1	Using BCA mobile banking cost a lot of money.	0.870
EX2	I think that the internet access fee will be high to use BCA mobile banking.	0.897
EX3	The costs incurred in using BCA mobile banking are reasonable.	0.892
Convenience (Cronbach's Alpha of 0.830; AVE of 0.746; CR of 0.898)		
CO1	I can take advantage of BCA's mobile banking service whenever I want.	0.874
CO2	I can easily find what I need through BCA mobile banking without having to look elsewhere.	0.855
CO3	BCA mobile banking is able to provide sufficient information to identify different products.	0.862
Customer Satisfaction (Cronbach's Alpha of 0.914; AVE of 0.853; CR of 0.946)		
CS1	I will choose to use the services offered by BCA mobile banking to meet my needs.	0.930
CS2	I am satisfied with the services provided by BCA mobile banking for every transaction.	0.933
CS3	Overall, I am satisfied with the services provided by BCA mobile banking.	0.908
Loyalty (Cronbach's Alpha of 0.891; AVE of 0.822; CR of 0.933)		
LO1	I will say positive things about the services provided by BCA mobile banking to others.	0.918



LO2	I will recommend the services of BCA mobile banking to others who ask me for advice.	0.925
LO3	I prefer transactions using BCA mobile banking. Relative Advantage (Cronbach's Alpha of 0.915; AVE of 0.797; CR of 0.940)	0.876
RA1	BCA mobile banking provides faster access for every transaction I need to make.	0.851
RA2	Using BCA mobile banking will make it easier for me to make transactions.	0.874
RA3	Using BCA mobile banking will make it easier for me to meet my financial needs.	0.921
RA4	Using BCA mobile banking will increase my productivity. Responsiveness (Cronbach's Alpha of 0.851; AVE of 0.786; CR of 0.908)	0.923
RE1	I realize that BCA mobile banking provides a fairly fast response in providing services to its users.	0.820
RE2	I believe that BCA mobile banking is not too busy to respond to customer requests.	0.913
RE3	BCA mobile banking is able to serve my needs quickly and accurately. Security (Cronbach's Alpha of 0.889; AVE of 0.891; CR of 0.931)	0.893
SC3	BCA's mobile banking service has a secure transaction process.	0.895
SC4	My personal information is protected when using BCA mobile banking services.	0.904
SC5	My financial information is protected when using BCA mobile banking services.	0.915

Source: Data processed from Questionnaire (2022)

In addition, this investigation makes use of discriminant validity, which stipulates that the dependent variables representing various constructs should not have a significant degree of connection with one another. The Fornell-Larcker Criterion and the Heterotrait-Monotrait (HTMT) ratio, which is used to determine the correlation between components, are both utilized in the process of testing the discriminant validity of a measure. If the HTMT number is less than 0.950, then it is regarded as valid; however, if it is greater than 0.950, then it is not genuine. The information that follows is pertinent to the presentation of test findings in the research tests that were performed.

Table 5. Heterotrait-Monotrait (HTMT) Ratio

	CO	CS	EX	LO	RA	RS	SC
CO							
CS	0.867						
EX	0.757	0.655					
LO	0.847	0.851	0.757				
RA	0.751	0.755	0.807	0.820			
RS	0.535	0.524	0.268	0.431	0.408		
SC	0.823	0.768	0.839	0.852	0.779	0.399	

Source: Result from Smart PLS 3.2.9 Data Processed from Questionnaire (2020)

The Fornell-Larcker Criterion is another example of a convergent validity measurement that can be used instead of the HTMT. The Fornell-Larcker Criterion method



makes a comparison of the square root value of the average variance extracted from each construct with the correlation of the relationships that exist between the other constructs in a model. In addition, if this value is higher than the correlation value between the other constructs in the same model, then it is possible to assert that the research model that was utilized in the study was an accurate representation of reality (Henseler et al., 2015). Based on the results that can be seen in **Table 3** regarding the Fornell-Larcker Criterion, this research model already has fairly good discriminant validity.

Structural Model. R-Squared, Multicollinearity Statistics, and Bootstrapping are the three different types of measurements that can be carried out in order to assess the structural model, also known as the inner model, which is used to characterize the link that exists between the variables. There is an explanation of the R-Square test, which can be found below in the table. This test is intended to determine whether or not the variable in question serves an objective function.

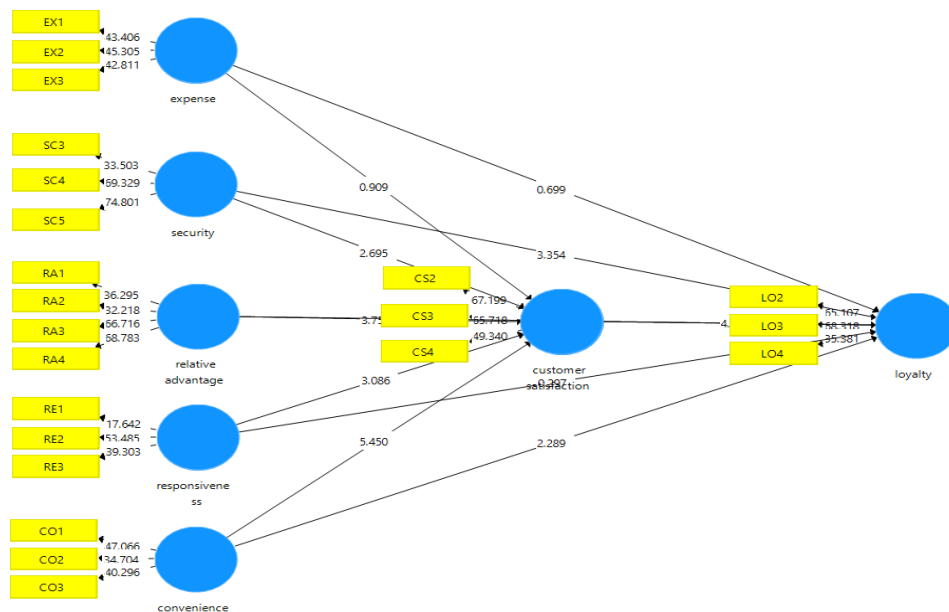


Figure 3. Research Model

Source: Smart PLS 3.2.9 Data Processed from Questionnaire (2020)

When more independent variables are included in the research model that is being developed, the R-square value will continue to rise in tandem with this expansion. Additionally, this R-Square is utilized with the purpose of elucidating how much of an influence the dependent variable has on the independent variable. Alternatively, the coefficient of determination can be referred to as the R-Square.

Table 6. R-Squared

Variable	R ²
Customer Satisfaction	0.671
Loyalty	0.729

Source: Result from Smart PLS 3.2.9 Data Processed from Questionnaire (2020)



The R-Square statistic can reach a maximum value of 1.000, which is equivalent to a value of 100 per cent. This indicates that the data obtained from the study carried out has a value that is very consistent with the linear model. In most cases, the value that an R-Square possesses in an investigation does not reach the maximum value. This is because the criteria for each distinct research setting are varied. According to **Table 5**, the variable known as "Customer Satisfaction" has an R-Squared value of 0.671, which translates to 67.100 per cent. This percentage indicates that Customer Satisfaction may be represented by Convenience, Expense, Security, Loyalty, Relative Advantage, and Responsiveness.

Table 7. Multicollinearity Statistics

As a Predictor of Satisfaction		As a Predictor of Loyalty	
Construct	VIF	Construct	VIF
CO	2.489	CO	3.002
EX	2.788	CS	3.043
RA	2.596	EX	2.797
RS	1.322	RA	2.812
SC	2.939	RS	1.367
		SC	3.080

The result from Smart PLS 3.2.9 Data Processed from Questionnaire (2020)

Statistics known as multicollinearity are computed with the purpose of establishing whether or not there is a correlation between variables that are considered independent. The results of these computations are produced by calculating the Variance Inflation Factor, which has a value that is less than 5.000. The value of this factor is less than 5.000. This indicates that, according to the findings presented in Table 6, the value of the independent variable is less than 5.000. Since there is no correlation between any of these variables and the values of the other independent variables, it can be concluded that the results presented here are reliable.

The next stage is called bootstrapping testing, and its purpose is to determine whether or not the weight or score that was obtained is statistically significant. In this investigation, a test with one tail is utilized, and a significance level of 5 per cent is determined. Studies that only use one type of test are required to have t-statistics that are higher than 1.650. p-values are a measurement that ranges in worth from -1 to +1, and their purpose is to determine how strong of a relationship exists between hypotheses. If the p-values are somewhat near to one, it is generally accepted that the hypotheses have a stronger association with one another.

It is clear from looking at table 7 that out of all of the hypotheses, the one that has the greatest P-value is H11, which states that ease of access has a positive impact on customer loyalty and has a value of 0.021. This indicates that the connection between reliability and ease of use is the one that holds the strongest relationship between the variables.



Table 8. Hypothesis Testing

Hypothesis	T Statistics	P-Values	Conclusion
H1: <i>Customer satisfaction</i> → <i>loyalty</i> .	3.979	0.000	Accepted
H2: <i>Expense</i> → <i>customer satisfaction</i> .	0.908	0.337	Not Accepted
H3: <i>Expense</i> → <i>loyalty</i> .	0.684	0.465	Not Accepted
H4: <i>Security</i> → <i>customer satisfaction</i> .	2.587	0.009	Accepted
H5: <i>Security</i> → <i>loyalty</i> .	3.322	0.000	Accepted
H6: <i>Relative advantage</i> → <i>customer satisfaction</i> .	3.778	0.000	Accepted
H7: <i>Relative advantage</i> → <i>loyalty</i> .	2.892	0.005	Accepted
H8: <i>Responsiveness</i> → <i>customer satisfaction</i> .	2.938	0.004	Accepted
H9: <i>Responsiveness</i> → <i>loyalty</i> .	0.311	0.746	Not Accepted
H10: <i>Convenience</i> → <i>customer satisfaction</i> .	5.530	0.000	Accepted
H11: <i>Convenience</i> → <i>loyalty</i> .	2.293	0.021	Accepted

The result from Smart PLS 3.2.9 Data Processed from Questionnaire (2020)

It is possible to draw the following conclusion from the findings of the testing of hypotheses that have been carried out: of the eleven hypotheses tested, there are three hypotheses that have a t-statistics value of less than 1.650, and there are also three hypotheses that have a P value of more than 0.005 in accordance with the findings of the testing. T-Statistics, which has the largest value, specifically hypothesis 10 related to convenience, has been found to have a positive effect on customer satisfaction. This finding can be deduced from the findings of the testing of hypotheses that have been carried out and the results that have been obtained. According to the findings of the research conducted by (Zhang and Kim, 2020), this idea can be substantiated.

Furthermore, according to the findings of a research study conducted using a mobile fintech object, the factors of ease, benefits, security, and flexibility can each have a significant impact on the degree to which a client is satisfied with the financial services they receive. In order to ensure that customers using BCA mobile bank in Indonesia are happy with the level of convenience provided by the service. This indicates that the user has faith that the newly implemented technology or system will be able to meet the user's requirements and expectations.

In the meantime, t-statistics, which has a value that is the lowest compared to other variables, specifically hypothesis 9's value of 0.324, is associated with responsiveness, which has a negative effect on loyalty. This indicates that this hypothesis is not accepted, as previous research conducted by (Prentice et al., 2020) found that the responsiveness variable had a negative effect on customer loyalty. This indicates that the responsiveness of BCA's mobile banking service has only a partial effect, which indicates that consumers perceive responsiveness to have an effect on customer satisfaction, but it does not necessarily have a positive impact on customer loyalty. The t-statistics that are not accepted because they have a value that is lower than 1.650, namely H2 of 0.337, are associated with costs that have a detrimental impact on the level of satisfaction a company's clients feel they receive from their interactions with the company.

According to a study that was conducted in the past by (Jiang and Zhang, 2016), it was discovered that the expense variable has a fluctuating influence under some conditions on customer satisfaction. For example, some customers may react that the expense has a negative effect on customer satisfaction. This indicates that the total amount of money incurred to complete transactions via BCA mobile banking has no bearing on the level of



satisfaction achieved with the company's clients. In addition, it has a detrimental impact on customer loyalty for t-statistics that are rejected because their value is lower than 1.650, specifically for H3, with a value of 0.731 that is associated with expenses. According to the findings of earlier studies conducted by (Rivaldo et al., 2022), transaction activities that require little expenses, it would not necessarily result in customer loyalty. According to the findings of this study, the transaction expenses associated with utilizing BCA mobile banking would not reduce the level of customer loyalty experienced by BCA customers.

DISCUSSION

Customer satisfaction influence Loyalty. In this study, Hypothesis 1 was accepted. This is also in accordance with (Lee, 2019), which states that in many cases, an increase in client loyalty will follow a high level of customer satisfaction. It can be seen that the p-value of hypothesis 1 is 0.000, and the t-statistic is 3.979, which is higher than the minimum value of 1.650, so it is accepted. So it can be said that if BCA mobile banking customer satisfaction increases, customer loyalty will also increase. In this case, it can be said that BCA's mobile banking must continue to retain customers so that it will have an impact on gaining more customers. This will affect the growth of BCA's mobile banking usage.

The expense to customer satisfaction. Hypothesis 2 is not accepted. This is because, based on the results of data processing, the p-value of hypothesis 2 is 0.337, and the t-statistic is 0.908, which is lower than the minimum value of 1.650. So it can be concluded that if the costs incurred by customers increase, customer satisfaction will decrease. This is also evidenced by previous research by (Jiang and Zhang, 2016), which states that variable costs have a highly fluctuating influence on customer satisfaction. This shows that the total costs incurred by customers in conducting transactions using BCA mobile banking have an influence on the level of customer satisfaction. If the costs incurred in conducting transactions continue to increase, customer satisfaction will decrease. So, in this case, BCA mobile banking must continue to maintain cost stability to maintain customer satisfaction.

The expense to loyalty. Hypothesis 3 is not accepted. This is because, when viewed based on the results of data processing that has been carried out, the p-value of hypothesis 3 is 0.465 and t statistics is 0.684, which is lower than the minimum value of 1.650. So with this, it can be concluded that as the costs incurred by customers increase, customer loyalty will decrease.

This has also been supported by previous research by (Son et al., 2020), which states that the costs incurred in adopting new technologies, including mobile banking, have a significant influence on customer loyalty. This means that if the costs used in adopting and using BCA mobile banking services increase, then customer loyalty will decrease. This is important to consider in the development of BCA mobile banking in the future.

Security to customer satisfaction. In this study, hypothesis 4 is accepted. This can be seen from the results of data processing, showing that the p-value of hypothesis 4 is 0.009 and the t-statistic value is 2.587, which means that it is more than the minimum value of 1.650, so this hypothesis is accepted. This is relevant to previous research conducted by (Singh, 2018), which states that mobile banking involves a lot of uncertainty and security risks for its users, so in this case, security is a very important factor in the use of mobile banking services to increase customer satisfaction.

So it can be concluded that if BCA's mobile banking service has a very well-maintained security quality, then this will also increase customer satisfaction, where



customers feel safe in conducting transactions and using all the services of BCA mobile banking. So, in the future, BCA mobile banking must continue to improve the quality of data security and customer transactions.

Security to loyalty. In this study, hypothesis 5 is accepted. This can be seen based on the results of data processing that has been carried out. The p-value of hypothesis 5 is 0.000, and the t-statistics value is 3.322, which means it is more than the minimum value of 1.650, so this hypothesis is accepted.

This is also relevant to (Khoa, 2020) previous research, which states that the customer information protection factor is related to information security to create an attitude of trust that affects customer loyalty. So, it can be concluded that the protection of customer information, as well as an adequate level of security, will increase customer loyalty when using BCA mobile banking services. So it is necessary to develop the level of customer data security, personal transaction information, and customer data privacy in the future to continue to increase customer loyalty.

The relative advantage to customer satisfaction. In hypothesis 6, this is accepted. This can be seen based on the results of data processing that has been carried out. The p-value of hypothesis 6 is 0.000, and the t-statistics value is 3.778, which means that it is more than the minimum value of 1.650, so this hypothesis is accepted.

This is relevant to previous research, according to Payne and Barger (2018), who state from the results of their research that the relative advantage variable in the use of mobile banking has the most significant influence on customer satisfaction. In this case, if mobile banking services can create innovations to provide more benefits compared to other systems, it will increase customer satisfaction in using mobile banking services so that this can be used as a reference for BCA mobile banking in increasing innovation and being able to provide many services that make it easier and also profitable for its users to continue to improve customer satisfaction in the future.

The relative advantage to loyalty. In hypothesis 7, this is accepted. This can be seen based on the results of data processing. The p-value of hypothesis 7 is 0.005 and the value of t statistics is 2.892, which means it is more than the minimum value of 1.650, so in this case the hypothesis is accepted. Based on previous research conducted by (Muslim, 2021), it was stated that relative advantage, compatibility, perceived risk, and trust have a significant influence on customer loyalty.

In this case, it can be concluded that if the mobile banking service is able to provide benefits and also develop maximum features to provide more value than other systems, then this will also increase customer loyalty. BCA mobile banking must continue to offer more benefits to customers in its use so that the loyalty of its customers will also increase.

Responsiveness to customer satisfaction. Hypothesis 8 is accepted. This can be seen in the results of data processing that has been carried out. The hypothetical p-value is 0.004, and the t-statistics value is 2.938, which means that it exceeds the minimum value of 1.650. This is also relevant to previous research. (Khan et al., 2021) stated that there is a positive and significant influence on the construct of service quality, including tangibility, reliability, responsiveness, assurance, and empathy, which can affect customer satisfaction with the use of mobile banking services.

This proves that the higher the level of responsiveness of BCA's mobile banking services, the higher customer satisfaction. Thus, BCA mobile banking must be able to provide fast services according to the needs of its customers. Improvement of system



services in BCA mobile banking is very necessary because customers need fast, responsive service to reach the point of customer satisfaction.

Responsiveness to loyalty. Hypothesis 9 is not accepted. This can be seen from the results of the data processing. The p-value of the hypothesis is 0.746, and the hypothetical t-statistics value is 0.311, which means it is less than the minimum limit of 1.650, so this hypothesis is not accepted. This is relevant to previous research conducted by (Prentice et al., 2020), finding that the responsiveness variable has a negative effect on customer loyalty. This shows that the responsiveness of BCA's mobile banking only has a partial effect, where consumer responses have an effect on customer satisfaction but not necessarily a positive effect on customer loyalty.

Convenience to customer satisfaction. Hypothesis 10 is accepted. This can be seen from the results of the data processing carried out; the p-value of the hypothesis is 0.000, and the t-statistic value is 5.530, which means that it is greater than the minimum value of 1.650, so this hypothesis is accepted.

This is relevant to previous research conducted by (Zhang and Kim, 2020) regarding mobile fintech, which shows the characteristics of financial services, including convenience, benefits, security, and flexibility, are able to have a considerable influence on increasing customer satisfaction. This is very important for BCA mobile banking to increase customer convenience so that it will increase customer satisfaction. BCA mobile banking in the future must continue to create convenience by considering time flexibility, space flexibility, website accessibility, and product availability through online platforms to create convenience for all its users.

Convenience to loyalty. In hypothesis 11, it is accepted. The results of the data processing show that the p-value of the hypothesis is 0.021, and the value of t statistics is 2.293, which means that it is greater than the minimum value of 1.650.

This is relevant to previous research conducted by (Cheng et al., 2020), which stated that the cellular service industry found that product involvement, access convenience, perceived value, brand image, and transaction convenience were strong predictors of customer loyalty. So, if the use of BCA mobile banking increases the level of comfort, it will have an effect on increasing customer loyalty in its use. In this case, the BCA mobile banking service must continue to improve services by helping users solve problems and fulfil what customers want by using BCA mobile banking.

This study provides empirical evidence of a positive relationship between the five independent variables used, including expense, security, relative advantage, responsiveness, and convenience, with their influence on customer satisfaction and loyalty to the use of BCA mobile banking in Indonesia. Based on the results that have been described, it is possible to draw the following conclusion: this study provides empirical evidence of a positive relationship between the five independent variables used. There are eight hypotheses that have a positive link between variables, and there are three hypotheses that have a negative relationship between variables, according to the 11 hypothesis tests that were carried out. The responsiveness to loyalty variable has a negative association, which means that a BCA mobile banking system or application that is able to help customers provide services promptly can provide satisfaction to consumers, but it will not necessarily have an impact on consumer loyalty as well as variables that have a further negative influence, namely expense on customer satisfaction and expense on customer loyalty. This means that the costs incurred by consumers to adopt new technologies, such as the BCA mobile banking application, have no effect on customer satisfaction and loyalty.



Finding Implication: Furthermore, this research has the potential to provide benefits for determining items that are used as considerations in the development of BCA mobile banking, with the ultimate goal of becoming the most superior mobile banking application service and being able to compete with industries that are analogous to it. BCA mobile banking application needs to continue to maintain and improve its application security, develop additional features in order to provide the maximum benefits possible in comparison to the use of older technology and be able to provide convenience and flexibility in order to make the application more user-friendly for customers who use it. According to the data, it has the potential to increase both consumer pleasure and loyalty.

Limitations and suggestions for further research: Because this study only focuses on five variables, which include expense, security, relative advantage, responsiveness, and convenience that affect customer satisfaction and loyalty, suggestions for further research to add several factors that can affect customer satisfaction and also customer loyalty in the use of BCA mobile banking are made. These suggestions for further research are made because this study only focuses on five variables. In addition, it is necessary to add relevant and complex question indicator items according to consumer conditions in the future so that they can further identify what factors can affect customer satisfaction and loyalty in the use of BCA mobile banking. This is so that they can further determine what factors can affect customer satisfaction and loyalty in the use of BCA mobile banking. In addition, the number of respondents needs to be included, as there were only a maximum of 605 respondents used in this particular study. It is strongly suggested that future studies demonstrate the precision of the data collected as well as give satisfactory levels of reliability and validity. In addition, the research is only conducted in the Indonesian region, and it is restricted to millennials. However, more research is anticipated to be capable of reaching respondents throughout the Asian region. In addition, because the outcomes of the expense variable have a detrimental effect on the levels of customer satisfaction and loyalty, it is preferable, for the purpose of conducting additional research, that this variable is omitted from the analysis and instead replaced by another variable that is more pertinent. As a final recommendation, it is hoped that future research will make use of more accurate methods in order to be able to group respondents specifically, such as more mobile banking users. This is due to the fact that this study only sorts those who use BCA mobile banking in general, so the type of sampling used is purposive sampling. Consequently, the type of sampling that was used was. From a single year or divided into a number of distinct categories of customers.

REFERENCES

- Abdus Salam, M., Saha, T., Habibur Rahman, M., and Mutsuddi, P. (2021). Challenges to Mobile Banking Adaptation in COVID-19 Pandemic. *Journal of Business and Management Sciences*, 9(3), 101–113. <https://doi.org/10.12691/jbms-9-3-2>.
- Afthanorhan, A., Awang, Z., Rashid, N., Foziah, H., and Ghazali, P. L. (2019). Assessing The Effects Of Service Quality On Customer Satisfaction. *Management Science Letters*, 9(1), 13–24. <https://doi.org/10.5267/j.msl.2018.11.004>.
- Aldiabat, K., Al-Gasaymeh, A., and Rashid, A. S. K. (2019). The Effect Of Mobile Banking Applications On Customer Interaction In The Jordanian Banking Industry. *International Journal of Interactive Mobile Technologies*, 13(2), 37–48. <https://doi.org/10.3991/ijim.v13i02.9262>.



- Alonso-Dos-Santos, M., Soto-Fuentes, Y., and Valderrama-Palma, V. A. (2020). Determinants of Mobile Banking Users' Loyalty. *Journal of Promotion Management*, 26(5), 615–633. <https://doi.org/10.1080/10496491.2020.1729312>.
- Baabdullah, A. M., Alalwan, A. A., Rana, N. P., Kizgin, H., and Patil, P. (2019). Consumer use of mobile banking (M-Banking) in Saudi Arabia: Towards an integrated model. *International Journal of Information Management*, 44(August 2018), 38–52. <https://doi.org/10.1016/j.ijinfomgt.2018.09.002>.
- Changchit, C., Klaus, T., Lonkani, R., and Sampet, J. (2020). A Cultural Comparative Study of Mobile Banking Adoption Factors. *Journal of Computer Information Systems*, 60(5), 484–494. <https://doi.org/10.1080/08874417.2018.1541724>.
- Changchit, C., Klaus, T., Lonkani, R., and Sampet, J. (2020). A Cultural Comparative Study of Mobile Banking Adoption Factors. *Journal of Computer Information Systems*, 60(5), 484–494. <https://doi.org/10.1080/08874417.2018.1541724>.
- Cheng, B. L., Gaur, S. S., and Rahim, R. A. (2020). Factors Leading To Customer Retention In The High Volume-Low Volume Service Context: Evidence From The Mobile Service Industry. *Asian Journal of Business Research*, 10(1), 68–103. <https://doi.org/10.14707/ajbr.200076>.
- Donni, R., Dastane, O., Haba, H. F., and Selvaraj, K. (2018). Consumer Perception Factors for Fashion M-Commerce and its Impact on Loyalty among Working Adults. *Business and Economic Research*, 8(2), 168. <https://doi.org/10.5296/ber.v8i2.13044>.
- Esmaeili, A., Haghgoo, I., Davidaviciene, V., and Meidute-Kavaliauskiene, I. (2021). Customer Loyalty In Mobile Banking: Evaluation Of Perceived Risk, Relative Advantages, And Usability Factors. *Engineering Economics*, 32(1), 70–81. <https://doi.org/10.5755/j01.ee.32.1.25286>.
- Febrianta, A., and Indrawati. (2016). Influence of Mobile Banking Service Quality To Customer Satisfaction Bank BCA in Bandung. *E-Proceeding of Management*, 3(3), 2879–2885.
- Giovanis, A., Athanasopoulou, P., Assimakopoulos, C., and Sarmaniotis, C. (2019). Adoption Of Mobile Banking Services: A Comparative Analysis Of Four Competing Theoretical Models. *International Journal of Bank Marketing*, 37(5), 1165–1189. <https://doi.org/10.1108/IJBM-08-2018-0200>.
- Guruwo, P. (2020). Impact of Customer Satisfaction on Customer Loyalty in the Banking Sector. *Theoretical & Applied Science*, 86(06), 372–375. <https://doi.org/10.15863/tas.2020.06.86.71>.
- Hamidi, H., and Safareeyeh, M. (2019). A Model To Analyze The Effect Of Mobile Banking Adoption On Customer Interaction And Satisfaction: A Case Study Of M-Banking In Iran. *Telematics and Informatics*, 38, 166–181. <https://doi.org/10.1016/j.tele.2018.09.008>.
- Hung, D. N., Tham, J., Azam, S. M. F., and Khatibi, A. A. (2019). An Empirical Analysis of Perceived Transaction Convenience, Performance Expectancy, Effort Expectancy and Behavior Intention to Mobile Payment of Cambodian Users. *International Journal of Marketing Studies*, 11(4), 77. <https://doi.org/10.5539/ijms.v11n4p77>.
- Islam, R., Ahmed, S., Rahman, M., and Al Asheq, A. (2021). Determinants Of Service Quality And Its Effect On Customer Satisfaction And Loyalty: An Empirical Study Of The Private Banking Sector. *TQM Journal*, 33(6), 1163–1182. <https://doi.org/10.1108/TQM-05-2020-0119>.



- Jahan, N. (2021). *Factors Affecting Customer Satisfaction Of Mobile Banking In Bangladesh: A Study On Young Users' Perspective*. <https://doi.org/10.1108/SAJM-02-2021-0018>
- Jayantari, I. A. A. U., and Seminari, N. K. (2018). Peran Kepercayaan Memediasi Persepsi Risiko Terhadap Niat Menggunakan Mandiri Mobile Banking Di Kota Denpasar. *E-Jurnal Manajemen Universitas Udayana*, 7(5), 2621. <https://doi.org/10.24843/ejmunud.2018.v07.i05.p13>.
- Jiang, H., and Zhang, Y. (2016). An Investigation Of Service Quality, Customer Satisfaction And Loyalty In China's Airline Market. *Journal of Air Transport Management*, 57, 80–88. <https://doi.org/10.1016/j.jairtraman.2016.07.008>.
- Kant, R., and Jaiswal, D. (2017). The Impact Of Perceived Service Quality Dimensions On Customer Satisfaction: An Empirical Study On Public Sector Banks In India. *International Journal of Bank Marketing*, 35(3), 411–430. <https://doi.org/10.1108/IJBM-04-2016-0051>.
- Khan, A. G., Lima, R. P., and Mahmud, M. S. (2021). Understanding the Service Quality and Customer Satisfaction of Mobile Banking in Bangladesh: Using a Structural Equation Model. *Global Business Review*, 22(1), 85–100. <https://doi.org/10.1177/0972150918795551>.
- Khoa, B. T. (2020). The Impact of the Personal Data Disclosure's Tradeoff on the Trust and Attitude Loyalty in Mobile Banking Services. *Journal of Promotion Management*, 27(4), 585–608. <https://doi.org/10.1080/10496491.2020.1838028>.
- Lee, C. Y. (2019). Does Corporate Social Responsibility Influence Customer Loyalty in the Taiwan Insurance Sector? The role of Corporate Image and Customer Satisfaction. *Journal of Promotion Management*, 25(1), 43–64. <https://doi.org/10.1080/10496491.2018.1427651>.
- Liempepas, I., Meichael, and Sihombing, S. O. (2019). Analisis Faktor – Faktor Yang Mempengaruhi Niat Penggunaan Berkelanjutan: Studi Empiris Pada Mobile Banking Bca. *Jurnal Riset Manajemen Sains Indonesia (JRMSI)*, 10(2), 306–336.
- Makanyeza, C. (2017). Determinants Of Consumers' Intention To Adopt Mobile Banking Services In Zimbabwe. *International Journal of Bank Marketing*, 35(6), 997–1017. <https://doi.org/10.1108/IJBM-07-2016-0099>.
- Manser Payne, E., Peltier, J. W., and Barger, V. A. (2018). Mobile Banking And AI-Enabled Mobile Banking: The Differential Effects Of Technological And Non-Technological Factors On Digital Natives' Perceptions And Behaviour. *Journal of Research in Interactive Marketing*, 12(3), 328–346. <https://doi.org/10.1108/JRIM-07-2018-0087>.
- Merhi, M., Hone, K., and Tarhini, A. (2019). A Cross-Cultural Study Of The Intention To Use Mobile Banking Between Lebanese And British Consumers: Extending UTAUT2 with security, privacy and trust. *Technology in Society*, 59, 101151. <https://doi.org/10.1016/j.techsoc.2019.101151>.
- Mostafa, R. B. (2020). Mobile Banking Service Quality: A New Avenue For Customer Value Co-Creation. *International Journal of Bank Marketing*, 38(5), 1107–1132. <https://doi.org/10.1108/IJBM-11-2019-0421>.
- Muslim, H. (2021). *Factors Affecting Customer Loyalty in the Use of Mobile Banking Sharia Bank " X " In Jakarta*. 4925–4941.
- Nuruzzaman, N., Singh, D., and Pattnaik, C. (2019). Competing To Be Innovative: Foreign Competition And Imitative Innovation Of Emerging Economy Firms. *International Business Review*, 28(5). <https://doi.org/10.1016/j.ibusrev.2018.03.005>.



- Owusu, G. M. Y., Bekoe, R. A., Addo-Yobo, A. A., and Otioku, J. (2021). Mobile Banking Adoption Among The Ghanaian Youth. *Journal of African Business*, 22(3), 339–360. <https://doi.org/10.1080/15228916.2020.1753003>.
- Puriwat, W., and Tripopsakul, S. (2017). The Impact Of E-Service Quality on Customer Satisfaction and Loyalty in Mobile Banking Usage: Case Study of Thailand. *Polish Journal of Management Studies*, 15(2), 183–193. <https://doi.org/10.17512/pjms.2017.15.2.17>.
- Rahman, A., Muhamudul Hasan, and Mia, A. (2017). Mobile Banking Service Quality And Customer Relationships. *International Journal of Bank Marketing*, 35(7), 1066–1087. <https://doi.org/10.1108/IJBM-10-2015-0150>.
- Rithmaya, C. L. (2016). Pengaruh Kemudahan Penggunaan, Kemanfaatan, Sikap, Risiko Dan Fitur Layanan Terhadap Minat Ulang Nasabah Bank Bca Dalam Menggunakan Ininternet Banking. *Jurnal Riset Ekonomi Dan Manajemen*, 16(1), 160. <https://doi.org/10.17970/jrem.16.160110.id>.
- Rivaldo, Y., Kamanda, S. V., and Yusman, E. (2022). *The Influence Of Brand Image, Promotion And Trust On Customer Loyalty At Bank BSI Nagoya Batam Branch*. 6(36), 2385–2392.
- Roy, S. K., Shekhar, V., Lassar, W. M., and Chen, T. (2018). Customer Engagement Behaviours: The Role Of Service Convenience, Fairness And Quality. *Journal of Retailing and Consumer Services*, 44(December 2017), 293–304. <https://doi.org/10.1016/j.jretconser.2018.07.018>.
- S, S. J., and Kavitha, P. D. M. (2019). *A Study On Mobile Banking And Customer Loyalty*. 8(10), 405–410.
- Shankar, A., and Rishi, B. (2020). Convenience Matters In Mobile Banking Adoption Intention? *Australasian Marketing Journal*, 28(4), 273–285. <https://doi.org/10.1016/j.ausmj.2020.06.008>.
- Singh, S., and Srivastava, R. K. (2018). Predicting The Intention To Use Mobile Banking In India. *International Journal of Bank Marketing*, 36(2), 357–378. <https://doi.org/10.1108/IJBM-12-2016-0186>.
- Son, Y., Kwon, H. E., Tayi, G. K., & Oh, W. (2020). Impact Of Customers' Digital Banking Adoption On Hidden Defection: A Combined Analytical–Empirical Approach. *Journal of Operations Management*, 66(4), 418–440. <https://doi.org/10.1002/joom.1066>.
- Suariedewi, I. G. A. A. M. (2020). Effect Of Mobile Service Quality To E-Trust To Develop E-Satisfaction And E-Loyalty Mobile Banking Services. *International Research Journal of Management, IT and Social Sciences*, 7(1), 185–196. <https://doi.org/10.21744/irjmis.v7n1.836>.
- Top Brand Awards. (2021). Mobile Banking Fase 1 2021. <https://www.topbrandaward.com/en/2021/02/mobile-banking-fase-1-2021/>.
- Walfajri, M., and Wahyu T. Rahmawati. (2021). Nilai Transaksi Digital Banking Meningkatkan. *Keuangan Kontan*. <https://keuangan.kontan.co.id/news/nilai-transaksi-digital-banking-meningkat-4672-di-september#:~:text=Adapun jumlah transaksi mobile banking, triliun hingga kuartal ketiga 2021.>
- Zhang, L. L., and Kim, H. K. (2020). The Influence Of Financial Service Characteristics On Use Intention Through Customer Satisfaction With Mobile Fintech. *Journal of System and Management Sciences*, 10(2), 82–94. <https://doi.org/10.33168/jsms.2020.0206>.

