



Digital Smart Branch Innovation: Increase Customer Satisfaction and Loyalty Through Quality Service

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ABSTRACT

The development of the situation and business conditions of the banking industry in the future will be more competitive. Therefore, the banking world is required to show better performance to create synergy and provide high value to customers so that it can result in customer loyalty to the bank and is the main key for banks to be able to compete with other banks. The purpose of this study is to re-analyze the effect of digitalization of smart branch services, and service quality, on customer loyalty with customer satisfaction as a mediation variable. The method used in determining the number of samples in this study is non-probability sampling. After all, the population of researchers is not limited or unclear, to save work time, energy, and costs because the population of researchers is limited to the category of researchers. Respondents in this study were 80 Org. The data was analyzed using the Partial Least Squares (PLS) Technique. The results of this study show that digitalization of smart branch services has a negative and insignificant effect on customer loyalty but has a positive and significant effect on customer satisfaction, service quality has a positive and significant effect on customer satisfaction and customer loyalty, and customer satisfaction can mediate the influence of digitization of service and service quality on customer loyalty. The results of this study can be used as a reference for increasing Bank Mandiri customer loyalty.

INTRODUCTION

Today the development of the banking industry in Indonesia is very rapid, even competition in the banking industry is very tight, and the number of banks is increasing, making people more flexible in choosing banks. Banks as Indonesian financial institutions are the largest intermediaries in the financial system, create money, and are very important in determining economic activity. The development of the situation and business conditions of the banking industry in the future will be more competitive. Therefore, the banking world is required to show better performance to

create synergy and provide high value to customers. Banks that can create high value for their customers will be able to generate customer loyalty to the bank and are the main key for banks to be able to compete with other banks. Assauri (2018) said that customer loyalty is key to the success of the marketing business in the long run. So, banks need to continue to create customer loyalty, which is one of the factors that need to be considered by the company, and the very dominant of customer loyalty is satisfied customers. Satisfaction according to Sunyoto (2015) is the level of a person's feelings after comparing (performance or results) that are felt compared to his expectations. Customer loyalty is related to customer satisfaction, because loyalty will be created if the customer feels satisfied with the bank, the level of customer satisfaction is a comparison between the value of services received with what the customer is expected to receive (Kotler, 2016). Research Fitriana Fitriana, et al (2017) found that satisfaction has a positive and significant influence on customer loyalty. Providing satisfaction and loyalty for customers requires banks to continue to develop and improve of products and services offered to customers. One form of development carried out by banks is to apply and utilize digital technology in their business processes and also in the manufacture of banking products and services offered to customers. Digital transformation continues to be carried out by banks to improve services to customers.

Bank digitalization is very important because it can affect customer satisfaction and loyalty as stated by Komulainen and Saraniemi (2019) a service that can be embedded in the customer's mind when making transactions will form a positive experience for customers that helps companies develop and differentiate their services among competitors. So that after the value can be formed, it will increase customer satisfaction and loyalty to the financial institution. This research is in line with research conducted by Halfi Nadila (2020) research results that bank digitalization has a positive and significant effect on customer satisfaction.

In addition to digitalization, it affects satisfaction, it also affects customer loyalty, because, with digitalization, banks are banking services that utilize digital technology to meet the needs of their customers. With the transformation of services to digital, customers feel safer and more comfortable in transactions. Research by Hassan, Iqbal, and Habibah (2020) and Angela, Elvira Ayu (2020) states that bank digitalization has a significant positive effect on customer loyalty. In addition to bank digitalization carried out to provide satisfaction and loyalty for customers, every success must provide maximum service quality. Service quality affects customer satisfaction, this is under Dimiyati's (2018) theory that service quality is quality as the totality of the characteristics of a product or service related to the ability to satisfy expressed or implied. Service quality is a dynamic condition that affects products, services, people, processes, and environments that meet or exceed expectations (Tjiptono, 2002). Elizabeth and Pramuditha's research (2018) states that service quality has a significant positive effect on customer satisfaction. Similarly, Pravasanti and Tho'in's (2018) research states that service quality has a significant positive effect on customer satisfaction. Research conducted by Astuti and Respati (2015), and Wardhana, Hudayah, and Wahyuni (2017) states that service quality has a significant positive effect on customer loyalty. Good service will give a good impression to customers. This commitment to customer satisfaction is what encourages companies engaged in the banking industry to compete to provide optimal service quality. The impact of forming customer satisfaction can create loyalty for customers, this will be very beneficial for the bank because customers who have loyalty indirectly can be marketing by providing positive information and recommendations to others.

Wardana (2018) states that satisfaction significantly mediates the influence of digitalization on loyalty. While research conducted by Agusta and Dedy (2011) shows that, customer trust and satisfaction affect customer loyalty with a very close correlation level. Wardana (2018) states that satisfaction significantly mediates the influence of digitalization on loyalty. Agusta and Dedy (2011) show that customer trust and satisfaction affect customer loyalty with a very close correlation. Banks that want to implement customer satisfaction programs must have quality services and superior services because with customer satisfaction customer loyalty can be created which will

later end in greater sales volume, more productive assets, and higher return on investment (Hasan, 2008).

One of the banks that also competes in winning the hearts of customers is Bank Mandiri. As a company engaged in banking services, to anticipate increasingly competitive and fierce competition and to increase the number of customers, Bank Mandiri needs to improve service quality. As a leader in the banking industry, Bank Mandiri continues to make breakthroughs in the use of technology to create a new business engine and is committed to providing the best service for customers and contributing to supporting Indonesia's economic growth by rolling out the Mandiri Smart Branch. In 2022, Bank Mandiri simultaneously launched 241 Smart Branches spread across 89 Cities/Regencies and 29 Provinces throughout Indonesia to provide fast and seamless banking services by prioritizing the role of technology which is also integrated with Livin by Mandiri and Kopra by Mandiri. This product can process various financial needs of customers in branches to be faster, more practical, and more reliable. This Smart Branch innovation has a customer-oriented service concept or is customer-centric.

Smart Branch is a digital transformation from conventional branches. Smart Branch by Mandiri comes into 3 types of branches, namely Digital Box, Hybrid Branch, and Upgrade Branch which are tailored to the character of customer needs. Various conveniences are presented through Smart Branch which is integrated with Livin, Kopra, Cash Recycler Machine, Customer Service Machine, and other Bank Mandiri service networks. This highly comprehensive digitalized service is not owned by many banks.

These efforts are carried out by Bank Mandiri solely to improve services that will later cause customer satisfaction and loyalty. With a large number of customers, Bank Mandiri has a big challenge to continue to provide maximum service quality for customer satisfaction so that customers feel comfortable using services from the bank. The presence of Bank Mandiri's digital services has been able to meet customer transaction needs with an increasing number of customers and has proven successful in recording a transaction value of Rp. 2,435Tn in 2022 (Bankmandiri.co.id).

Denpasar City is the capital of the province which is experiencing population growth and development and the pace of development in all fields continues to increase, having a huge influence on the city itself. Similarly, Denpasar City, which is the capital of Bali province, is experiencing such rapid growth. Bank Mandiri Smart Branch branches are mostly located in the Denpasar Area which has a large number of customers compared to Bank Mandiri Smart Branch Branches in other areas in Bali. Based on observations, this phenomenon shows that satisfying customer desires is not an easy matter, the services and facilities offered by Bank Mandiri are satisfactory but it is necessary to make various innovations, to increase customer satisfaction, as well as customer willingness not to move to other banks. Seeing the conditions mentioned above, it is necessary to conduct a study on the effect of digitalization of Smart Branch services on customer loyalty through customer satisfaction.

LITERATURE REVIEW

Customer Satisfaction

Customer satisfaction is a vital element that marks the success of a business, not least in the banking industry (Pakurár et al., 2019). Various literature studies confirm that the implementation of Smart Branch digital innovation can significantly increase the level of customer satisfaction. By providing easier access through an online platform, faster service, and a more personalized experience in physical branches, Smart Branches provide significant added value for customers. Factors such as the availability of complete online services, ease of access to various banking products and services, and the responsiveness of services provided by banks are important determinants in increasing the level of customer satisfaction (Dwinurpitasari, 2019).

As competition increases in the banking industry, it is important for banks to understand that customer satisfaction is not only related to the ease of transactions, but also to the overall

experience they experience during their interaction with the bank. Smart Branch digital innovation opens up opportunities for banks to provide a more personalized experience focused on customers' individual needs. By quickly customizing services and providing relevant solutions, banks can strengthen relationships with their customers, ensure long-term loyalty, and differentiate themselves in an increasingly competitive market (Adam et al., 2023).

Customer Loyalty

Customer loyalty is the foundation of business continuity, as loyal customers tend to maintain a long-term relationship with the brand and contribute significantly to the company's profitability. Various studies confirm that the positive experience provided by Smart Branch in the banking industry drives an increase in customer loyalty levels. Factors such as consistency in providing satisfactory service, building trust by providing reliable solutions, and ease of use of technology are the main determinants in strengthening the emotional bond between customers and banks (Liempepas & Sihombing, 2019).

When customers feel that their needs and wants are well understood and catered for by the bank, they tend to remain loyal and even become strong brand advocates. Therefore, it is important for banks to continuously improve the customer experience at Smart Branch by prioritizing aspects such as responsive service, operational perfection, and seamless technology integration. By building strong relationships and providing consistent added value to customers, banks can ensure that customer loyalty is not only maintained, but also becomes a driving force for the growth and sustainability of their business (Eva Sundari & MM, 2021).

Quality Service

Quality service is the main foundation that influences customer satisfaction and loyalty in the banking industry. Research (Latifah, 2023) confirms that Smart Branch digital innovation is able to improve service quality in various ways, including speeding up the transaction process, increasing accuracy, and providing more personalized solutions to customers. By combining advanced technologies such as artificial intelligence and data analytics, Smart Branch can provide more efficient and responsive services, in line with the expectations of today's customers who demand ease and speed in transactions.

Other factors that affect the quality of service at Smart Branch include adequate employee training, good system integration between various technology platforms, and adoption of technology that suits customer needs. Good training will ensure that employees can provide services to a high standard and handle various situations well, while effective system integration will ensure smooth workflow and consistency in customer experience across multiple service channels (Rohman & Kustiwi, 2024). With a focus on consistent quality service, Smart Branch can strengthen the bank's brand image, increase customer satisfaction, and build strong relationships with loyal customers.

METHODS

This research is quantitative and associative with a form of causal relationship. Associative research is used to determine the influence or relationship between two or more variables (Sugiyono, 2017: 57). The quantitative approach used in this study is the survey method. In survey research, information is collected from respondents using questionnaires. Generally, survey research is limited to studies whose data are collected from a sample of the population to represent the entire population.

This research was conducted at Bank Mandiri Smart Branch Denpasar City with respondents managed by Bank Mandiri Smart Branch Denpasar City Branch. The reason for choosing the location of Bank Mandiri Smart Branch in Denpasar is because Denpasar City is the capital of Bali Province as one of the cities in Bali with the most Smart Branch branches. In addition, Denpasar City is the center of the economy and industrial development.

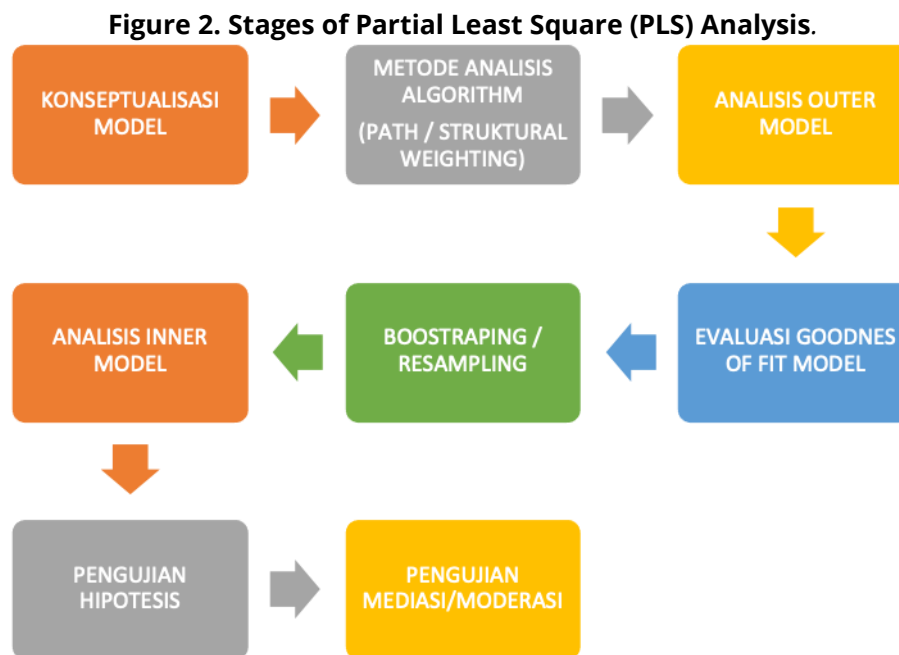
Figure 1. Bank Mandiri Smart Branch

The method used in determining the number of samples in this study is using nonprobability sampling i.e. sampling techniques that do not provide equal opportunities or opportunities for every member of the population selected to be sampled. The methods used are Accidental Sampling (Sugiyono, 2017). The selection criteria for this research sample are Bank Mandiri customers who make transactions at Smart Branch branches in Denpasar City. Researchers use non-probability sampling. After all, the population of researchers is not limited or unclear, to save work time, energy, and costs, because the research population is limited to the category of researchers (Yulianto & Tanamal, 2019: 55). In determining the minimum number of samples, researchers use the formula set by Hair et.al because the population is unknown. According to Hair et.al (2010: 101) determining the number of samples requires about 5-10 times the number of indicators in the study, if the number of samples is too large it will be difficult to get measurements of goodness-of-fit. According to (Hair et al., 2014) The sample required in the study using the PLS-SEM approach can be declared valid if it has respondents between 30 to 100 people. Researchers used references from Roscoe (Ferdinand, 2014) and (Haryono, 2017) which state that the SEM analysis has a sample size of 5 times the number of indicators.

This study used a questionnaire distributed directly by researchers through a web-based digital questionnaire (google form) to customers of Bank Mandiri Smart Branch in Denpasar City who always make deposits, withdrawals, and remittance transactions. Data collection using questionnaires through Google Forms is planned to take 2 weeks until the minimum number of respondents is met. The link will be shared via barcode scanning, targeting customers who come to make transactions at Bank Mandiri Branch Smart Branch. The author will also do a giveaway to get a higher response rate or questionnaire feedback. In this questionnaire, researchers used the Likert scale. Questionnaires are distributed to Bank Mandiri customers Smart Branch in Denpasar City with a Likert scale of 1-10. Likert scale with a score of 1-10 has a score movement from 1 to 10 with the following format (Syofian et al., 2015). There are ten alternative answers, all of which are then suspended and transformed into interval-scale data. The higher the score (close to 10), the more positive the respondent's perception. The lower the score (close to 1), the more negative the respondent's perception.

The analysis technique used is the SEM test (Structural Equation Model) with alternative Software Smart PLS 3.2 because this study is more predictive and explains latent variables than testing a theory, and the number of samples in the study is not large. According to (Ghozali, 2015), the stages of analysis using-SEM are divided into 5 stages, where each stage will affect the next stage, the stages are (1) conceptualization of the model, (2) determining the algorithm analysis method, (3) determining the sampling method, (4) drawing a path diagram and (5) evaluating the model (inner & outer model). The evaluation of structural models (inner model), can be tested directly hypothetically by looking at the path coefficient (path coefficient) that describes the

strength of relationships between variables. To assess the significance path coefficient can be seen from the T-Test (critical ratio) obtained from the process bootstrapping (resampling method). In this study using test t-statistic (t-test) or C.R (critical ratio) with a significance level of 5 percent (0.05), it means that the test result or value shows a value t-statistic must be greater than or equal to t-table i.e. (>1.96) and p-value smaller or equal to t-value (<0.05) then the results of testing the hypothesis are acceptable and significant. These steps, when depicted in a flowchart, look like this:



RESULTS

To test the hypothesis and produce a viable model (fit), this study uses Partial Least Square (PLS) 3.0. The PLS approach is most appropriate to use if the structural model to be analyzed meets the recursive model and the latent variables have indicators that are formative, reflexive, and mixed. In PLS there are terms inner model and outer model. The inner model is a structural model of relationships between latent variables, while the outer model is a measurement model (reflexive or formative). The structural model or inner model is evaluated by looking at the percentage of variance described i.e. by looking at R^2 (R-square exogenous variable) for the dependent latent construct using the size of the Stone-Geisser Q Square test and looking at the magnitude of the structural path coefficient. This estimation and stability are evaluated using t-statistical tests obtained through bootstrapping procedures.

Design of structural models in PLS based on theory (if it already exists), empirical research results, adoption from other sciences, normative, and rational. The design of structural models of relationships between latent variables in PLS is based on problem formulations or research hypotheses so that PLS allows exploring relationships between latent variables. The theoretical model that has been built in a conceptual framework is then drawn in a flowchart that serves to show the relationship between exogenous and endogenous variables to be tested. The outer model is the specification of the relationship between latent variables and their indicators, also called outer relations or measurement models, defining construct characteristics with manifest variables.

Correlation between reflexive indicator scores and latent variable scores. This study using a loading of 0.50 to 0.60 is considered sufficient because it is the initial stage of developing a measurement scale and the number of indicators per construct is not large, which ranges from three to four indicators.

Table 1. Convergent Validity Test Results

	Service Digitization (X1)	Quality of Service (X2)	Customer Satisfaction (Y1)	Customer Loyalty (Z1)
X1.2	0,885			
X1.3	0,885			
X1.4	0,854			
X1.5	0,744			
X2.1		0,851		
X2.2		0,842		
X2.3		0,839		
X2.4		0,856		
X2.5		0,845		
Y1.2			0,787	
Y1.3			0,854	
Y1.4			0,839	
Y1.5			0,843	
Z1.1				0,847
Z1.2				0,890
Z1.3				0,843
Z1.4				0,866

Source: Primary data processed, 2023

Based on the table above, it can be seen that all values on the convergent validity test are greater than 0.60. Thus, it can be stated that the data in the study are valid. Measurement of reflexive indicators based on cross-loading with its latent variables. If the cross-loading value of each indicator of the variable concerned is greater than the cross-loading of other variables, then the indicator is said to be valid. The value of discriminant validity is greater than 0.5, so the latent variable has become a good comparison for the model.

Table 2. Discriminant Cross-Loading Validity Test Results

	X1	X2	Y1	Z1
X1.2	0.885	0.552	0.502	0.218
X1.3	0.885	0.552	0.502	0.218
X1.4	0.854	0.554	0.536	0.268
X1.5	0.744	0.55	0.787	0.414
X2.1	0.431	0.851	0.52	0.445
X2.2	0.602	0.842	0.596	0.333
X2.3	0.558	0.839	0.57	0.357
X2.4	0.707	0.856	0.639	0.471
X2.5	0.495	0.845	0.513	0.459
Y1.2	0.744	0.55	0.787	0.414
Y1.3	0.613	0.604	0.854	0.362
Y1.4	0.533	0.547	0.839	0.408
Y1.5	0.523	0.532	0.843	0.501
Z1.1	0.277	0.401	0.418	0.847
Z1.2	0.254	0.38	0.439	0.89
Z1.3	0.312	0.316	0.421	0.843
Z1.4	0.379	0.554	0.466	0.866

Source: Primary data processed, 2023

Another method is by comparing the square root of the average variance extracted (AVE) value of each construct with the correlation between other constructs in the model, it can be concluded that the construct has a good discriminant validity value or vice versa. Therefore, it is recommended that the measurement value should be greater than 0.50.

Table 3. Convergent AVE Validity Test Results

	Average Variance Extracted (A VE)
Service Digitization (X1)	0,712
Quality of Service (X2)	0,716
Customer Satisfaction (Y1)	0,691
Customer Loyalty (Z1)	0,743

Source: Primary data processed, 2023

Based on the table above it can be seen that all AVE values convergent validity is greater than 0.5. Thus it can be stated that the data in the study are valid.

In this study, reliability tests used Cronbach Alpha parameters and composite reliability. The reliability test results of Cronbach Alpha and Composite reliability show that the values of all constructs are greater than the minimum limit of Cronbach Alpha and composite reliability (greater than or equal to 0.7. Based on reliability tests using Cronbach Alpha and composite reliability, the parameter values of all constructs are above 0.7. Thus, reliability tests using Cronbach alpha and composite reliability of all constructs have good internal consistency for use in this model test.

Table 4. Construct Reliability Test Results

	Cronbach's Alpha	Composite Reliability
Service Digitization (X1)	0,870	0,908
Quality of Service (X2)	0,901	0,927
Customer Satisfaction (Y1)	0,850	0,899
Customer Loyalty (Z1)	0,885	0,920

Source: Primary data processed, 2023

The measurement uses the R-Square latent dependent variable with the same interpretation as regression; Q-Square predictive relevance for construct models, measuring how well observational values are generated by the model and also the estimation of its parameters. A Q-Square value of > 0 indicates the model has predictive relevance; conversely, a Q-square value < 0 indicates that the model lacks predictive relevance. Assuming the data is distributed free, the structural model of the Partial Least Square (PLS) predictive approach is evaluated with R-Square for the dependent construct, instead of the Q-Square test for predictive relevance.

The R-square value is used to later calculate the Q-square value which is a test of the goodness of fit model. In addition, the R-square also serves to find out how much (%) the influence of the independent variable on the dependent variable, the range of R-square values is 0-1. If the R-square value is close to 0, then the weaker the influence of the independent variable on the dependent variable, on the contrary, if it is close to 1, the stronger the influence of the independent variable on the dependent variable.

Table 5. R-square Test Results

	R Square	R Square Adjusted
Customer Satisfaction (Y1)	0,627	0,617
Customer Loyalty (Z1)	0,308	0,281

Source: Primary data processed, 2023

Based on the table above, the R-square value for the variables of service digitalization, service quality, and customer loyalty to customer satisfaction is 0.617 which shows that it has a large influence of $0.617 \times 100\% = 61.7\%$. The R-square value for the variables of service digitalization, service quality, and customer satisfaction with customer loyalty is 0.281 which shows that it has a large influence of $0.281 \times 100\% = 28.1\%$.

Inner model testing is done by looking at the Q-square value which is a test of the goodness of fit model. If the Q-square value is greater than 0 (zero) it indicates that the model has a predictive relevance value, while the Q-square value less than 0 (zero) indicates that the model lacks predictive relevance. However, if the calculation results show a Q-square value of more than 0 (zero), then the model deserves to be said to have a relevant predictive value. The Q-square calculation can be seen as follows:

$$Q^2 = 1 - [(1-R^2_1)(1-R^2_2)]$$

$$Q^2 = 1 - [(1-0,6172)(1-0,2812)]$$

$$Q^2 = 1 - [(0,62)(0,992)]$$

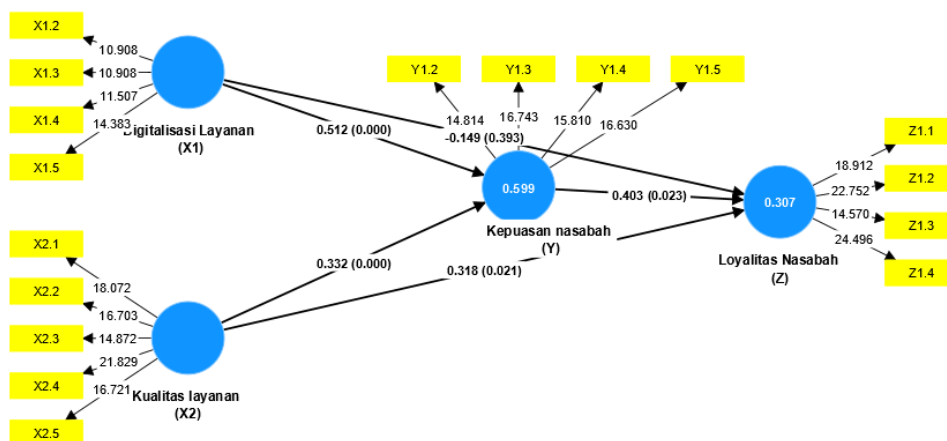
$$Q^2 = 1 - (0,615)$$

$$Q^2 = 0,385$$

Based on the calculation above, a Q-square value of 0.99 is obtained more than 0, so it can be concluded that the model has a predictive relevance value or the model deserves to be said to have a relevant predictive value.

Testing the hypothesis of direct influence using Partial Least Square (PLS) will show five hypotheses. This test is performed using a t-test (t-test) on each path of influence between variables. In PLS, statistical testing of each hypothesized relationship is carried out using simulations. In this case, the bootstrap method is performed against the sample. Bootstrapping testing is also intended to minimize the problem of research data abnormalities. The results of empirical model analysis of research using Partial Least Square (PLS) analysis can be seen in Figure 3 below.

Figure 3. Empirical Model of Research Variables



In Figure 3, it is explained that digitalization of services has a direct effect on customer satisfaction with a coefficient of 0.512, and service quality has a direct effect on customer satisfaction with a coefficient of 0.332. Digitalization of services has a direct effect on customer loyalty with a coefficient of -0.149, service quality has a direct effect on customer satisfaction with a coefficient of 0.318. Digitalization of services has a direct effect on customer loyalty with a

coefficient of 0.403. The results of direct influence testing by bootstrapping from PLS analysis can be seen in Table 6.

Table 6. Direct Effect Test Results

	Path coefficient	T Statistics	P Values	Information
Service Digitalization (X1) - Customer Satisfaction > (Y)	0,512	7,475	0,000	Significant
Service Digitalization (X1) -> Customer Loyalty (Z)	-0,149	1,011	0,315	Insignificant
Quality of Service (X2) -> Customer Satisfaction (Y)	0,332	3,672	0,000	Significant
Quality of Service (X2)-> Customer Loyalty (Z)	0,318	2,432	0,017	Significant
Customer Satisfaction (Y) -> Customer Loyalty (Z)	0,403	2,441	0,016	Significant

Source: Primary data processed, 2023

Hypothesis testing on the effect of Service Digitalization on customer satisfaction resulted in a correlation coefficient value of 0.512, that service digitalization has a positive effect on customer satisfaction. A P-value of 0.000 which is smaller than 0.05 ($0.000 < 0.05$) shows that Service Digitalization has a significant effect on Customer Satisfaction. Thus, hypothesis 1 (H 1) which states that Service Digitalization has a positive and significant effect on customer satisfaction is accepted. banking digitalis has a unidirectional relationship with customer satisfaction, showing that the better the banking digitalise will make customer satisfaction higher This statement is reinforced by the results of previous research which stated that there is a significant influence between digital banking on banking customer satisfaction (Mbama & Ezepue, 2018; Vebiana, 2018). The results of the research examined by this author prove as well as show that the role of branch offices can be replaced with digital services. The results of this study are also in line with research conducted by Salsabila (2023) stating that banking digitalise has a significant effect on customer satisfaction. the city of Bandung. Better the banking digitalise will make customers more satisfied.

Testing the hypothesis on the effect of service digitalization on customer loyalty resulted in a correlation coefficient value of -0.149, then service digitalization negatively affects customer loyalty. A P-value of 0.315 greater than 0.05 ($0.315 > 0.05$) indicates that the digitalization of services does not have a significant effect on customer loyalty. Thus, hypothesis 2 (H 2) which states that the work environment has a negative and insignificant effect on employee performance is accepted. So, in this study, hypothesis 2 has not been accepted. These results explain that customers have not utilized and used digital-based banking service facilities optimally for financial transactions. This also means that increasing banking digitalization is indicated to have a very low effect on customer loyalty. Several things make the variable of service digitization not affect customer loyalty based on observations in the field. The segment of respondents is mostly a productive age category. Therefore, it can be said that there are still concerns of customers if the security of the data provided will be misused by service providers so there is still a lack of interest in using the Bank's digitalization services.

Hypothesis testing on the effect of service quality on customer satisfaction resulted in a correlation coefficient value of 0.332, then service quality had a positive effect on customer satisfaction. A P-value of 0.000 which is greater than 0.05 ($0.000 < 0.05$) indicates that service quality has a significant effect on customer satisfaction. Thus, hypothesis 3 (H 3) which states that service quality has a positive and significant effect on customer satisfaction is accepted. This means that with the maximum and good quality of service felt by customers or Bank Mandiri

Smart Branch Branches that have succeeded in building customer satisfaction. This statement is reinforced by the results of research conducted by Pravasanti and Tho'in (2018) stating that service performance has a significant positive effect on customer satisfaction. The results of this study are also in line with the results of previous research conducted by Widya Amrita (2022) which showed that service quality has a positive and significant effect on customer satisfaction, which means that increasing service quality will increase customer satisfaction.

Hypothesis testing on the effect of service quality on customer loyalty resulted in a correlation coefficient value of 0.318, then service quality had a positive effect on customer satisfaction. A P-value of 0.017 that is greater than 0.05 ($0.017 < 0.05$) indicates that service quality has a significant effect on customer loyalty. Thus, hypothesis 4 (H 4) which states that service quality has a positive and significant effect on customer satisfaction is accepted. This means that the services provided to customers show good and optimal performance, which has an impact on increasing customer loyalty. This can happen because customers tend to consider their personal experience in determining whether to return to hand over transaction matters and financial management to the same bank or instead move to another bank. The results of this study are also in line with the results of research conducted by Syafira Ulfa (2018) which states that there is a direct positive and significant influence on service quality on customer loyalty. This statement is reinforced by the results of research from Cut Lisa, et al. (2019) which states that service satisfaction affects customer loyalty. The results of this study are also in line with the research of Ratna Rahmawati (2016), Rizal (2019) and Iskanadar (2012) explained that the variable of service quality has a positive and significant effect on customer satisfaction.

Testing the hypothesis on the effect of customer satisfaction on customer loyalty resulted in a correlation coefficient value of 0.403, then customer satisfaction had a positive effect on customer loyalty. A P-value of 0.016 which is greater than 0.05 ($0.016 < 0.05$) indicates that customer satisfaction has a significant effect on customer loyalty. Thus, hypothesis 5 (H 5) which states that customer satisfaction has a positive and significant effect on customer loyalty is accepted. This shows that loyalty is influenced by customer satisfaction. This shows that customer satisfaction with the services provided has been felt by customers with the creation of customer satisfaction will have a positive impact on the company, one of which is to encourage customers to become loyal or buy bank products again. The more customer satisfaction is felt, the higher customer loyalty. The results of this study are also in line with research conducted by Nurhayati and Fatmasaris (2016) which shows that satisfaction has a positive effect on loyalty, the higher the satisfaction given to food customers, the higher their loyalty to the Bank. The results of this study are reinforced by research conducted by Reza et al., (2020) which states that customer satisfaction has a positive and significant effect on customer loyalty. This is because customer satisfaction is one of the factors that can affect the level of customer loyalty, where customers who are satisfied with the services provided by the bank tend to reuse the service in the future, making customers loyal to the bank. This result is also in line with previous research conducted by Ali Arifin et al., (2018) which proved a positive and significant influence between customer satisfaction and customer loyalty. In Sudirman and Suasana's (2018) research, it is stated that there is a significant positive influence on customer satisfaction with customer loyalty.

SmartPLS 3 has included the results of calculating indirect effects which are useful in analyzing the strength of mediator variable relationships with other variables. Mediation occurs when a variable affects the relationship between the independent variable and the dependent variable. Changes in the independent variable cause changes in the mediator variable and eventually cause changes also in the dependent variable. In this paper, the author uses a simple mediation model, that is, there is only one mediator variable. To analyze this simple mediation model, the authors adopt a plot created by Zhao, Lynch, & Chen (2010).

Figure 4. Simple Mediator Model

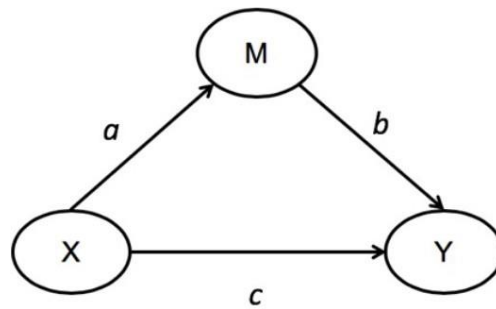
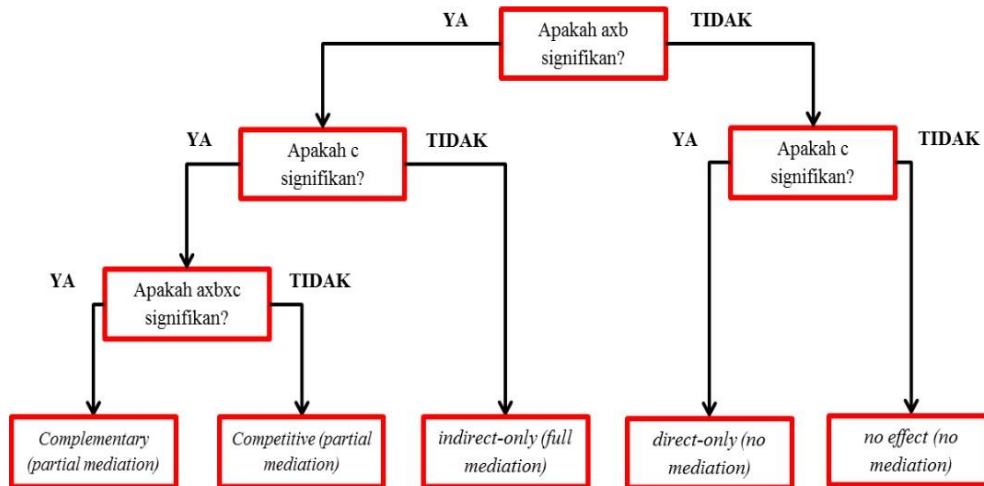


Figure 4 is a simple mediator model. Mediation effect analysis utilizes values: c is a direct effect, multiplication between $a \times b$ equals indirect effect, and $c + (a \times b)$ equals total effect. These values are automatically calculated by the SmartPLS 3 application when the bootstrapping procedure is executed and after performing hypothesis tests. The results of the calculations mentioned above are then included in the analysis flow as follows:

Figure 5. Mediation Grouping Analysis Flow



Zhao et al., (2010) divided the mediating effect into five groups, namely: (1) Complementary (partial mediation) when $a \times b$ is significant, c is significant, and $a \times b \times c$ is significant, (2) Competitive (partial mediation) if $a \times b$ is significant, c is significant, but $a \times b \times c$ is not significant, (3) Indirect-only (full mediation) if $a \times b$ is significant, but c is not significant, (4) Direct-only (no mediation) when $a \times b$ is not significant, but c is significant, (5) No effect (no mediation) when $a \times b$ is insignificant, c is insignificant. Based on Figure 5, the calculation of the mediation effect can be done, with the table below showing the results of the calculation of the total effect.

Based on Table 7, it can be seen that the construct of job satisfaction can mediate between digitalization and customer loyalty. This can be seen from the indirect effect value of 0.206 (significant) and direct effect of -0.149 (insignificant), with the status of the perfect mediation effect (fully mediation). The sixth hypothesis states that the influence of digitalization of services on customer loyalty through customer satisfaction is proven. This proves that indeed the role of technology in economic activity increasingly has a beneficial impact if it can utilize it as much as possible. With the e-channel facility that increasingly accommodates customer needs in transactions, it has been able to provide an impressive experience for customers in making transactions that are easy and comfortable regardless of distance and time. This is in line with the results of research conducted by Oktarini and Wardana (2018) stating that satisfaction significantly

mediates the effect of digitalization of smart branch services on customer loyalty.

Table 7. Results of the Mediation Hypothesis Test

Notasi (ax)	Indirect effect (nilai axb)	Direct effect (nilai c)	Status of mediation effects
(Service Digitalization -> customer satisfaction) (customer satisfaction-> customer loyalty)	0,206	-0,149	Complementary (fully mediation)
Quality of service -> Customer satisfaction) (customer satisfaction- customer loyalty)	0,134	0,318	Complementary (partial mediation)

Source: Primary data processed, 2023

Based on Table 7, it can be seen that the construct of customer satisfaction can mediate between the construct of service quality and customer loyalty. This can be seen from the indirect effect value of 0.134 (significant) and direct effect of 0.318 (significant), with complementary mediation effect status (partial mediation). The seventh hypothesis states that the influence of service quality on customer loyalty through job satisfaction is proven. Customer satisfaction is proven to play a role in the relationship between service quality and customer loyalty because if the services provided to customers always show consistent performance from time to time or even exceed customer expectations, customers will always enjoy the service on an ongoing basis. If the service performance shown at least meets customer expectations, the customer will feel satisfied and if the satisfaction is continuously maintained, it will have an impact on customer loyalty. The more satisfied the customer is with the services provided, will affect the customer's desires to reuse the same service. If the quality of service is getting better, this will have an impact on increasing customer satisfaction and indirectly can also contribute to increasing customer loyalty. The results of this study are in line with the results of research conducted by UI Haq and Awan (2020) which said customer satisfaction mediates the relationship between service quality and customer loyalty. The results of this study are reinforced by the results of research conducted by Syafira Ulfa (2018) and Widnyana et al., (2021) which state that there is a positive and significant influence between service quality on customer loyalty and customer satisfaction as an intervening variable.

DISCUSSION

In this study, Partial Least Square (PLS) 3.0 was used to test the hypothesis and produce a viable model. The PLS approach is most suitable to be used if the structural model to be analyzed meets the recursive model and the latent variables have indicators that are formative, reflexive, and mixed. In PLS, there are terms inner model and outer model. The inner model is a structural model of the relationship between latent variables, while the outer model is a measurement model (reflexive or formative). The structural model or inner model is evaluated by looking at the percentage of variance described, i.e. by looking at R2 (R-square of the exogenous variable) for dependent latent construction using the Stone-Geisser Q Square test and looking at the magnitude of the structural path coefficient. Estimation and stability were evaluated using statistical tests t obtained through bootstrapping procedures.

Design of structural models in PLS based on theory (if it already exists), empirical research results, adoption from other sciences, normative, and rational. The design of structural models of relationships between latent variables in PLS is based on problem formulations or research hypotheses so that PLS allows exploration of relationships between latent variables. The theoretical model that has been built in a conceptual framework is then illustrated in a flow chart

that serves to show the relationship between exogenous and endogenous variables to be tested. Outer model is the specification of the relationship between latent variables and their indicators, also referred to as outer relationships or measurement models, which defines the characteristics of construction with manifest variables.

Correlation between reflexive indicator scores and latent variable scores. This study using a load of 0.50 to 0.60 is considered sufficient because it is the initial stage of developing a measurement scale and the number of indicators per construction is not large, which ranges from three to four indicators.

The results of the convergent validity test show that all values on the convergent validity test are greater than 0.60. Therefore, it can be stated that the data in this study are valid. Measurement of reflexive indicators based on cross-loading with latent variables. If the cross-loading value of each indicator of the variable in question is greater than the cross-loading of another variable, then the indicator is considered valid. The value of discriminant validity is greater than 0.5, so the latent variable has become a good comparison for the model.

Another method is to compare the square root of the extracted mean variance (AVE) of each construction with the correlation between other constructions in the model, it can be concluded that the construction has a good discriminant validity value or vice versa. Therefore, it is recommended that the measurement value should be greater than 0.50.

Reliability test using Cronbach Alpha parameters and composite reliability. The results of the Cronbach Alpha reliability test and composite reliability show that the value of all constructions is greater than the minimum limit of Cronbach Alpha and composite reliability (greater than or equal to 0.7). Based on reliability tests using Cronbach Alpha and composite reliability, the parameter values of all constructions are above 0.7. Thus, reliability tests using Cronbach alpha and composite reliability of all constructs have good internal consistency for use in testing this model.

The measurement uses the latent variable R-Square with the same interpretation as regression; Q-Square relevance predictions for construction models, measuring how well observational values are generated by the model and also parameter estimations. A value of $Q\text{-Square} > 0$ indicates the model has a predictive relevance value; conversely, a $Q\text{-square value} < 0$ indicates that the model lacks predictive relevance. Assuming the data is freely distributed, the structural model approximates the predicted Partial Least Square (PLS) with R-Square for dependent construction, rather than the Q-Square test for predictive relevance. The R-square value is used to then squeeze.

CONCLUSION

Based on the results of the research analysis and the results of the discussion, the conclusions of this study are as follows. Digitalisasi Services have a positive and significant effect on Bank Mandiri Smart Branch customer satisfaction. This means that better banking digitalization will make customer satisfaction higher. Digitalization of services has a negative and insignificant effect on customer loyalty. This means that customers have not utilized and used digital-based banking service facilities optimally for financial transactions. Service quality has a positive and significant effect on customer satisfaction. there is maximum and good service quality felt by customers or Bank Mandiri Smart Branch Branches that have succeeded in building customer satisfaction. Service quality has a positive and significant effect on customer loyalty. The services provided to customers show good and optimal performance, which has an impact on increasing customer loyalty. Customer satisfaction has a positive and significant effect on customer loyalty. This means that the customer is loyal. This shows that loyalty is influenced by mutual satisfaction. This shows that customer satisfaction with the services provided has been felt by customers with the creation of customer satisfaction will have a positive impact on the company, one of which is to encourage customers to become loyal or buy bank products again. Digitalization of services is based on customer loyalty with customer satisfaction. This proves that indeed the role of

technology in economic activity increasingly has a beneficial impact if it can be utilized as much as possible to increase customer loyalty. Service quality affects customer loyalty through customer satisfaction. If the services provided to customers always show consistent performance from time to time or even exceed customer expectations, customers will always enjoy these services on an ongoing basis.

This research indicates the role of Smart Branch Service Digitalization, Service Quality, Customer Satisfaction, and Customer Loyalty. Digitalization of services and service quality in increasing customer satisfaction and customer loyalty cannot be generalized to other Bank Mandiri Smart Branch branches or banks that have different business models. Thus, it is recommended that further researchers conduct research on these variables in other banks with different business models. This study is only limited to examining the variables of digitalization of SMAT branch services, service quality, customer satisfaction, and customer loyalty thus cannot examine more deeply the factors outside these variables. In addition, further researchers can also use a longer time span in researching the digitization of smat branch services, service quality, customer satisfaction, and customer loyalty. This is important to prove further whether these factors can make the company able to better customer loyalty.

SUGGESTION

Based on these findings, it is recommended that Bank Mandiri Smart Branch increase efforts to digitize services to strengthen customer satisfaction. This can be done by identifying areas where use of digital services is still low and developing strategies to increase customer adoption of digital technology. In addition, banks need to focus on improving service quality by providing intensive training to employees and ensuring consistency in providing a good experience to customers. To better understand the long-term impact of digitalization, service quality, satisfaction and customer loyalty, it is recommended to conduct further research involving other banking sectors that have different business models. By doing this, Bank Mandiri can strengthen relationships with customers, increase competitiveness, and ensure long-term success in the ever-evolving digital era.

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