

# **THE IMPACT OF IMPLEMENTING THE DIGITAL TECHNOLOGY INNOVATION ON BANKING PERFORMANCE IN INDONESIA**

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## **ABSTRACT**

*The purpose of this study is to obtain empirical evidence whether customer experience and customer satisfaction affect the financial performance of a bank for users digital banking in Indonesia. The number of samples in this study were 261 respondents. The criteria for respondents in this study are respondents who live in Jakarta, Bogor, Depok, Tangerang and Bekasi and respondents who are users of banking services digital banking. This study uses a non-probability sampling technique. Data collection techniques through questionnaires online. Data analysis using PLS-SEM. The result of the first research is that customer experience has a positive effect on financial performance. Second, customer satisfaction has a positive effect on financial performance.*

**Keywords:** *Financial Performance, Customer Experience, Customer Satisfaction*

## **1. INTRODUCTION**

The rapid development of technology in the world, especially technological developments in the banking sector has a significant impact on bank marketing efforts. In the current pandemic, the use of digital banks has experienced a very significant increase. Digital banking has become the main choice for conducting banking transactions such as transferring a certain amount of money, opening a bank account and others. Digital banking changes the traditional banking model to digitalization, which provides convenience and effectiveness for its users [1]. This shift in model shows that it is important for banks to understand the impact of digital banking on customer experience. Customer is source for any companies. Without it, company doesn't have any revenue, profit and market value. Factors that maintain customer satisfaction among the users of digital banking such as ease of use digital services, fast response of risks, and protection of customer personal data [2], so it can be able to create customer long-term relationships. In addition, the emotional value of sympathy, empathy created in long-term relationships that result in loyalty customer to the bank has a positive impact on the bank's financial performance [3].

One of the Banks in Indonesia that has been increase in digital banking users also known as BCA Bank. Which was increased 28.9 percent on mobile banking user and increased 5.7 percent on internet banking user [4]. Meanwhile, comparing with increased on digital banking user number such as mobile banking or internet banking, the unbankable number was higher than it [5].

The high unbankable number in Indonesia has become the main reason for Indonesia to reviewing and also evaluating toward bank services, so that can reduce number of the unbankable in Indonesia [6]. Therefore, bank should understand what is the factor that will has impact on customer experiences and customer satisfaction which is a consideration in the use of digital banking services.

Meanwhile, customer has good experience toward product use or digital banking services. It Affects to customer satisfaction, that able to form an emotional outcome that is a long-term relationship, where the customer assesses that the product or service has met their expectations and needs so that the customer will be committed to always use digital banking services and also recommend it to others. In this research, the researcher reviews and integrates existing knowledge about customer experience and provides some generalizations about its impact on financial performance of bank. Marketing seeks to maintain accountability it's important for banks to know how the customer experience with profit.

## **Research Objectives**

The purpose of this study is to analyze and determine the effect of customer experience on financial performance of banks, as well as the effect of customer satisfaction on financial performance of banks among the users of digital banking in Indonesia.

## **2. LITERATURE REVIEW**

### **Customer Experience**

According to Chandra [7] customer experience is the customer experience or customer evaluation in a service where the experience mentioned by feelings and social dimensions. This relates to the feeling of satisfaction felt by the customer if the expectations or expectations of the customer are met [8].

### **Customer Satisfaction**

According to Obeng and Mkhize [9]. Customer satisfaction or financial satisfaction [10] is a specific transaction which is an after opinion or evaluation. Ratings from customers after purchase or transaction or cumulative which means the overall evaluation of the purchase amount and the experience of using the product or service [11].

### **Financial Performance**

According to Fusva et al. [12] Financial performance is a unit of measurement used to assess the health of a bank. The health of a bank includes several risk assessments, used as a key internal performance measure for each bank entity[13].

### **The Relationship Between Variables**

#### **Customer Experience has a Positive Effect on Financial Performance**

According to Mbama and Ezepue [15], improving experience handling customer in using services, in the form of good product quality, fast-risk, and ease-of-use of digital banking. These factors are able to form a customer service perspective that has a positive impact on company profits. According to research of Bennett and Molisani [16] and Berrais and Hamouda [17] that has a significant and positive impact of customer experience on financial performance. That Factors can be able to form perspective of customer services impact on profit.

H<sub>1</sub>: Customer Experience has a positive effect on Financial Performance

## **Customer Satisfaction has a Positive effect on Financial Performance**

According to Chandra [7] customer satisfaction as a feeling or evaluation of the customer towards the product or service. Where customer satisfaction is the customer fulfillment of expectations or needs for products or services. Such satisfaction is more than being willing to pay a premium, recommend the service and continue to use it. This can have an impact on the company's profits and reduce bank costs associated with providing services [18]. According to research of Obeng and Mkhize [9] and Fusva et al. [12] customer satisfaction has a significant impact on financial performance. Satisfaction is an opinion or evaluation from customer after product use or transaction or experience of product or service use [17].

H<sub>2</sub>: Customer Satisfaction has a positive effect on Financial Performance.

### **3. RESEARCH METHODS**

In this study, the method of this research used descriptive cross-sectional method. The sampling method in this research is the method non-probability sampling which is convenience sampling so that data collection will be easier. The sample of this study amounted to 261 respondents who use digital banking services in Jakarta, Bogor, Depok, Tangerang and Bekasi. The measurement of the research object was measured using a Likert scale. Financial performance of banks measured using proxy of financial performance as NPS (CLV) [19]. The data analysis method in this study uses structure equation modeling (SEM) with the help of the Smart PLS 3.3.3 program. The level of significance used in this study was 5% [20]. Value of t-statistics used in this study higher than 1.96 and value of p-value lower than 0.05. In the analysis of the outer model, all the variables in the study have met the value of the outer model, namely the loading factor > 0.7 and the average variance extracted (AVE) value > 0.50. The reliability test that measures composite reliability and Cronbach's alpha in this study obtained a value of > 0.5.

The measurement of the variables used refers to the previous research as shown in Table 1 as follow.

**Table 1.** The Measurement of Variables

<b>No</b>	<b>Variable</b>	<b>Indicator</b>	<b>Source</b>
1	Customer Experience (CE)	12	Mbama and Ezepue 2018
2	Customer Satisfaction (CS)	5	Mbama and Ezepue 2018
3	Financial Performance (FP)	3	(Mbama and Ezepue 2018), (Reichheld, 2003)

### **4. RESULTS AND DISCUSSIONS**

Among the 261 respondents, the majority of respondents are women (60.54%). Furthermore, the majority of respondents are 18-25 years old (60.54%), last education was bachelor degree (72.03%), lived in Jakarta (50.58%), and 60.53% of the respondents have been using mobile banking service for 2-5 years (51.34%) for personal use (55.56%).

**Table 2.** The Characteristics of Participants

Characteristics	Participants for Construct Validity n = 261		Characteristics	Participants for Construct Validity n = 261	
	Σ	%		Σ	%
<b>Age</b>			<b>Digital Banking Services</b>		
< 18 years	2	0.76%	Mobile Banking	158	60.53%
18 - 25 years	158	60.54%	Internet Banking	10	3.83%
26 - 35 years	78	29.88%	Both	93	35.64%
36 - 45 years	10	3.83%	<b>Duration of Use</b>		
> 45 years	13	4.99%	< 1 year	9	3.45%
<b>Gender</b>			1 - 2 years	24	9.19%
Female	158	60.54%	2 - 5 years	134	51.34%
Male	103	39.46%	> 5 years	94	36.02%
<b>Education</b>			<b>Address (City)</b>		
< High School	40	15.33%	Bekasi	7	2.68%
D3	5	1.92%	Bogor	2	0.77%
Bachelor	188	72.03%	Depok	1	0.38%
Master	22	8.43%	Jakarta	132	50.58%
Doctoral	6	2.29%	Tangerang	119	45.59%
<b>Purpose of Use</b>					
Personal Use	145	55.56%			
Business	3	1.14%			
Both	113	43.40%			

The result of validity test shows the data is valid, whereas all values have Loading Factor > 0.7 and Average Variance Extracted > 0.5. The result of reliability test shows that the data has a coefficient Cronbach Alpha and Composite Reliability value are > 0.5 it means reliable.

**Table 3.** The Result of Hypothesis Test

	Coefficient	t-Statistics	p-Values
CE → FP	0.196	2.801	0.005
CS → FP	0.465	6.776	0.000

Notes: CE: Customer Experience, CS: Customer Satisfaction, FP: Financial Performance

Source: The Result of Data Analysis using Smart PLS

Customer Experience (CE) is associated with positive comments about the product, so that positive customer reactions such as recommending the product to others are considered to improve company performance. The results of this study are in line with the research conducted by Mbama and Ezepue [1], Bennett and Molisani [16], and Berraies and Hamouda [17].

The result of hypothesis test to know whether variable has a significant or not impact is look at t-statistics value > 1.96 and p-value < 0.05. Based on Table 3 showing that customer experience has a coefficient of 0.196, this means that customer experience has a significant impact on financial performance. Customer satisfaction has a coefficient of 0.465. This means that customer satisfaction has a significant impact on financial performance. So, the results have proven that H1 and H2 were not rejected.

**Table 4 R-Square Analysis ( $R^2$ )**

	<b>R-Square</b>
<i>Financial Performance</i>	0.396

Source: The Result of Data Analysis using Smart PLS

The result of the coefficient of determination  $R^2$  from this study shows the percentage value of the variable is financial performance 0.396, meaning that the influence of customer experience and customer satisfaction on financial performance is 39.6%. Based on the test results, the value of R-square in this study is classified as weak [21].

**Table 5 Cross Validated Redundancy ( $Q^2$ )**

	<b>Q-Square</b>
<i>Financial Performance</i>	0.339

Source: The Result of Data Analysis using Smart PLS

Then the test results of predictive relevance ( $Q^2$ ) = 0.339 means that the variable constructs contained in this study are relevant to measure the research model that has been well established [21].

The results of testing the hypothesis  $H_1$  proves that the customer experience is able to affect positively to financial performance. A positive experience about the product is able to give a distinct impression for customers so that it can encourage customers to repeat purchases.

The results gained from testing the hypothesis  $H_2$  has proven that customer satisfaction able to influence positively on financial performance. Customer satisfaction is formed because of the fulfillment of the expectations or expectations of these customers. If this is fulfilled, it can be concluded that if the customer is satisfied with the performance of digital banking, the customer will use the service continuously and will indirectly help promote digital banking to other customers. This is able to increase users of digital banking which has an impact on the bank's profit. The results of this study are in line with research conducted by Bennett and Molisani [16], and Berraies and Hamouda [17].

## **5. CONCLUSIONS AND SUGGESTIONS**

The conclusion that can be drawn based on the results of this study is that customer experience and customer satisfaction have a positive effect on financial performance. The results of this study also provide suggestions so that companies can provide good experience and satisfaction for customers as long as customers use banking services digital banking. By increasing these two things, consumers will feel satisfied and happy so as to create loyal customers.

In the future, it is considered essential to extend this research to bank in Indonesia, for example West Java. So order to have a clearer view of the notions of the respondents who have financial products in more than Jakarta, Bogor, Depok, Tangerang and Bekasi. Another,

recommendation would be to using sample for age at range above 25 years old, so next research can find another perspective from another age gap. This would provide more accurate outcomes of the next research. Next research can combine other variables that can show another affect towards financial performance bank. In the future, for next research can added new criteria for example revenue's respondents and average of transaction on user digital banking in a day.

In relation to the results of the research, several managerial implications that can be applied by banks can be conveyed. Seeing from the positive impact of customer experience and customer satisfaction, banks are encouraged to continue to improve services such as service quality, quick response to risks and provide ease of use in creating customer experience and satisfaction.

## REFERENCES

- [1] C. I. Mbama and P. O. Ezepeue, "Digital banking, customer experience and bank financial performance: UK customers' perceptions," *Int. J. Bank Mark.*, vol. 36, no. 2, pp. 230–255, 2018, doi: 10.1108/IJBM-11-2016-0181.
- [2] S. S. Andaleeb, M. R. Quazi, and A. Rahman, "A model of customer-centric banking practices for corporate clients in Bangladesh", *International Journal of Bank Marketing*, Vol. 34 Iss 4 pp. -, " *Int. J. Res. Dev.*, vol. 7, no. 1, pp. 63–83, 2016.
- [3] S. Levy and H. Hino, "Emotional brand attachment: a factor in customer-bank relationships," *Int. J. Bank Mark.*, vol. 34, no. 2, pp. 136–150, 2016, doi: 10.1108/IJBM-06-2015-0092.
- [4] Desy Setyowati, "Transaksi Digital Bank Melonjak, Aka Bersaing Ketat dengan Fintech. Reimagining The Future of Indonesia," 2021. <https://katadata.co.id/desysetyowati/digital/6024eb09db45f/transaksi-digital-bank-melonjak-akan-bersaing-ketat-dengan-fintech> database (Accessed in Nov. 23, 2021).
- [5] A. Fernando, "Semua Bakal Digital, Begini Masa Depan Perbankan RI. Market," 2021. <https://www.cnnindonesia.com/ekonomi/20200914191949-78-546411/bi-ungkap-913-juta-masyarakat-belum-terjamah-layanan-bank> database. (Accessed in Nov. 23, 2021).
- [6] C. Indonesia, "BI Reveals 91.3 Million People Untouched by Bank Services," 2020. <https://www.cnnindonesia.com/ekonomi/20200914191949-78-546411/bi-unjuk-913-juta-database> (Accessed in Nov. 23, 2021).
- [7] S. Chandra, "The Impact of Customer Experience toward Customer Satisfaction and Loyalty of Ciputra World Surabaya," *iBuss Manag.*, vol. 2, no. 2, pp. 1–11, 2014.
- [8] R. Garg, Z. Rahman, and M. N. Qureshi, "Measuring customer experience in banks: scale development and validation," *J. Model. Manag.*, vol. 9, no. 1, pp. 87–117, 2014, doi: 10.1108/JM2-07-2012-0023.
- [9] A. Y. Obeng and M. L. Peter, "Interrelationships and consequential effects among technological innovation, service consistency, customer satisfaction and loyalty in banking," *Int. J. Financ. Bank. Stud.*, vol. 6, no. 3, p. 51, 2017, doi: 10.20525/ijfbs.v6i3.

716.

- [10] A. Z. Arifin, "Influence factors toward financial satisfaction with financial behavior as intervening variable on Jakarta area workforce," *Eur. Res. Stud. J.*, vol. 21, no. 1, pp. 90–103, 2018.
- [11] A. Kusuma and D. S. S. Wuisan, "Effect of brand credibility to word of mouth via customer satisfaction and customer loyalty at Hypermart Cyberpark Karawaci," *J. Ilmu Manaj.*, vol. 1, pp. 49–61, 2021, [Online]. Available: <https://journal.uny.ac.id/index.php/jim/article/view/37885>.
- [12] A. Fusva *et al.*, "Loyalty formation and its impact on financial performance of Islamic banks – evidence from Indonesia," *J. Islam. Mark.*, vol. 12, no. 9, pp. 1872–1886, 2020, doi: 10.1108/JIMA-12-2019-0258.
- [13] E. Keisidou, L. Sarigiannidis, D. I. Maditinou, and E. I. Thalassinou, "Customer satisfaction, loyalty and financial performance: A holistic approach of the Greek banking sector," *Int. J. Bank Mark.*, vol. 31, no. 4, pp. 259–288, 2013, doi: 10.1108/IJBM-11-2012-0114.
- [14] F. F. Reichheld, *Grow*. Harvard Business Review, 2003.
- [15] C. Mbama, "Digital Banking Services , Customer Experience and Financial Performance in UK Banks," no. February, pp. 1–324, 2018, [Online]. Available: [http://shura.shu.ac.uk/23305/1/Mbama\\_2018\\_PhD\\_DigitalBankingServices.pdf](http://shura.shu.ac.uk/23305/1/Mbama_2018_PhD_DigitalBankingServices.pdf).
- [16] M. Bennett and A. Molisani, "Defining customer experience and measuring its impact on financial performance of US publicly traded companies," no. April, 2020, doi: 10.31235/osf.io/mzepq.
- [17] Sarra Berraies, Manel Hamouda (2018) International Journal of Bank Marketing Customer empowerment and firms' performance: The mediating effects of innovation and customer satisfaction, vol. 34, no. 1, pp. 1–5, <https://doi.org/10.1108/IJBM-10-2016-0150>
- [18] K. A. Sun and D. Y. Kim, "Does customer satisfaction increase firm performance? An application of American Customer Satisfaction Index (ACSI)." *International Journal of Hospitality Management*, 35, 68–77. <https://doi.org/10.1016/j.ijhm.2013.05.008>, pp. 68–77, 2013, doi: 10.1016/j.ijhm.2013.05.008.
- [19] Garg, R., Rahman, Z., & Qureshi, M.N. (2014). Measuring customer experience in banks: scale development and validation. *Journal of Modelling in Management*, 9(1), 87–117. <https://doi.org/10.1108/JM2-07-2012-0023>
- [20] Latan, Hengky., dan Ghozali, Imam., *Partial Least Squares: Concepts, Techniques and Applications Using the SmartPLS 3.0 Program, 2nd Edition*. Semarang: Badan Penerbit Universitas Diponegoro, 2015.
- [21] J. F. Hair, M. Sarstedt, L. Hopkins, and V. G. Kuppelwieser, "Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research," *Eur. Bus. Rev.*, vol. 26, no. 2, pp. 106–121, 2014, doi: 10.1108/EBR-10-2013-0128.