# Digitalization of Banking for National Economic Recovery through Collaboration with the Fintech Industry

Mercurius Broto Legowo<sup>1</sup>\*, Fangky Antoneous Sorongan<sup>2</sup>, Steph Subanidja<sup>3</sup>

<sup>1,</sup> Faculty of Information Technology, Perbanas Institute, Jakarta, Indonesia
<sup>2,</sup> Faculty of Economy and Business, Perbanas Institute, Jakarta, Indonesia
<sup>3</sup> Post Graduated School, Perbanas Institute, Jakarta, Indonesia.
\*Corresponding Author: Mercurus Broto Legowo<sup>1</sup>

**ABSTRACT:** The Covid-19 pandemic has wreaked havoc on a variety of industries, including Indonesia's banking sector. These encourage efforts to recover the national economy. This problem occurs due to the slow process of accelerating digital transformation in banking and the lack of the banking industry in developing collaboration with the FinTech industry. The main objective of this research is to examine banking digitalization for economic recovery through collaboration with the FinTech industry during the Covid-19 pandemic. Approach with a quantitative method used for this empirical research and data collection using the purposive Random Sampling Technique. The survey results obtained 100 samples as valid data and were processed using smartPLS software. The main result of this empirical study states that the FinTech industry has a significant influence in mediating and has strong potential in moderating banking digitalization as a driver in the national economic recovery through collaboration with the FinTech industry. This research makes a real contribution to the banking sector in accelerating the digital transformation of banking to support engagement with the FinTech industry in driving national economic recovery.

**KEYWORDS**–Banking industry, Collaboration, Digitalization, FinTech industry

### I. INTRODUCTION

Covid-19 is a pandemic that has spread over the worldwith rapid spread and impacting many parts of people's lives. All industries have suffered economic and socioeconomic losses. Since the pandemic, the economy of a country has been disrupted. The government in Indonesia is making efforts to drive the National Economic Recovery/NER(abbreviated as PEN in Indonesian). The Covid-19 pandemic that occurred in Indonesia, on the other side, accelerated the process of banking digitalization and development through collaboration with the Fintech Industry. The slow process of banking digitalization and then the lack of developing collaboration with the FinTech industry are problems and the consideration driving Indonesian national economic recovery since the COVID-19 pandemic.

The Government of Indonesia's efforts to implement the National Economic Recovery program following PP No. 23 of 2020 focus its policies on business actors in the community, including MSMEs. Sources from the Ministry of Finance said that the National Economic Recovery Program has comprehensive fiscal and monetary policies. It had expected that the national economic recovery run well. According to information quoted from the Antaranews.com website, it had stated that the realization of the PEN program budget was 305.5 trillion Rupiah (41 percents) until the end of July 2021(Antaranews, 2021). Thus, the effort to strengthen the PEN program budget in 2021 from worth 699.43 trillion Rupiah to 744.75 trillion Rupiah had expected to lead to a gradual recovery of the national economy.

The development of FinTech in Indonesia looks very fast. Bank Indonesia makes regulations for the Financial Technology implementation, following Bank Indonesia Regulation Number 19/12/PBI/2017 concerning the Implementation of Financial Technology (in Article 2) to encourage innovation in the financial sector. The Indonesian Financial Services Authority stated that payment products as FinTech products in Indonesia in 2017 alone had 42.22 percents of the total FinTech products. However, it turns out, some opinions from practitioners and researchers today state that FinTech is a nuisance to financial services (Prawirasasra, 2018). Bank Indonesia and the Financial Services Authority have anticipated the negative impact of the emergence of FinTech in the financial and banking industry, both in the form of policies and regulations. Bank Indonesia, as the Central Bank of Indonesia, has developed a blueprint for the Indonesia Payment System (IPS) in the current Digital Era(Bank Indonesia, 2019). The Financial Services Authority has also set a target in its master plan, how FinTech cooperates with the financial and banking industry(OJK, 2021). Thus, the disruption or collaboration of the Financial Industry has become a source of concern and focus for Indonesia's financial and banking service sector.

According to OJK Regulation Number 12/POJK.03/2018, it had stated that Digital Banking Services are banking services that are provided electronically by optimizing the use of client data to serve customers more promptly and independently while maintaining security. According to the report, the volume of digital banking transactions reached 513.7 millionRupiah in December 2020, up 41.53 percents year on year, with a digital transaction value of 2,775.5 trillion Rupiah, up 13.91 percents year on year(Mawarni & Iqbal Fasa, 2021). Banking transactions and digital bank services have recently started to appear in Indonesia, which is in line with changes in people's behavior towards the trend of digitalization. The Financial Services Authority (OJK, abbreviated in Indonesia) has aided the development of banking digitalization), with many regulations that must be made and adhered too. In Indonesia, several digital banks have an operation, so the number of transactions using this method is growing. The government is supporting the FinTech industry to enhance financial inclusion and digital transformation, according to a news release from the Coordinating Ministry for the Economy of the Republic of Indonesia(Kemenko\_Ekon, 2020).Financial inclusion is so important to accelerate the National Economic Recovery (PEN, abbreviated in Indonesian) initiative through FinTech-based financing digital technology. According to the conclusions of IDC's Digitalization in Banking Study done in 2016 regarding the Global Respondent Bank's Perception of the existence of FinTech(OJK, 2021), as many as 23.4 percent still consider Fintech a "Possible Threat" and a competitor to the Bank.Meanwhile, 34.2 percent of those banks viewed Fintech as a field in which they could collaborate or cooperate.Based on information from the Kontan.co.id website, several Indonesian banks have collaborated with Fintech companies(Kontan.co.id, 2021).

Previous research on the digitalization of banking in Indonesia had carried out by several researchers. The results of the study from Puspitadewi (2019) stated that her studies revealed an impact of banking digitalization on the effectiveness and productivity of work at PT. Bank of National Iindonesia (Persero) Tbk. Jember Branch. Research by Rodin et al. (2019) reveals the main directions for developing the FinTech industry and digitalization in banking services. Yudhira (2021) stated that the Covid-19 pandemic revealed the development of Sharia FinTech for digital financial innovation. Another study from Abidin (2021) concluded that the PEN program encourages labor productivity in the agricultural sector in the COVID-19 pandemic.

The study aims to look into banking digitalization to support economic recovery during the COVID-19 epidemic by developing collaboration with the FinTech industry. The objectives of this research are to experimentally examine if the FinTech business can mediate or moderate the effect of banking digitalization on national economic recovery through collaboration, particularly in the Covid-19 pandemic.

The findings of a study on banking digitalization to drive national economic recovery through collaboration with the FinTech industry are a valuable contribution to the Indonesian government and a novelty in this research.

# II. LITERATURE REVIEW

# 2.1 National Economic Recovery

According to Abidin(2021), the National Economic Recovery Program (based on PP Number 23 of 2020) strives to safeguard, maintain, and strengthen businesspeople's ability to manage their firms throughout the Covid-19 pandemic. The emergence of the National Economic Recovery is indicated by an increase in the productivity of goods and services output, per capita output income, and gross domestic product (GDP).

### 2.2 FinTech industry

The banking and finance industry has been affected by digitalization in the last decade, and reflected by the emergence of financial technology, referred to as "FinTech."In the study of Subanidja et al.(2020), the FinTech industry indicated the mechanism shown by creating/changing/improving business models. FinTech also has indications for disruption or collaboration. Another obvious indication of Fintech is the application of IT to Finance.Yudhira(2021)emphasized that Fintech can be used as a solution for strengthening and recovering the economy during the current covid-19 pandemic.

### 2.3 Banking Digitalization

Digitalization represents a shift in perspective that inevitably affects the most traditional organizations and even affects the general public(Gimpel & Röglinger, 2015).Meanwhile, banking digitalization is a series of activities in the banking sector supported by electronic facilities owned by the Bank through digital media from prospective customers Bank customers and carried out independently(Puspitadewi, 2019).According to Marginingsih(2019)stated that in Indonesia, digital-based financial services have developed at this time and can be divided into several groups, namely: (1) System of Payment Channels, which is the digital service that functions to replace currency and cash demand deposit as a means of payment, utilizing payment using cards and e-money, (2). Digital Banking is a banking service to meet customers' needs who use digital technology, and (3). Online/Digital Insurance is an insurance service digital technology for customers. According to a study by Mawarni & Iqbal Fasa(2021), the economic slowdown caused by Covid-19 lowered payment transaction operations in the financial and banking sectors but accelerated banking digitalization. The occurrence of the

Covid-19 pandemic in the banking industry is a catalyst for accelerating the maturity of banking digitalization implementation. For the purposes of banking digitalization, governance and risk management in banking digitalization are important factors to consider when improving and maintaining bank performance. On the other hand, digital transformation in banking or open banking can be the solution for banks during the COVID-19 pandemic like now.Digital transformation must be followed by transformation of business processes and continuous improvement of risk management processes to remain relevant to today's external context. Collaboration between banking and fintech continues to increase(Kontan.co.id, 2021).Both have their own strengths and weaknesses, so collaboration is needed to compensate for the shortcomings of both parties. Several models for bank and FinTech collaboration can be done, namely:(1) Channeling model is a collaboration model for banks to channel credit through fintech, which is the most common nowadays, (2) Supplier Model, which is what BRI did in developing the Ceria application where banks invest in developing FinTech-like services. (3) Satellite Model is a collaboration model where banks form venture capital companies that can freely invest in FinTech companies, (4) the Merger model can be called an acquisition model where FinTech companies acquire shares in the banking sector. In a study conducted by Nurzianti (2021)), the Indonesian Financial Technology Association (AFI) stated that 63.9 percents of FinTech industry players have collaborated with the banking sector and connected through the Application Programming Interface (API).

### 2.4 Research Model and Hypothesis Development

The research model is founded on concepts derived from reference sources and transformed into the primary variables in a study. The research model can be shown in Figure 1.



#### Figure 1 Research Model and Hypothesis Development

Banking digitalization is an independent variable having indicators of governance and risk management, the use of IT in banking, and the acceleration of digital transformation. Fintech industry is a mediating or moderating variable having indicators of business model creation/change/improvement, synergy and collaboration, and IT deployment in finance. National Economic Recovery as the dependent variable, includes indicators for goods and services output, output per capita, and Gross Domestic Product(GDP), one of the most important indices of a country's economic success.

Hypotheses development based on this research model, as seen below:

Suheriadi(2020) mentioned that several bank players have begun to overhaul their business methods and use the Open API for statistical analyses, so Bank Indonesia believes that bank-Fintech industry collaboration is becoming more open.Bank Indonesia revealed that with the interlinking of the FinTech industry with banking digitalization.Thus, collaborative efforts to obtain optimal financial digitization results(CNBC Indonesia, 2021).Then the hypothesis:

H<sub>1</sub>: Banking digitalization affects the Fintech industry

Hanifa & Fisabilillah(2021)study revealed that in the Covid-19 pandemic, the Fintech business provides an opportunity and affects national economic recovery. The FinTech industry development had influenced by the digitalization of banking services (Rodin et al., 2019). Then the hypothesis:

H<sub>2</sub>:The Fintech industry's impact on the national economic recovery

According to Gian Ayu(2021)digitalization can be the key to fostering national economic recovery and achieving a higher degree of economic growth.Based on these facts, the following hypothesis is:

H3:Banking Digitization's impact on National Economic Recovery

According to Bank Indonesia, the Interlink FinTech Industry and digital banking must collaborate to achieve maximum financial digitalization results(CNBC Indonesia, 2021).Banking digitalization is also able to encourage economic recovery(Gian Ayu, 2021).Based on these facts, the following hypothesis is:

 $H_4$ : The FinTech industry mediates between the effects of banking digitalization and the recovery of the national economy.

According to Subanidja et al.(2020)mentioned that "FinTech" is not a disruption but has the potential for collaborating with the banking. As a result, the FinTech industry expects the present digital banking change to accelerate. Then the hypothesis:

 $H_5$ : The FinTech Industry moderates between the effects of banking digitalization and the recovery of the national economy.

### III. RESEARCH METHODOLOGY

### 3.1 Research Data Collection and Samples

This study uses quantitative methods, where data had obtained using online survey techniques through purposive random sampling. Finally, 100 samples had chosen as valid data among 150 employee responses from various Indonesian banks.

### 3.2 Research Data Analysis

The Likert's scale to measure the variables of this study is a quantitative way (scale of 5). SmartPLS 3.2.7 is a data processing software application. The model test and hypothesis test are the two most used empirical tests. For the proposed research model, inner and outer model tests were conducted. For this study, Cronbach's Alpha and Composite Reliability values > 0.7, were used to determine the reliability and validity of the variables and indicators. According to Hussain et al. (2018), Goodness of Fit (GoF) and R-square values had used as evaluations in the Inner Model (R2). The hypothesis had tested with a P-Value of less than 0.05 and a T-Statistic value of more than 1.960.

### IV. RESULTS AND DISCUSSIONS

#### 4.1 Results of this Study

The findings of the model test and the hypothesis test are examples of empirical test results in the quantitative method. In this empirical test, 100 people who fill out questionnaires will be analyzed.

Table 1 displays the results of testing the inner model by examining the Outer Loading value. It had seen that the indicator that has the most influence on the Banking Digitalization variable is the indicator for the Acceleration of Digital Transformation ( $X_2$ ), with a value of 0.963.

#### Table 1. The Research Model's Outer Loading

Dimension / Indicator	Banking	FinTech	National	Moderating
	Digtalization	Industry	Economic	Effect-1
			Recovery	
X <sub>1</sub> (Governance and Risk)	0.932			
X <sub>2</sub> (Digital Transformation Acceleration)	0.963			
X <sub>3</sub> (IT Utilization)	0.831			
Y <sub>1</sub> (Create/change/improve for business model)		0.785		
Y <sub>2</sub> (Synergy/collaboration)		0.953		
Y <sub>3</sub> (IT applied to Finance)		0.937		
Z <sub>1</sub> (Output Product/Services)			0.800	
Z <sub>2</sub> (Income per Capita)			0.862	
Z <sub>3</sub> (Gross Domestic Product)			0.895	
FinTechIndustry as Moderating effect				1.566

With a value of 0.953, the most influential indicator of the FinTech Industry variable is Disruption/Collaboration( $Y_2$ ). Finally, the Gross Domestic Product indicator( $Z_3$ ) is the most influential indicator variable for the National Economic Recovery. An outer loading value of 0.895.

Analysis of the results of the measurement of the validity and reliability of research variables by looking at the value of Cronbach's Alpha and CR and data processing results and executed with Smart-PLS version 3.2 (Hussain et al., 2018). All Cronbach's Alpha and Composite Reliability values for each variable are greater than 0.7, as shown in Table 2.These findings suggest that all of the study's variables are valid and reliable.

#### Table 2. Result of Validity and Reliability Testing

	Cronbach's	rho_A	Composite	Average Variance
	Aplha		Reliability	Extracted (AVE)
Banking Digitalisation (BD)	0.895	0.906	0.935	0.829
FinTech Industry (FI)	0.872	0.891	0.923	0.801
National Economic Recovery (NER)	0.813	0.816	0.889	0.728
Moderating Effect-1	1.000	1.000	1.000	1.000

\*Corresponding Author: Mercurus Broto Legowo<sup>1</sup>

www.aijbm.com

4 | Page

The output of Outer Loading in Path Analysis in the measurement model is depicted in Fig. 2 as a result of data processing with smartPLS software application.

 $\begin{array}{l} Structural \ Equation \ Modeling \ (SEM) \ analysis \ was \ used \ in \ this \ study, \ and \ the \ equations \ are \ as \ follows: \\ FI = \beta_{11}BD + \xi_1 \ (1) \\ FinTech_Industry \end{array}$ 

 $= 0.647*Banking\_Digitalization + \xi l$ 

# $NER = \beta_{12}BD + \beta_{21}FI + \beta_{212}BD*FI + \beta_{212}BD*FI + \xi_2$ (2)

National\_Economic\_Recovery

=0.349\* Banking\_Digitalization +0.500\*FinTech\_Industry + 0.323\*Banking\_Digitalization \*FinTech\_Industry + 0.055\*Banking\_Digitalization \*FinTech\_Industry +  $\xi_2$ 

where: $\beta$  = beta coefficient value , and  $\xi$  = measurement error.



Figure 2. Output of Outer Loading in Path Analysis

Measurement of the structural model or Inner Model can be shown in Table 3.

Table 5. Results of the finner Model Testing					
Variable	R-Square	Communality	GoF	Q-Square	
Banking_Digitalization (BD)		0.828			
FinTech_Industry(FI)	0.418	0.801	0.474	0.491	
National_Economic_Recovery (NER)	0.259	0.728			

#### **Goodness of Fit (GoF)**

The total appropriateness index had calculated using Goodness of Fit (GoF) criteria, Q-square values, and R-square values while assessing the Inner Model(Hussain et al., 2018). The following formula is used to determine the Goodness of Fit (GoF) values:

 $GoF = \sqrt{AverageCommunalityxaverageR^2}(3)$ 

 $=\sqrt{0.786 \times 0.339}$ 

 $=\sqrt{0.266061}$ 

The GoF value of 0.516 (> 0.36) received a high evaluation of the model measurement (Akter et al., 2011).

### Q - Square value

The Q-square value was used to demonstrate that the research model is predictive. The formula for calculating the Q-square value is as follows:

$$Q^{2} = 1 - [(1 - R1^{2})x(1 - R2^{2})](4)$$
  
= 1 - [(1-0.825)x(1-0.933)]

\*Corresponding Author: Mercurus Broto Legowo<sup>1</sup>

www.aijbm.com

5 | Page

### = 1 - 0.770

### = 0.230

The value obtained from the Q-square 0.230 (> 0.15) indicates that the intermediate prediction level(Akter et al., 2011).

### **R** - Square value

The R-Square value is used to assess the structural model's predictive power. It's an indication of many construct variables the research model can explain. The R-Square value is determined from the results of data processing with smartPLS software and not from the calculation of a formulation. These R-Square value results are shown in Table 4. The R-square value is calculated using the measurement findings of the endogenous R-square value. If the value of R-square = 0.02 has a low effect., or with size effect, 0.13 has a medium effect size and > 0.36 a high effect size, according to Cohen's study (Akter et al., 2011).

### Table 4. Results of R-Square Testing

	R-Square	R-Square Adjusted
FinTech Industry (FI)	0.418	0.412
Nationnal Economic Recovery (NER)	0.259	0.236

The R-square value for the FinTech Industry variable is 0.418 and 0.259 for Nationnal Economic Recoveryvariable. Because the R-square value is greater than 0.30, it indicates that both of them have a very high effect category. Another item from the R-Square Value is that the FinTech Industry is 41.8 percents influenced by banking digitalization issues. The FinTech Industry is influenced by other elements that are not mentioned in this study, which account for 58.2 percents. Similarly, the FinTech Industry and Banking Digitalization, as well as the mediating effect, influenced 25.9 percents of national economic recovery, whereas additional elements not considered in this study influenced 74.1 percents.

### **Results of Hypothesis Testing.**

All results of hypothesis testing( Direct Effect and Indirect Effect) are presented in Table 5.

#### Table 5. Results of Hypothesis Testing for Direct and Indirect Effects

	8				
Hypothesis	Original_	Sample_	STDEV	<b>T-Statistic</b>	P-Value
	Sample	Mean			
<b>H1:</b> BD $\rightarrow$ FI(direct effect)	0.647	0.655	0.063	10.200	0.000
<b>H2:</b> $FI \rightarrow NER$ (direct effect)	0.500	0.500	0.106	4.725	0.000
<b>H3:</b> BD $\rightarrow$ NER(direct effect)	0.349	0.365	0.100	3.478	0.001
<b>H4:</b> BD $\rightarrow$ FI $\rightarrow$ NER(mediatingeffect)	0.323	0.324	0.082	3.958	0.000
<b>H5</b> :ME-1 $\rightarrow$ NER(moderating effect)	0.055	0.064	0.060	0.975	0.361

Fig. 3 shows the Path Analysis Outer Loading Output with Bootstrapping Algorithm. This is the outcome of data processing with SmartPLS 3.2.7 and the Bootstrapping Algorithm.



Figure 3. Path Analysis Outer Loading Output

### 4.2. Discussion of The Results of study

This study provides empirical evidence of banking digitalization to support national economic recovery by fostering collaboration with the FinTech industry. The empirical model developed has valid and reliable variable values (Cronbach Alpha (CA) and Composite Reliability (CR) values >0.7). Furthermore, all variable indicators are valid and reliable (outer loading value > 0.5). The FinTech Industry variable (IF) has a coefficient of determination ( $R^2$ ) of 0.418 or 41.8% greater than the coefficient of determination ( $R^2$ ) of the National Economic Recovery (PEN) variable. This means that the FinTech Industry has no significant effect on moderating (the value of the T-Statistic <1.96 and the magnitude of the P-Value> 0.05). However, it will have great potential to moderate banking digitalization to promote the recovery of the national economy through the development of significant collaboration.

Banking digitalization has a positive and significant impact on the FinTech Industry. The value of the Beta coefficient = 0.647, the value of the T-Statistic = 10.200 (> 1.96), and the P-Value = 0.000 (< 0.05). The most important indicator for banking digitization is the Acceleration of Digital Transformation ( $X_2$ =0.963), and for the FinTech Industry variable, the dominant indicator is Synergy/Collaboration ( $Y_2$ =0.953), which means that accelerating digital transformation is required to accelerate banking digitalization through disruptive innovation or collaboration in the form of collaborative development. This result is in line with the fact that many banking players anticipate the acceleration of banking digitalization by improving their business models. Bank Indonesia believes that bank collaboration with Fintech is becoming more open. Furthermore, Bank Indonesia has stated that Interlink Fintech and banks must collaborate to achieve the best financial digitalization results (CNBC Indonesia, 2021).

The Financial Technology industry has had a positive and significant effect on the National Economic Recovery. The value of the beta coefficient = 0.500, and the value of the T-Statistic = 4.725 > 1.96, and P-Value = 0.000<0.05. The most important indicator in the FinTech Industry variable is synergy/collaboration (Y<sub>2</sub>=0.953), namely developing Fintech Industry collaboration with Banking Services Institutions. While the NER variable has the most dominant Gross Domestic Product indicator with an outer loading indicator value of 0.895. While the NER variable has the most dominant Gross Domestic Product indicator with an outer loading indicator value of 0.895. This result is in line with a study from Hanifa & Fisabilillah(2021), which states that the Fintech Industry provides the expected opportunities during the current COVID-19 pandemic by contributing to and influencing Indonesia's economic recovery. The emergence of Banking Digitalization was triggered by the rapid growth of the FinTech Industry(Rodin et al., 2019).

Banking digitalization has a significant and positive impact on the National Economic Recovery. Beta coefficient=0,349, value of T-Statistic = 3,478>1,96, value of P-Value=0,001 <0,05. The result of this hypothesis is in line with what Gian Ayu(2021)stated banking digitalization is one of the keys to encouraging economic recovery. Thus, this is inseparable from the impact of banking digitalization and changes in customer behavior who conduct financial transactions using digital services.

The FinTech industry has a substantial impact on the national economic recovery by mediating the impact of banking digitalization. The value of the beta coefficient =  $(0.647 \times 0.500) = 0.323$  (> 0.026), the value for T-statistics = 3.958 > 1.96, and P-Value = 0.000 < 0.05. This finding is in line with Bank Indonesia's statement that the Importance of Interlinking Fintech and Banking Fintech and banking must collaborate to achieve the best results for financial modernization(CNBC Indonesia, 2021). This result had confirmed by the statement of Gian Ayu(2021)who stated that banking digitalization is one of the most important factors in promoting economic recovery.

The FinTech Industry has no effect in moderating the Banking Industry towards the National Economic Recovery. Beta coefficient = 0.055, T-statistic value = 0.975 (<1.96), and P-Value value = 0.361 (>0.05). However, the FinTech Industry state has the potential to significantly moderate Banking Digitization towards the national economic recovery by looking at the Beta Coefficient Value = 0.055 (> 0.026), and the R<sup>2</sup> value of the FinTech Industry variable is greater than the NER variable R<sup>2</sup> (0.481 > 0.259). This is in line with Subanidja et al.(2020) found that while "FinTech" is not a disruption, the banking sector can partner with the FinTech industry.

The results of this study state that the digitalization of banking by accelerating digital transformation through the development of collaboration/collaboration with the FinTech industry will drive national economic recovery in the Covid-19 pandemic.

### 4.3. Research Implication and Limitations

This research has theoretical and managerial implications for banking and the FinTech industry on how to create collaboration through collaborative programs in their business. This finding has significant implications for the banking and FinTech Industry, both theoretical and managerial aspects, specifically for those working in the Indonesian banking sector and FinTech industry players, that collaboration between the banking sector and the FinTech industry is a must.

This paper has certain limitations: First, the findings limit the study of the banking and financial technology industry selected in the Indonesian context.Second, due to the small sample size, the empirical findings may be limited by the approach.Finally, the questionnaire approach is not completely free of the respondent's subjectivity.

### V. CONCLUSION

This scientific paper seeks to reveal that the Covid-19 pandemic in Indonesia has prompted the Government to undertake efforts to restore the national economy, one of which is accelerating digitalization in banking through collaboration with the FinTech industry.

Banking digitalization by accelerating digital transformation has a significant effect on collaborating with the FinTech industry to drive national economic recovery in the current covid-19 pandemic. This is proof that there is still not much acceleration of digital transformation in the application of banking digitization in Indonesia. The FinTech industry has a significant role in mediating the influence of banking digitalization to promote national economic recovery. The FinTech industry, on the other hand, may be able to mitigate the impact of banking digitalization to fully support national economic recovery, especially in the covid-19 pandemic. The growing number of banking sectors partnering with the FinTech industry in financial digitization demonstrates this. Finally, the main result of this research is that during the current covid-19 pandemic, banking digitalization is driving the National Economic Recovery through collaboration with the FinTech industry.

For further research, related studies to show the problems of the FinTech Industry in collaboration with other financial industries during the covid-19 pandemic or related to financial inclusion in banking financing in the real sector, such as Small Medium Enterprises (SMEs).

### ACKNOWLEDGEMENTS

The author expresses his deepest gratitude to the Ministry of Education and Culture, Research and Technology of the Republic of Indonesia for funding this research in 2022.

#### REFERENCES

- [1] Abidin, M. Z. (2021). Indonesian Treasury Review. *Jurnal Perbendaharaan, Keuangan Negara Dan Kebijakan Publik*, 3(4), 330–346.
- [2] Akter, S., D'Ambra, J., & Ray, P. (2011). An evaluation of PLS based complex models : the roles of power analysis , predictive relevance and GoF index. In *Proceedings of the 17th Americas Conference on Information Systems (AMCIS2011)* (pp. 1–7).
- [3] Antaranews. (2021). Realization of the National Economic Recovery Program. Retrieved from https://www.antaranews.com/infografik/2324302/realisasi-program-pen-dan-pemulihan-ekonominasional
- [4] Bank Indonesia. (2019). Indonesia Payment Systems Blueprint 2025 Bank Indonesia : Navigating the

\**Corresponding Author: Mercurus Broto Legowo*<sup>1</sup>

www.aijbm.com

8 | Page

*National Payment Systems in the Digital Era.* Retrieved from https://www.bi.go.id/.../Indonesia-Payment-Systems-Blueprint-2025- Presentation.pdf

- [5] CNBC Indonesia. (2021). Financial Digitization, This is BI's Special Message to Indonesian Banks and FinTechs. Retrieved from https://www.cnbcindonesia.com/tech/20210331142714-37-234352/digitalisasi-keuangan-ini-pesan- khusus-bi-ke-bank-fintech
- [6] Gian Ayu, M. (2021). Bank Indonesia: Digitalization Becomes the Key to Supporting Economic Recovery. In *Cloud Computing Indonesia Conference 2021*. Retrieved from https://www.cloudcomputing.id/acara/bank-indonesia-digitalisasi-kunci-pemulihan-ekonomi
- [7] Gimpel, H., & Röglinger, M. (2015). *Digital Transformation: Changes and Chances. Frauenhofer Institute for Applied Information Technology Fit.*
- [8] Hanifa, N., & Fisabilillah, Adi W. P. (2021). The Role and Policies of the Indonesian Government During the Covid-19 Pandemic. *Welfare Jurnal Ilu Ekonomi*, 2(1), 9–19.
- [9] Hussain, S., Fangwei, Z., Siddiqi, A. F., Ali, Z., & Shabbir, M. S. (2018). Structural Equation Model for Evaluating Factors Affecting Quality of Social Infrastructure Projects. *Sustainability*, *10*, 1–25.
- [10] Kemenko\_Ekon. (2020). Government Encourages Fintech to Increase Financial Inclusion and Digital Transformation. In *Coordinating Ministry for the Economy-Press conference*. ekon.go.id. Retrieved from https://www.ekon.go.id/publikasi/detail/634/pemerintah-dorong-fintech-untuk-tingkatkan-inklusi-keuangan-dan-transformasi-digital
- [11] Kontan.co.id. (2021). Collaboration between Banks and Fintech is increasing. In *Keuangan-Kontan.co.id*. Kontan.co.id. Retrieved from https://keuangan.kontan.co.id/news/kolaborasi-antara-bank-dan-fintech-semakin-meningkat
- [12] Marginingsih, R. (2019). Financial Technology (FinTech) SWOT Analysis of the Banking Industry. *Cakrawala: Jurnal Humaniora Bina Sarana Informatika*, *19*(1), 55–60.
- [13] Mawarni, R., & Iqbal Fasa, M. (2021).Optimizing the Digital Banking Performance of Islamic Banks during the Covid-19 Pandemic. *Jurnal Manajemen Bisnis (JMB)*, *34*(1), 1–13.
- [14] Nurzianti, R. (2021). Islamic Financial Institution Revolution in Fintech Technology and Collaboration. *Jurnal Inovasi Penelitian*, 2(1), 37.
- [15] OJK. (2021). Guide to BPR Cooperation with FinTech Lending. Otoritas Jasa Keuangan Indonesia.
- [16] Prawirasasra, K. P. (2018). Financial Technology in Indonesia: Disruptive or Collaborative? *Reports* on Economics and Finance, 4(2), 83–90.
- [17] Puspitadewi, I. (2019). The Effect of Banking Digitization on the Effectiveness and Productivity of Employees. *Manajemen Dan Bisnis Indonesia*, 5(2), 247–258.
- [18] Rodin, B. K., Ganiev, R. G., & Orazov, S. T. (2019). Fintech in Digitalization of Banking Services. In *1st International Scientific and Practical Conference on Digital Economy (ISCDE 2019)* (Vol. 105, pp. 165–168).
- [19] Subanidja, S., Legowo, M.B, & Sorongan, F. A. (2020). FinTech for Sustainable Performance in Financial and Banking Industry: Disruption or Collaboration. In *International Conference Economics, Business and Entreprebeurship (ICEBE) 2020* (pp. 3–8).
- [20] Suheriadi. (2020). BI: Fintech Implements Digitization Faster Than Banking. In *iNFOBANKS NEWS*. Retrieved from https://infobanknews.com/topnews/bi-digitalisasi-lebih-cepat-diterapkandibanding-perbankan/
- [21] Yudhira, A. (2021). Analysis of the Development of Sharia Financial Technology (FinTech) During the Covid-19 Pandemic in INDONESIA. *Jurnal Ilmiah Akuntansi Keuangan Dan Bisnis*, *1*(2).

\*Corresponding Author: Mercurius Broto Legowo<sup>1</sup> <sup>1</sup>(Faculty of Information Technology, Perbanas Institute, Jakarta, Indonesia)

\*Corresponding Author: Mercurus Broto Legowo<sup>1</sup>