

THE EFFECT OF DIGITAL FINANCIAL, CREDIT RISK, OVERHEAD COST, AND NON-INTEREST INCOME ON BANK STABILITY

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Abstract: This research aims to find out and analyze the influence of digital finance, credit risk, overhead cost, and non-interest income on the stability of banks from the banking industry included in conventional banks listed on the Indonesia Stock Exchange (IDX) in the period 2016 to 2020. Sample selection uses the purposive sampling method. The number of samples used in this study amounted to 40 Conventional Banks registered IDX. The independent variable consists of Digital Finance measured using dummy variables, namely 1 if the bank launches a mobile banking application and 0 if vice versa, Credit Risk measured using Non Performing Loan (NPL), Overhead Cost measured using overhead expense ratio divided by total assets, and Non-Interest Income as measured by non-interest income ratio divided by total operating income. Furthermore, the study's dependent variable is Bank Stability as measured using Z-scores. This study compares two research results based on the COVID-19 Pandemic period, namely research I before COVID-19 with 2016 to 2019 and research II when COVID19 with only 2020. The results showed that Digital Finance had a positive effect on both studies, Credit Risk had a negative effect on both studies, Overhead Cost had no effect, and Non-Interest Income had no effect on the study period I and negatively on the study period II.

Keywords: Digital Finance, Mobile Banking, Credit Risk, NPL, Overhead Cost, Non-Interest Income

Abstrak: Penelitian ini bertujuan untuk mengetahui dan menganalisis pengaruh keuangan digital, risiko kredit, biaya overhead, dan pendapatan non bunga terhadap stabilitas bank dari industri perbankan yang termasuk dalam bank konvensional yang terdaftar di Bursa Efek Indonesia (BEI) pada periode tersebut. Tahun 2016 hingga 2020. Pemilihan sampel menggunakan metode purposive sampling. Jumlah sampel yang digunakan dalam penelitian ini berjumlah 40 Bank Konvensional yang terdaftar di BEI. Variabel independen terdiri dari Digital Finance yang diukur menggunakan variabel dummy yaitu 1 jika bank meluncurkan aplikasi mobile banking dan 0 jika sebaliknya, Credit Risk diukur dengan Non Performing Loan (NPL), Overhead Cost diukur dengan rasio biaya overhead dibagi total aset, dan Pendapatan Non Bunga yang diukur dengan rasio pendapatan non bunga dibagi total pendapatan operasional. Selanjutnya variabel dependen penelitian adalah Stabilitas Perbankan yang diukur dengan menggunakan Z-score. Penelitian ini membandingkan dua hasil penelitian berdasarkan masa Pandemi COVID-19 yaitu penelitian I sebelum COVID-19 dengan tahun 2016 hingga 2019 dan penelitian II saat COVID19 hanya dengan tahun 2020. Risiko berpengaruh negatif pada kedua penelitian, Overhead Cost tidak berpengaruh, dan Non-Interest Income tidak berpengaruh pada penelitian periode I dan negatif pada penelitian periode II.

Kata Kunci: Keuangan Digital, Mobile Banking, Risiko Kredit, NPL, Biaya Overhead, Pendapatan Bukan Bunga

INTRODUCTION

The COVID-19 pandemic is a new challenge for the world economy. The COVID-19 pandemic is considered one of the largest global crises that has had a drastic impact on the global including Indonesia. The Indonesian government has implemented various policies to help reduce the transmission of the COVID-19 virus. This is indicated by Indonesia's domestic economic growth in the first quarter of 2020 of 2.97% *year on year* (yoy). This value is slow compared to the value in the previous quarter of 4.97% (yoy). Therefore, Bank Indonesia predicts that Indonesia's economic growth in 2020 will decline due to the impact of the COVID-19 Pandemic. Of course, this makes the stability of the financial system, especially the stability of banks, shaken in its control (Ali & Puah, 2019).

Bank Indonesia as the central bank has a need to maintain financial system stability in Indonesia, especially in functions related to *Lender of Last Resort* (LoLR). LoLR is the authority of Bank Indonesia in its authority to provide liquidity in times of economic crisis. According to Bank Indonesia, financial system stability is a condition that allows the national financial system to function effectively and efficiently and can minimize internal and external vulnerabilities (Warjiyo, 2006), so that economic growth and stability in Indonesia can be contributed from financing or allocation of funding sources. Banking, especially conventional banks, is one of the largest financial institutions that provide capital to companies or individuals in the financial system (My, 2020). Bank stability is something that needs to be controlled so that its role as the main intermediary financial institution in the economic system can be maintained.

The stability of the bank depends on profitability as one of the factors that can affect it. In the midst of the COVID-19 Pandemic which caused a slowdown in economic growth, the bank's efforts in making a profit in 2020 also weakened. This can be seen from the profitability ratios such as *the Return on Asset* (ROA) of the banking industry which continues to decline. The Financial Services Authority (OJK, 2016) noted that the ROA of banks industrially as of May 2020 was at the level of 2.08%.

Digitalization is one of the factors that can affect bank stability by applying new innovations to industrial systems, especially the financial services industry. According to Durai & Stella (2019), digital finance is a financial service that is delivered via *a smartphone* or *personal computer* using the internet to access *mobile banking*, *e-wallets*, mobile wallets, credit cards, and debits. The implementation of digital finance during the COVID-19 Pandemic has made it very easy for banks to continue to provide good financial services for their customers by carrying out their activities *cashlessly*. Based on the Deputy Commissioner of Banking Supervision I of the Financial Services Authority (OJK, 2018), Teguh Supangkat, *mobile banking* transactions also increased with a value of more than 300% from 2016 to August 2021.

Digital finance can help banks to facilitate their financial transaction activities in the period before and after the COVID-19 Pandemic. However, there are still problems in the banking industry that can affect financial transactions such as credit risk. The ever-rising credit risk can make it difficult for banks to maintain their stability. Credit risk is a risk that is likely to arise from a failure in the return of part of the credit given and become a non-performing credit so that it affects bank income (Idawati, 2017). Credit risk is a risk that must be maintained by

banks in the period before and after the COVID-19 Pandemic. OJK noted that the ratio of non-performing loans to banks has increased from the previous year at the level of 3.35%. The loan ratio as measured by *Non-Performing Loans* (NPLs) in the banking industry has increased amid the COVID-19 Pandemic. In August 2020, OJK noted industrially that NPLs increased by 60 basis points (bps) *year on year* (yoy) to 3.2%.

Overhead costs are the next factor that can affect the stability of the bank. *Overhead costs* are costs that banks incur to finance the implementation of operational activities. The COVID-19 pandemic has left companies that have assets in the form of physical or high overhead costs such as buildings or paying a lot of employee salary costs have been shaken. The phenomenon that arises due to the COVID-19 Pandemic is the triple *disruption* or three new habits that break the old culture, namely *digital disruption*, *millennial disruption*, and *pandemic disruption*. *Triple disruption* also has an impact on the banking sector. Digitalization makes banks have to slowly reduce branch offices to maximize the application of digitalization to their business activities. Banks that have not been able to adapt to *the triple disruption* can result in an increase in overhead costs due to increasingly large digital assets due to new innovations but banks still have many branch offices and have to pay the salaries of many employees. Bank Neo is a bank that is affected by its overhead costs. PT Bank Neo Commerce Tbk (BBYB) recorded a net loss of IDR 132 billion in the period from January to June 2021 due to the impact of the COVID-19 Pandemic which began in 2020.

Another factor that can affect bank stability is *non-interest income*. According to Wibowo & Mawardi (2017), *non-interest income* is one of the indicators that banks use to diversify income. Banks diversify revenues to increase profitability and mitigate risks. The COVID-19 pandemic has made banks look for new alternatives so that operating income growth continues. Bank Mandiri is one of the banks whose non-interest income is the driver of profit in the first half of 2020 with a value of IDR 10.9 trillion. Bank Mandiri's non-interest income was recorded to increase by 8.64% on an annual basis with a value of Rp13.59 trillion.

This research is the result of modifications, in the context of developing from previous research conducted by My (2020). The difference between this study and the previous study lies in the addition of variable calculations that were not studied by previous researchers, namely digital finance. The dependent variable in this study is only the stability of the bank. After that, this study used *Non Performing Loans* (NPLs) as proxies for credit risk and only made *overhead costs* and *non-interest income* as independent variables. Furthermore, this study used banking sector objects listed on the Indonesia Stock Exchange (IDX) while the object of the previous study was banking in Vietnam.

This study aims to determine, test, and analyze the influence of digital finance, credit risk, *overhead costs*, and *non-interest income* on bank stability before and after the COVID-19 Pandemic. Furthermore, this study aims to see the impact of digital financial potential, credit risk, *overhead costs*, and *noninterest income* on banking stability in Indonesia before and after the COVID-19 Pandemic period as measured using a *Z-score* based on a sample of conventional banks listed on the Indonesia Stock Exchange (IDX). After that, this study aims to see the benefits of factors that affect banking stability based on digital finance, credit risk, *overhead costs*, and *non-interest income*.

This research is expected to contribute to disciplines related to the financial sector, especially in the discussion of factors that can affect bank stability such as digital finance, credit

risk, *overhead* costs, and *noninterest income*. It is also hoped that this research can provide new insights and ideas for further research. This research is also expected to be able to identify the variable relationship between digital finance, credit risk, *overhead* costs, and *non-interest income* with bank stability, so that contributions in this study can help the banking sector in improving company performance and maintaining business balance.

LITERATURE REVIEW

Agency Theory

Agency theory discusses how important a division between management and managers of company ownership is. Jensen and Meckling (1976) say that an agency relationship is defined as an agreement between one or more *principals* who ask an *agent* to carry out his work with some decision-making authority. This theory relates to the stability of a bank because as a company whose capital consists of shares, a *Chief Executive Officer* (CEO) or manager will act as an *agent* and a shareholder as *principal*. Shareholders certainly want the bank to have a good performance in carrying out its role, so that the dividends they get will be a large amount.

Intermediary Theory

The theory of financial intermediation discusses one of the functions of banking, namely that banking has a big task as the main support in the economy of a country with the task of intermediation of funds from parties who are over-funded to those who need funds (Jhon Gurley, 1956). This theory is inseparable from banking stability. This theory studies the existing systems in sectors of the economy. Ketaren & Haryanto (2020) also added that customers who place their funds to banks as intermediation institutions have an interest in seeing the stability of performance and security of the funds they invest.

Banking

Banking is everything that concerns a bank including institutions, business activities, as well as ways, and processes in carrying out its business activities (Hermansyah, 2014). Based on Law Number 10 of 1998 on the amendment of Law No. 7 of 1992, a bank is a business unit that collects money from the community in the form of deposits and distributes it to the community in the form of loans or other forms to improve people's living standards. The bank has three main functions as follows:

1. Receive public funds in various forms.
2. Disbursing community funds in the form of loans for business development.
3. Providing a wide range of commercial services and domestic and international payment transactions.

Banks in Indonesia can be grouped generally according to two categories, namely the type of bank and its ownership. Based on the type, banks in Indonesia can be divided into two types, namely Commercial Banks and People's Credit Banks. Law Number 10 The 1998 amendment of Law No. 7 of 1992 defines a commercial bank as a bank that operates conventionally or based on sharia principles and provides payment services in its activities.

Furthermore, The People's Credit Bank is a bank that operates in a conventional way or in accordance with sharia principles and does not provide payment services in its business.

Bank Indonesia Regulation No. 13/1/PBI/2011, Regulatory Substance:

- a. Banks are required to assess the Bank's Health Level both individually and consolidated using a risk approach.
- b. Consolidated Assessment of the Bank's Health Level is carried out for banks that control the Subsidiaries.
- c. The assessment period is carried out at least every semester (for positions at the end of June and December) and updated at any time if necessary.
- d. Factors for assessing the Bank's health level consist of: Risk profile, Good Corporate Governance, Rentability (earnings), and Capital (capital).
- e. Each factor is ranked based on a comprehensive and structured analysis framework.
- f. Composite ratings are assigned based on a comprehensive and structured analysis of each factor's ratings taking into account the materiality and significance of each factor, as well as taking into account the Bank's ability to deal with significant changes in external conditions.
- g. Composite Rating Categories are Composite Rank 1 to Composite Rank 5. A smaller Composite Rating Order reflects the Bank's healthier condition.
- h. In conducting a consolidated health level assessment, the mechanism for rating each assessment factor and setting the Composite Rating as well as categorizing the rating of each assessment factor and composite rating must refer to the mechanism for assigning and categorizing the Bank's ratings individually.

Bank Stability

The definition of bank stability can be known by looking at the meaning of financial system stability. This is because banks, especially conventional banks, are one of the largest financial institutions that provide capital for companies or individuals in the financial system (My, 2020). Based on PBI NUMBER 16/11 /PBI/2014, financial system stability is a condition in which a country's financial system can function effectively and efficiently and is resistant to internal and external vulnerabilities. This allows the allocation of funds or sources of funds to contribute to the growth and stability of the economy. The financial system consists of financial institutions, financial markets, financial infrastructure, non-financial companies and households, and is a system that interacts in economic funding and/or financing. Bank stability is characteristic of the stability of the financial system. Bank stability is a condition in which the bank meets two basic requirements, namely improving economic performance and eliminating imbalances caused by endogenous factors from unforeseen or undesirable events from different banking risks (Djebali & Zaghdoudi, 2020).

Banks that have higher stability have a high *Z-score* value where the *Z-score* value ≥ 2.99 . Furthermore, if the bank's *Z-score* value has a value below 1.81, it can be said that the bank has the potential to experience bankruptcy and is declared unhealthy. After that, banks that have a *Z-score* value with a position of $1.81 \leq Z \leq 2.99$, the bank is categorized as entering the *gray area*, which is a condition where banks are prone to experience a risk of bankruptcy of 50%.

Table 1. Categories Bank Stability

| Category | Z-score value |
|----------------------------|-------------------------|
| Healthy (not broke) | ≥ 2.99 |
| Prone (<i>grey area</i>) | $1.81 \leq Z \leq 2.99$ |
| Unhealthy (bankrupt) | < 1.81 |

Source: Hanafi and Halim "Analisis Laporan Keuangan"

Digital Finance

Digital finance is a new innovation in the financial industry. By POJK No.13/POJK.02/2018, digital financial innovation is an update of business processes, business models, and financial products that create new added value in the financial services sector by integrating the digital ecosystem. Digital financial innovation has been widely implemented in the activities of financial service institutions. The Financial Services Authority (OJK,2019) conducts an assessment with *the Regulatory Sandbox* to assess the business processes, business models, financial instruments, and governance of those who carry out digital financial innovations whether they are running well or not. Digital finance can also be interpreted as a type of financial service that uses digital products such as personal computers, the internet, smartphones, or cards that can be connected to digital payment systems (Babarinde *et. al*, 2020). Digital financial innovation cannot be separated from financial service institutions, especially the banking sector. Babarinde *et. al* (2020) also suggested that the banking industry continue to strive to follow digital innovations in order to meet the demands of customers who already have knowledge of digitalization.

Credit Risk

Based on POJK No.18/POJK.03/2016, credit risk is a loss due to the failure of other parties to fulfill their obligations. Credit risk includes credit risk due to debtor default, credit risk due to concentration in the availability of funds (Credit Concentration Risk), credit risk due to counterparty credit risk, credit risk due to failure to settle payments, and credit risk that arises due to country risk. The business activities that banks carry out can be a source of credit risk. PBI NUMBER 13/23/PBI/2011 also states that credit risk arises due to the failure of customers or other parties in fulfilling their obligations to pay to the Bank in accordance with the agreed agreement.

Overhead Cost

Overhead costs are costs incurred by the company but are not directly related to the company's production process. According to Assaf *et. al* (2001), *overhead costs* have two types of costs in construction, namely company *overhead costs* and *overhead costs* in projects. *Overhead costs* in a company are also referred to as general and administrative *overhead costs*. This includes all costs incurred by the company in maintaining its business and also supporting the production process but is not directly related to the specific project. *Overhead costs* incurred by the company are one of the causes that can trigger failures in the company's business. Ashaf *et al* (2001) states that *overhead costs* are costs incurred by banks in carrying out their business operations.

The increase in *overhead costs* will affect interest rates, if the loan interest rate cannot compete with market interest rates, some sources of bank loans cannot move capital according to the market, so banks will be threatened and threaten losses because they have to bear too high costs (Andriyana & Kusumaningtias, 2019). Daoud & Cameroon (2020) also defines *overhead cost* as a cost that almost represents the entire personnel cost of the company.

Non-Interest Income

Non-interest income or non-interest income has the aim of supporting and accelerating financing and funding activities by providing other support services. *Non-interest income* is one of the indicators of banks in diversifying income (Wibowo & Mawardi, 2017). Ashyari & Rokhim (2020) stated that *non-interest income* is income sourced from three types of income, namely commission income, trading income, and other income. Based on Bank Indonesia Circular Letter No.6/23/DPNP dated May 31, 2004, *non-interest income* is operating income that is not obtained from interest income divided by operating income (Hidayat dan Miyamoto,2012).

Relevant Past Research

Based on research by Rusdianasari (2018), *financial technology instruments* that encourage the influence of financial inclusion on financial system stability performance. However, Ozili's research (2018) has resulted in digital finance having a positive effect on bank stability. This is because it can develop financial inclusion and have lower financing. Ozili's research (2018) is also supported by research by Banna and Alam (2020) which revealed that the implementation of digital finance on financial inclusion has a positive influence on banking stability and the financial system. It can also reduce the risk of uncertainty in banks and increase the country's financial mobility. The results of research by Risman *et. al* (2021) also prove that digital finance has a positive effect on bank stability.

The results of previous studies discussing credit risk and bank stability also found differences. Research by Pinasti & Mustikawati (2018) shows that credit risk has a positive effect on *Return on Assets* (ROA) and ROA is one of the indicators to measure bank stability. The research is inversely proportional to the results of My (2020) research which found that credit risk has a negative influence on bank stability. Matey (2021) in his research also found that credit risk has a negative influence on bank stability because of its inversely proportional value.

Based on previous research on *overhead costs* and bank stability, differences were found. The results of Tan's research (2016) show that overhead costs have a positive effect on ROA. Le & Ngo research (2020) proves that overhead costs negatively affect bank stability as measured by ROA. The research is in line with the results of Daoud & Cameroon's (2020) research which found that overhead costs have a negative influence on bank stability. This is because the greater the bank's expertise in controlling its risks, the more banks will be encouraged to take more risks with the use of overhead costs.

Research by Li *et. al* (2021) found that *non-interest income* has a positive effect on ROA. Li *et. al* (2021) also stated that this was due to the COVID-19 pandemic which made banking financial transaction services more often used. However, this research is not in line with My (2020) research whose results show that *non-interest income* negatively affects bank stability.

Previous studies have shown consistent results that can cause ambiguity in terms of decision making. Based on these differences in results, it is very important to conduct research again on bank stability and differences in research results are one of the motivations for researchers to conduct research again.

Frame of Mind

The research variable consists of a dependent variable, namely Bank Stability. Furthermore, the independent variables of this study consist of Digital Finance, Credit Risk, Overhead Cost, and Non-Interest Income.

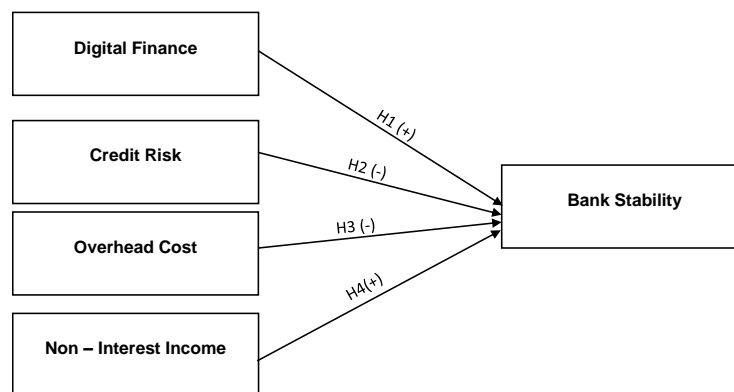


Figure 1. Frame of Mind

Hypothesis Development of the Influence of Digital Finance on Bank Stability

Agency theory makes *agents* need to think of various ways to maintain their performance and also need to be improved. Digital finance as a new innovation that can attract the attention of many people makes *it* necessary for agents to apply it to banking business activities. Digital finance that is constantly changing, an agent must also adapt to these rapid changes. Therefore, the agency theory of improving digital finance and making the influence of digital finance on bank stability positive.

The results of previous research related to digital finance on bank stability researched by Risman *et. al* (2021) show that digital finance has a positive influence on bank stability. However, this research is inversely proportional to Rusdianasari's research (2018) which proves that *financial technology instruments* that encourage financial inclusion have a negative effect on the performance of financial system stability. Furthermore, Ozili's research (2018) supports the results of research by Risman *et. al* (2021) which states that digital finance has a positive effect on bank stability because it can develop financial inclusion and have lower financing.

Ozili Research (2018); Risman *et. al* (2021) is also supported by research by Banna and Alam (2020) and Yudaruddin (2020) which revealed that the implementation of digital finance on financial inclusion has a positive effect on banking stability and the financial system. This can reduce the risk of uncertainty in banks and increase the country's financial mobility. Based on the above, then the hypothesis can be formulated:

H1: Digital finance positively affects bank stability

The Effect of Credit Risk on Bank Stability

The theory of intermediation states that the intermediation process acts as a supervisor. Furthermore, if this function is performed correctly, it will reduce non-performing loans and guarantee the stability of the bank. However, if the function is carried out ineffectively, it will have bad consequences. Therefore, based on this theory, the *non-performing loan* variable negatively affects the stability of the bank.

Research by Pinasti & Mustikawati (2018) shows that credit risk has a positive effect on *Return on Assets* (ROA) and ROA is one of the indicators to measure bank stability. The study is inversely proportional to the results of My (2020) research which found that credit risk negatively affects bank stability. The results of Matey's research (2021) also support My (2020) research by finding that credit risk has a negative influence on bank stability because of its inversely proportional value.

Credit risk as measured by Non Performing Loans (NPLs), it must be seen the value of the NPL ratio whether it is high or low. Declining bank credit growth and the number of non-performing loans can affect banking income and the efficiency of the banking system (My, 2020). Based on the above, then the hypothesis can be formulated:

H2: credit risk negatively affects the stability of the bank

The Effect of Overhead Cost on Bank Stability

Smaller overhead costs can be categorized as efficient because banks are better at managing operating costs and profits because they spend less on operating costs and higher operating profits. On the other hand, along with the growth of *overhead costs*, more and more budgets spent on overhead costs and operating profit decrease, so it can be concluded that banks do not manage their operations well. This is also supported by the agency's theory that agents will increase the company's overhead costs to make operational activities run well and bank stability and principal trust will be achieved and maintained.

Based on previous research on overhead costs and bank stability, differences were found. The results of Tan's research (2016) show that overhead costs have a positive effect on ROA. Le & Ngo research (2020) proves that overhead costs negatively affect bank stability. The research is in line with the results of Daoud & Cameroon's (2020) research which found that overhead costs have a negative influence on bank stability. This is because the greater the bank's expertise in controlling its risks, the more banks will be encouraged to take more risks with the use of overhead costs. Based on the above, then the hypothesis can be formulated:

H3: overhead cost negatively affects the stability of the bank

Effect of Non-Interest Income on Bank Stability

Intermediation theory can minimize the risks that occur in banks. This is because intermediation connects customers who need funds and deposit funds. Non-interest income is non-interest income obtained from *fee-based income* or *trading income*. *Fee-based income* is obtained when customers are conducting financial transactions at the bank such as transferring activities to other customers. Therefore, with the intermediation theory, *non-interest income* will increase and this will increase bank stability.

My research (2020) whose research results show that *non-interest income* negatively affects bank stability. However, this research is not in line with the research of Priono & Pangestuti (2019) and Li *et. al* (2021) which found that *non-interest income* has a positive effect on ROA. Li *et. al* (2021) also stated that this was due to the COVID-19 pandemic which made banking financial transaction services more often used so that *non-interest income* in banks increased. Based on the above, then the hypothesis can be formulated:

H4: non-interest income positively affects bank stability

RESEARCH METHODOLOGY

Population and Sample

The object of this study is based on the identification and formulation of predetermined problems, namely digital finance, credit risk, overhead costs, non-interest income, and bank stability in the banking sector, namely conventional banks listed on the Indonesia Stock Exchange (IDX). Furthermore, this study uses a period with an annual system, namely 2016 to 2020. Researchers used this period to find out how the influence of digital finance, credit risk, overhead costs, and noninterest income on bank stability in the period before and during the COVID-19 Pandemic. Researchers used data from 2016 – 2019 for the time period before the COVID19 Pandemic and 2020 for the period during the COVID-19 Pandemic. Researchers used the object of 40 banking companies listed on the Indonesia Stock Exchange (IDX).

Table 2. Definition and Measurement of Variables

| Variable | Definition | Formulation | Measurement Scale |
|--------------------|--|--|-------------------|
| Dependent | | | |
| Bank Stability | Conditions where banks can survive internal and external vulnerabilities and can contribute to the growth of national economic stability | $Z - \text{score} = \frac{ROA + \frac{E}{A}}{\partial ROA}$ ROA : Return on Assets (ROA) E : Total Equity A : Total Assets ∂ROA : Standard Deviation from ROA | Ratio |
| Independent | | | |
| Digital Finance | Types of financial services that use digital products and can be connected to digital payment systems | Digital financial measurement uses dummy variables, namely 1 if the bank uses mobile banking services and 0 if the bank does not use mobile banking services. | Nominal |
| Credit Risk | Losses suffered by the bank due to the failure of the other party in fulfilling its obligations | $= \frac{\text{Non - Performing Loan}}{\text{Non - Performing Loans}} \times 100\%$ Non-performing loans are all loans given to non-bank third parties with poor, doubtful, and bad quality. After that, the total credit is the amount of credit given to a non-bank third party. | Ratio |

| | | | |
|---------------------|--|--|-------|
| Overhead Cost | Costs incurred by the company but not directly related to the company's production process | $\text{Overhead Cost Ratio} = \frac{\text{Overhead Cost}}{\text{Total Assets}} \times 100\%$ <p>Overhead costs are overhead costs that have no interest costs in them and are incurred for fund raising and credit distribution activities including tax costs that must be paid. After that, the total assets are the overall assets that the company has at any given moment.</p> | Ratio |
| Non-Interest Income | Bank income earned other than interest income | $\text{Non - Interest Income} = \frac{\text{Non - Interest Income}}{\text{Operating Income}}$ <p>Non-interest income is divided into two components, namely trading income and fee-based income. Fee-based income is income (cash inflow) obtained from services provided by the company to customers in addition to loan interest income, administrative income, and service income. Furthermore, trading income is income earned from forex trading transactions, derivatives, or securities trading. After that, operating income is the total amount of the company's income obtained from interest income plus non-interest income.</p> | Ratio |

Data Processing and Analysis Techniques

Sugiono, 2018 explain descriptive statistical analysis is used to determine the mean, minimum, maximum, and standard deviation values of each variable. In addition, a test of classical assumptions was carried out to find out normality, multicholnearity, heteroskedasity. T-Test hypothesis testing for H1, H2, H3, and H4 then F-Test was also carried out in this study. Next, conduct a coefficient of determenation test. In this study, the system used was E-views-9. The equation in the multiple linear regression test is as follows:

Research Equation 1:

$$ZSCORE_{it} = \beta_0it + \beta_1KD_{it} + \beta_2NPL_{it} + \beta_3OVCS_{it} + \beta_4NIN_{it} + \epsilon_{it}$$

Research Equation 2:

$$ZSCORE_i = \beta_0i + \beta_1KD_i + \beta_2NPL_i + \beta_3OVCS_i + \beta_4NIN_i + \epsilon_i$$

Information:

- ZSCORE : Bank Stability
- β_0 : Constants
- $\beta_1,2,3,4$: Regression Coefficient
- Kd : Digital Finance
- Npl : Credit Risk
- OVCS : Overhead Cost

| | |
|---------------|-----------------------|
| NIN | : Non-Interest Income |
| ε | : Error term |
| i | : Company |
| t | : Time |

RESULT AND DISCUSSION

Research Samples

The observation period in this study was for 5 years (2016-2020). The source of this research data is an annual report published by each company. Sampling is carried out using non-probability sampling methods and purposive sampling techniques where there are certain considerations or criteria. With this method, several criteria were set so as to produce a total of 40 research samples. Equation I before the COVID-19 Pandemic period produced 143 observations and equation II during the COVID-19 Pandemic period produced 35 observations.

Descriptive Statistics

Descriptive statistics of the research variables can be seen in the table below. The number of observations 143 for equation I and 35 for equation II with the average of each variable can be seen below.

Table 3. Descriptive Statistics

| Variable | Model Equation Analysis I (2016-2019) Before the COVID-19 Pandemic | | | | | | |
|----------|--|----------|----------|----------|-----------|----------|----------|
| | Obs | Mean | Median | Max. | Min. | Std.Dev. | Sum |
| ZSCORE | 143 | 3.568392 | 2.890000 | 15.36000 | -3.080000 | 4.042700 | 510.2800 |
| D_KD | 143 | 0.657343 | 1.000000 | 1.000000 | 0.000000 | 0.476266 | 94.00000 |
| Npl | 143 | 3.568182 | 2.950000 | 15.82000 | 0.010000 | 2.406394 | 510.2500 |
| OVCS | 143 | 4.622517 | 3.710000 | 17.28000 | 1.280000 | 2.747542 | 661.0200 |
| NIN | 143 | 0.191538 | 0.180000 | 0.860000 | 0.010000 | 0.131322 | 27.39000 |
| Variable | Model Equation Analysis II (2020) Covid-19 Pandemic Period | | | | | | |
| | Obs | Mean | Median | Max. | Min. | Std.Dev. | Sum |
| ZSCORE | 35 | 1.588286 | 0.870000 | 7.850000 | -2.310000 | 2.508564 | 55.59000 |
| D_KD | 35 | 0.857143 | 1.000000 | 1.000000 | 0.000000 | 0.355036 | 30.00000 |
| Npl | 35 | 4.183714 | 4.000000 | 22.27000 | 0.000000 | 3.731288 | 146.4300 |
| OVCS | 35 | 4.006286 | 3.590000 | 14.39000 | 0.140000 | 2.489318 | 140.2200 |
| NIN | 35 | 0.281714 | 0.240000 | 0.860000 | 0.060000 | 0.183951 | 9.860000 |

Panel Data Analysis

Before conducting a panel data regression analysis, it is necessary to select the best panel data model to be used in the study. There are three approaches in the panel data model, namely common effect, fixed effect, and random effect. The determination of the model in this study will be carried out with the Chow Test and the Hausman Test. The explanation of the panel data testing results is as follows:

Chow Test

The Chow test was carried out to select a common effect model or fixed effect model to be used in regression analysis. The following are the results of the chow test in this study:

Table 4. Chow Test

| Research Equation I (2016 – 2019) Before the COVID-19 Pandemic | | | |
|---|-------------------|------------|--------------|
| Effect Test | Statistics | d.f | Prob. |
| Cross-section F | 56.015265 | (39,116) | 0.0000 |
| Cross-section Chisquare | 477.973284 | 39 | 0.0000 |

Source: Eviews 9 output, processed 2022

Based on the table above, the data output results state that the chisquare probability result from the regression model equation I with the fixed effect model is 0.0000. The value is less than 0.05 so H0 is rejected and H1 is accepted. Therefore, it can be concluded that both results of regression of research equations use a fixed effect model. So, the selected model is a fixed effect model and must be carried out further testing, namely the Hausman Test.

Hausman Test

The Hausman test was carried out to determine the research model between fixed effect models or random effect models that will be used in regression analysis. Here are the results of the Hausman Test in this study:

Table 5. Hausman Test

| Research Equation I (2016 – 2019) Before the COVID-19 Pandemic | | | |
|---|-------------------|------------|--------------|
| Effect Test | Statistics | d.f | Prob. |
| Cross-section random | 34.219229 | 4 | 0.0000 |

Source: Eviews 9 output, processed 2022

Based on the table above, it can be seen that the test results show a random cross section probability value in the analysis equation I of 0.0000. The probability value of the random cross section of the study equation 1 is less than 0.05, so H0 is rejected and H1 is accepted. Therefore, it can be concluded that the analysis equation I uses a fixed effect model.

Test of Classical Assumptions

Testing of classical assumptions is carried out with the aim of testing the accuracy of regression models in studies using secondary data sources. The classical assumption test conducted in this study is included in the normality test, multicollinearity, heteroskedasticity test, and autocorrelation test (Winarno, 2015).

Normality Test

The normality test can be used to test or detect in research whether in the model the regression between bound variables (dependent) and free variables(independent) has a distribution result that is normal or close to normal (Ghozali, 2017).

A model that is good and worth using if the model that has research data is normally distributed. Data that can be said to be normally distributed if it has a Jarque-Fallow probability above 0.05 or 5%. The results of the normality test of equation I after the outlier or disposal of research data showed that the data results had a probability value of 0.305068 where the probability value was greater than the Jarque-Bera probability value of 0.05 (5%) with a total of 143 observations. Therefore, it can be concluded that the data used in the model of the first

research equation in 2016 – 2019 are normally distributed. Furthermore, for equation II, the results of the normality test were obtained after outliers or data elimination in the study were carried out. The results of the data analysis showed that the data had a Jarque-Bera probability value of 0.163318 where the value was greater than the probability value of 0.05 (5%) with a total of 35 observations. Therefore, it can be concluded that the data used in the second research equation of the 2020 research year are normally distributed.

Multicholnearity Test

The multicholnearity test has the aim of determining the correlation of more than one linear relationship over the variables used. To detect whether there is multicholnearity or cannot be seen from the probability value of each variable, if each free variable (independent variable) has a probability value below 0.8 then it can be said that there is no multicholnearity, and vice versa if each free variable (independent variable) has a probability value above 0.8 then it can be said that there is multicholnearity (Nachrowi and Usman, 2006). The results of the multicholnearity test in this study are as follows:

Based on the data in the table above, each independent variable in the research regression model I has a value below 0.8. Therefore, it can be concluded that the regression model in research I did not occur problems in the multicholnearity test so that there was no linear relationship between the independent variables in the research equation.

The multicholnearity test used in the regression model in research II was by looking at the tolerance value and variance inflating factor (VIF). If the tolerance value > 0.10 or equal to the VIF value < 10 , then there is no multicholnearity in the study.

Based on the results from table 4.8 data above, to see the results of the multicollnearity test, it can be seen from the results of the Centered VIF column. The results of the data above show that the value for each independent variable has a VIF value of < 10 , so there is no multicholnearity in study II.

Heteroskedasticity Test

The purpose of the heteroskedasticity test is to find out whether in the regression model there is an uneven inequality of one observation to another (Gujarati & Porter, 2015). A regression can be declared not exposed to heteroskedasticity if it has a probability value above 0.05. However, if the probability value is less than 0.05, it can be concluded that there is heteroskedasticity in the data. Based on the results of the heteroskedasticity test, it was produced that all independent variables in the study equation I (2016 – 2019) were free from the problem of heteroskedasticity. This is shown by the p-value of all independent variables in the research equation I is above the probability value of 0.05.

The purpose of the heteroskedasticity test is to determine whether in the regression model there is an inequality of variance from the residual of one research data to other research data. One way to detect the presence of symptoms of heteroskedasticity is to use the Heteroskedasticity Test: Breusch-Pagan-Godfrey. A data can be said to avoid the symptoms of heteroskedasticity, namely if the probability value > 0.05 (Ghozali and Ratmono, 2017). Based on this test, it was found that from the regression results for equation II (2020) with the Heteroskedasticity Test test method: Breusch-PaganGodfrey obtained an Obs*R-squared value

of 3.738984 and the probability value of 0.4425 greater than $\alpha = 0.05$, which means that the residual homodexity is accepted, so that in the model there is no heteroskedasticity. In addition, the value of each variable shows a probability of sig > 0.05 so it can be concluded that in the model there are no symptoms of heteroskedasticity.

Autocorrelation Test

The purpose of the autocorrelation test is to test in a linear regression whether there is a correlation between the intruder error in the t period and the disruptor error in the previous period t-1 (Gujarati & Porter, 2015). The autocorrelation test in this study was carried out by comparing durbin-watson values (DW test). Based on this test, it was found that the two research equations did not have autocorrelations in the equations. The results of autocorrelation testing in this study can be seen as follows:

Table 6. Autocoleration Test Before and During the COVID-19 Pandemic

| Research Equation I (2016 – 2019) Before the COVID-19 Pandemic | | | |
|---|----------|-----------|-----------|
| Durbin-Watson Stat | | | 1.962588 |
| N | k | Dl | Du |
| 143 | 4 | 1.6697 | 1.7846 |
| Research Equation II (2020) Covid-19 Pandemic Period | | | |
| Durbin-Watson Stat | | | 1.796277 |
| N | k | Dl | Du |
| 35 | 4 | 1.2221 | 1.7259 |

Source: Eviews 9 output, processed 2022

Multiple Regression Analysis

The research model used to analyze the data in this study is a multiple linear regression model with the Eviews 9 software tool. Regression analysis is a statistical model that explains the pattern of relationships of 2 (two) or more variables through equations. The following are the results of multiple regression analysis, namely:

Analysis of Research Equations I (2016-2019) Before the COVID-19 Pandemic

Table 7. Multiple Regression Analysis Before the COVID-19 Pandemic

| Research Equation I (2016 – 2019) | | | | | |
|--|--------------------|-------------------|---------------------|--------------|-------------------|
| Variables | Coefficient | Std. Error | t-Statistics | Prob. | Conclusion |
| C | 3.730788 | 0.696365 | 5.357522 | 0.0000 | - |
| D_KD | 2.287241 | 0.558915 | 4.092285 | 0.0001 | Accepted |
| Npl | -0.466749 | 0.100945 | -4.623789 | 0.0000 | Accepted |
| OVCS | 0.109334 | 0.095571 | 1.144010 | 0.2553 | Rejected |
| NIN | -2.626615 | 1.453205 | -1.807463 | 0.0736 | Rejected |
| R-Squared | | | | | 0.827946 |
| Adjusted R-Squared | | | | | 0.762799 |
| Prob (F-Statistics) | | | | | 0.000000 |

Source: Eviews 9 output, processed 2022

Based on the regression results in the table above, the regression equation can be obtained as follows:

$$Z-score_{it} = 3.730788 + 2.287241D_KD_{it} - 0.466749NPL_{it} + 0.109334OVCS_{it} - 2.626615NIN_{it}$$

Analysis of Research Equations II (2020) Covid-19 Pandemic Period

Table 8. Multiple Regression Analysis during the COVID-19 Pandemic

| Research Equation II (2020) | | | | | |
|-----------------------------|-------------|------------|--------------|--------|------------|
| Variables | Coefficient | Std. Error | t-Statistics | Prob. | Conclusion |
| C | 2.070117 | 1.205379 | 1.717399 | 0.0962 | - |
| D_KD | 2.713317 | 0.995452 | 2.725713 | 0.0106 | Accepted |
| Npl | -0.270281 | 0.094852 | -2.849486 | 0.0078 | Accepted |
| OVCS | -0.128943 | 0.139811 | -0.922266 | 0.3637 | Rejected |
| NIN | -4.216610 | 1.885749 | -2.236040 | 0.0329 | Accepted |
| R-Squared | | | | | 0.441600 |
| Adjusted R-Squared | | | | | 0.367147 |
| Prob (F-Statistics) | | | | | 0.001220 |

Source: Eviews 9 output, processed 2022

Based on the regression results in the table above, the regression equation can be obtained as follows:

$$Z\text{-score}_i = 2.070117 + 2.713317D_KD_i - 0.270281NPL_i - 0.128943OVCS_i - 4.216610NIN_i$$

Digital Finance Positively Affects Bank Stability Before and During the COVID-19 Pandemic

These results are in line with or supported by Ozili's research (2018); Risman *et. al* (2021); Banna and Nature (2020); and Yudaruddin (2020). The application of digital banking to banks has made banks more profitable than before. Yudaruddin (2020) stated that *mobile banking* is one of the latest innovations in mobile technology that provides effective distribution channels compared to other distribution channels. A mobile banking function that provides efficient services anytime, anywhere, including on the go. In addition, with the increasing use of *smartphones*, the ability of banks to offer innovative services to improve operational efficiency and market share will have a significant impact.

The results of this study are also supported by agency theory. Ozili (2018) said that agency issues in digital finance consist of the goal of maximizing the profits of non-profit financial service providers and the goal of maximizing the well-being of those who use such financial services. On the supply side, private and public partnerships in the provision of digital finance can play an important role in digitizing the country's economy. This theory means that a manager or CEO as *an agent* will continue to improve his performance so that the principal's wishes will be fulfilled. The desire desired by the *principal* is like an increased income. Digital finance is a new innovation in the financial industry that can attract the attention of many people because of the practicality of running it. However, this research is not in line with rusdianasari's research (2018). Rusdianasari (2018) stated that digital finance with the role of *financial technology* has not been optimal in influencing financial stability, especially banking. Digital finance can only be achieved by people who know technology, speed, effectiveness, and efficiency so that *unbankable* people cannot use it yet.

Credit Risk Negatively Affects Bank Stability Before and During Covid-19 Pandemic

The results showed that credit risk or *Non-Performing Loans* (NPLs) negatively affect bank stability (*Z-score*). Therefore, these results explain that credit risk or *Non-Performing Loans* (NPLs) negatively affect bank stability in the period before and during the COVID-19 Pandemic. This is in line with the development of this research hypothesis, which means that hypothesis 2 (H2) is accepted.

The results of this study are in line with My (2020); Matey (2021); and Ketaren and Haryanto (2020). My (2020) states that credit risk as measured by *Non Performing Loans* (NPLs), it must be seen the value of the NPL ratio whether it is high or low. Declining bank credit growth and the number of non-performing loans can affect banking income and the efficiency of the banking system. Ketaren and Haryanto (2020) also stated that the higher the NPL, the lower the value of bank stability. The bank's level of bad debts makes it clear that the risk, the failure of customer trust, is borne by the bank. The higher the value of bad debts owned by the bank, the higher the customer default value. This increase in default is a credit risk that has a significant impact on the banking industry because it has an impact on the poor corporate performance as evidenced by the decline in banking stability. This is also supported by the theory of intermediation due to the relationship with bank funds lent to customers who need funds. Credit risk will arise when the customer is unable to pay his obligations so that the intermediation theory can increase the level of credit risk and make the bank have to regulate the level of risk to maintain its stability.

Overhead Cost Has No Effect on Bank Stability before and during the COVID-19 Pandemic

The results showed that overhead cost had no effect on bank stability (*Z-score*). Therefore, these results explain that overhead cost has no effect on bank stability in the period before and during the COVID19 Pandemic. This is not in line with the development of this research hypothesis, which means that hypothesis 3 (H3) is rejected.

A high overhead cost ratio may have a negative effect on bank stability because the lower the overhead cost, the more efficient the bank will be in maintaining its net income. However, banks have begun to implement digitalization so that the provision of financial services has begun to be automatic and this can cause the cost of wages to fall (Asutay & Izhar, 2007). The results of this study found that overhead costs did not affect bank stability. The results of this study are in line with the research of Dwiyanti & Azib (2019) and Demirhan (2013). However, this research is not in line with Tan's research (2016) which states that overhead costs have a positive effect and Daoud & Cameroon (2020) which proves that overhead costs have a negative effect on bank stability. Demirhan (2013) stated that the non-effect of overhead costs on bank stability is possible because of the low value of the overhead cost ratio so as not to cause changes in bank stability.

Overhead cost is also one of the components that affects the establishment of prime lending rates (PLR) for banks. OJK found that the SBDK component decreased every year. The lowest decline experienced by banking overhead costs was in 2019 and 2020.

The COVID-19 pandemic period, which is the cause of the world economic crisis, can also be one of the reasons for low banking overhead costs due to the implementation of restrictions on community activities in Indonesia (PPKM) which makes activities in the office

restricted. Based on the results of the study, the COVID-19 Pandemic period affected overhead costs because the mean value in research II was smaller than that of research I

i.e. $4.006286 < 4.622517$. On the other hand, the decline in the Z-score in research II was seen from the mean value of $1.588286 < 3.568392$ was caused by an increase in the value of credit risk or NPL and non-interest income which clearly affected bank stability. Therefore, it can be concluded that if bank stability is negatively affected by overhead costs, bank stability is not significantly affected due to a decrease in the value of overhead costs. These results are also supported by descriptive statistical results for both research equations which result in that the standard deviation value of overhead cost is smaller than the mean value. This is not in line with the agency's theory that agents will increase the company's overhead costs to make operational activities run well and bank stability and princiial trust will be achieved and maintained.

Non-Interest Income Does Not Affect Bank Stability Before the COVID-19 Pandemic and Negatively Affects During the COVID-19 Pandemic

The results showed that non-interest income did not affect bank stability (Z-score). The results explained that non-interest income did not affect the stability of banks in the period before the COVID-19 Pandemic. Furthermore, table 4.13 shows that non-interest income negatively affects bank stability (Z-score). The results explained that non-interest income had a negative effect on bank stability (Z-score) during the COVID-19 Pandemic. These two results are not in line with the development of this research hypothesis, which means that hypothesis 4 (H4) is rejected.

The results of research before the COVID-19 Pandemic where non-interest income did not affect bank stability in line with the research of Ikhsan & Hersugondo (2021). Ikhsan & Hersugondo (2021) stated that banks in Indonesia have not yet determined the impact of non-interest income diversification on bank profitability and risk. This shows that Indonesian banks still rely on traditional income to increase profitability and have not maximized the diversification effect associated with increasing profitability by using non-interest income sources.

Furthermore, the results of research during the COVID-19 Pandemic where non-interest income negatively affected bank stability in line with the research of My (2020) and Antao & Karnik (2022). Banks may become more dependent on non-interest income to protect their income. This negatively affects the stability of the bank. This is because the situation is still developing, the proper continuity of the situation in which it occurred is still unclear, and a clear statement is impossible. It is worth considering the role of macroeconomic variables. Inflation above a certain threshold is likely to affect the stability of the bank, but it is necessary to set the appropriate threshold for each group of countries and even for each country. Political variables, especially the role of monetary policy, need further explanation given the magnitude of the differences between countries in the implementation of such policies. Finally, the most important direction that needs to be expanded is to investigate the impact of the COVID-19 Pandemic on bank stability. As the effects of the pandemic are still ongoing in many countries, it will take some time to produce reliable data to analyze. The presence of the COVID-19 pandemic, which has an impact on the economy, still does not seem to have made Indonesian banks to diversify their income with non-interest income (Ikhsan & Hersugondo, 2021). This

is not in line with the theory of intermediation because nowadays, people prioritize digitalization and this affects bank non-interest income. Bank non-interest income can increase along with the development of the digitalization era. Examples of transactions that can increase non-interest income such as *top up* digital wallet balances using *mobile banking*.

CONCLUSION

Conclusion

Based on the results of previously described research, conclusions can be drawn related to digital finance, credit risk, overhead costs, and non-interest income to bank stability (Z-score) both before and during the COVID-19 Pandemic. Based on the results of the analysis and discussion above, the conclusions on the results of this study can be seen as follows:

1. Digital financial variables have a positive effect on bank stability, which is proxied with a Z-score on banks listed on the Indonesia Stock Exchange (IDX) in 2016 – 2020. The results are consistent in research equation I and research equation II.
2. The credit risk variable negatively affects bank stability, which is proxied with the Z-score in banks listed on the Indonesia Stock Exchange (IDX) in 2016 – 2020. The results are consistent in research equation I and research equation II.
3. The overhead cost variable has no effect on bank stability proxied with the Z-score in banks listed on the Indonesia Stock Exchange (IDX) in 2016 – 2020. These results are consistent in the equation of research I and the equation of research II and what distinguishes is the value of the coefficient before the COVID-19 Pandemic is positive while during the pandemic it is negative.
4. The Non-interest Income variable does not affect the stability of banks proxied with the Z-score on banks listed on the Indonesia Stock Exchange (IDX) in 2016 - 2020 before the COVID-19 Pandemic. However, the Non-interest Income (NIN) variable negatively affects bank stability, which is proxied with a Z-score on banks listed on the Indonesia Stock Exchange (IDX) in 2016 – 2020 during the COVID-19 Pandemic.

Managerial Implications

This research has contributed to knowing what factors can affect the level of bank stability before the COVID-19 Pandemic and during the COVID-19 Pandemic. Based on the results of research before the COVID-19 Pandemic, it was found that digital finance had a positive effect, credit risk had a negative effect, overhead costs had no effect, and non-interest income did not affect bank stability. Furthermore, during the COVID-19 Pandemic, it was found that digital finance had a positive effect, credit risk had a negative effect, overhead costs did not affect, and non-interest income had a negative effect on bank stability.

Digital finance, which has a positive influence on bank stability in the period before and during the COVID-19 Pandemic, is expected to make banks more aware of the importance of digitalization. The application of digitalization in banks can increase bank stability so that banks that have not applied it are expected to launch it soon and banks that have implemented it are expected to develop services on their applications such as mobile banking.

Furthermore, credit risk has a negative influence on bank stability in the period before and during the COVID-19 Pandemic is expected to make banks further improve their ability to

mitigate credit risk. After that, non-interest income has a negative influence on bank stability during the COVID-19 Pandemic, which is expected to make banks to further increase non-interest income by implementing digital banks and collaborating with other entities such as companies that run e-commerce.

Limitations

1. This study only uses data from banking companies listed on the Indonesia Stock Exchange for the period 2016 – 2020.
2. This study measured bank stability using only the Z-score, measured overhead costs divided by total assets, measured non-interest income divided by total operating income, and digital financial measurements using only dummy variables.

Suggestion

1. After that, the next researcher is expected to increase the research period.
2. Researchers are then expected to be able to use the latest measurements to measure existing independent variables and are expected to be able to measure overhead costs using overhead cost measurements divided by operating income if they continue to take samples of banks located in Indonesia.
3. After that, the next researcher is expected to be able to compare bank stability for banks that have implemented digital banking, namely banks that have launched mobile banking and for banks that have not.
4. Furthermore, researchers are also expected to multiply other independent variables that are likely to affect bank stability and use control variables that may affect bank stability, example credit risk, market risk, liquidity risk, operational risk, legal risk, strategic risk, compliance risk, and reputational risk.
5. Further research needs to examine financial system stability and macroeconomics, whether or not it has a positive correlation with health banking.

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