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Analysis and Determinants of Financial Inclusion in Indonesia: Panel Approach

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ABSTRACT

This research is to analyze financial inclusion and its determinants in Indonesia. The data analysis technique in this study is panel data using the eviews 9 application. The time series data is for 5 years, namely from 2015 - 2019 while the cross section data is 33 provinces in Indonesia. The findings of the study indicate that per capita Income and internet user has a positive and significant effect on financial inclusion in Indonesia. Then, Inflation an NPL (non performing loan) has a negative and significant impact on increasing financial inclusion in Indonesia.
Keywords*: financial inclusion, panel approach.*

1. INTRODUCTION

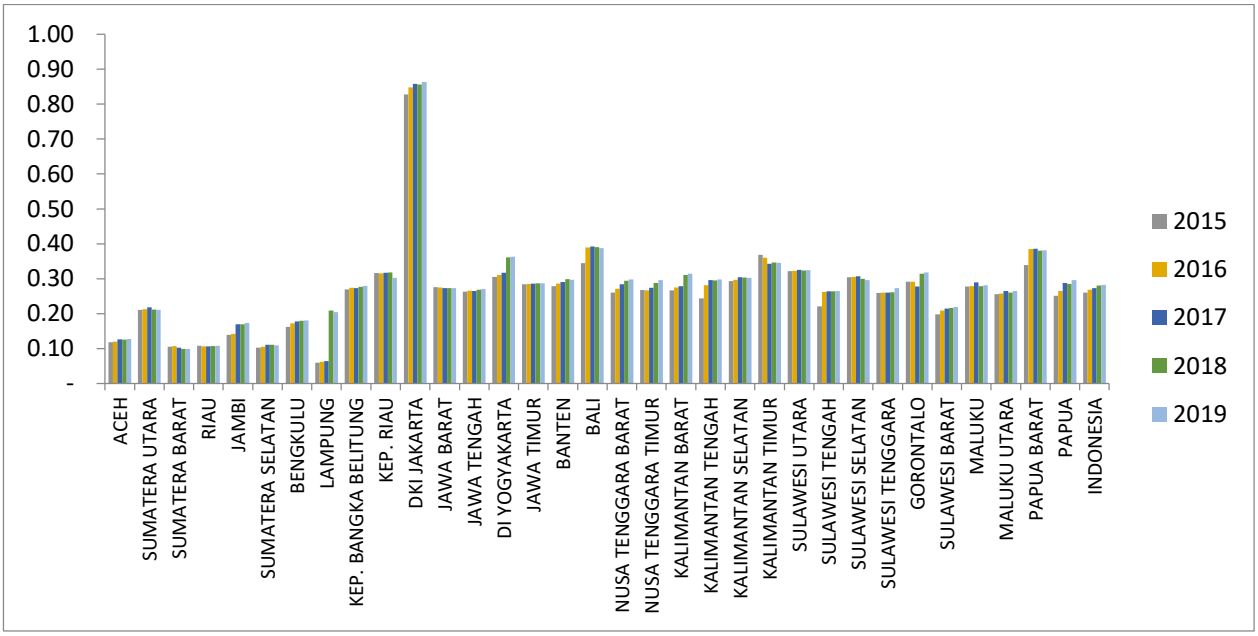
Financial inclusion is referred to as "the convenience of banking services at a cost that can be achieved by the community, especially those with low economic conditions. Unlimited access to public goods and services is an important thing needed by the community. Because after all, banking services are public services, so it is very important that the availability of services and low costs can be enjoyed by all people. [1]

In an era where economic strength is the main goal of every country, financial facilities and a comprehensive distribution of banking branches are a bridge to achieve that goal [1]. Low financial inclusion usually occurs in countries with high levels of income inequality. This is what ultimately triggers increasingly misaligned economic opportunities

Using the Indexes Financial Inclusion calculation model developed by [2] where it is said that financial inclusion is calculated based on 3 dimensions, firstly banking penetration, secondly Availability of banking services and lastly the usefulness of banking services. Financial institutions are one of the tools or work tools which then have a role in opening and expanding the reach and access of the Indonesian people to financial institutions. A well-functioning financial system is a fundamental prerequisite for economic and social development for the community. Financial markets and institutions play an important role in allocating and reducing transaction costs which are the causes of market failures, thereby increasing economic growth, spreading equality of opportunity, promoting wealth redistribution and reducing poverty [3].

Financial inclusion provides equal opportunities and opportunities for every level of society to participate in and benefit from access to financial institutions. Mbutor & Uba (2013) [4] assert that countries with better financial inclusion scores show better economic growth as well, and people who are "financially" are usually more productive, in consumption and investment. This is certainly able to make economic growth more inclusive, where growth can reduce poverty, increase job opportunities, reduce income inequality

Generally, financial inclusion has goals to increase the scope of good financial sector activities and include low-income people in it [4]. Using the Indexs Financial Inclusion calculation model developed by Sarma & Pais (2011) [2], below is the result of the calculation.



Source: The Financial Services Authority OJK, 2020 (data is processed using the Financial Inclusion Index method)

Note : IFI < 0,3 Low Inclusion
IFI > 0,3 < 0,6 Medium Inclusion
IFI > 0,6 High Inclusion

Figure 1. Financial Inclusion Index for 33 Provinces in Indonesia 2015-2019

Based on Figure 1 above regarding the financial inclusion index figure, it can be seen that nationally financial inclusion in Indonesia is still low, which is only below 0.30 percent. However, if viewed from the development of each year of data observation, it can be seen that the financial inclusion index in Indonesia increases every year. With a growth of 0.04% per year, although the figure is still below 0.30%. This shows the low level of financial deepening of the Indonesian people, both from the use of banking services, availability and use for the community.

Financial inclusion can be influenced by several factors, namely income per capita, inflation, NPL and Internet infrastructure. [6, 1, 7, 8] Per capita income is a measure of a country's progress, as is its financial inclusion. Countries with high per capita income illustrate good financial inclusion. These countries with high per capita incomes are more bank literate, can provide more assets. Thus, the banking services market is likely to be successful. [1]

Inflation is the main target of monetary policy, low and controlled inflation can help strengthen the financial sector. [6]

According to [9] [10] Annisa & Arifin (2019); Huang (2018), the higher the condition of non-performing loans in a bank will reduce public confidence in banking, so that it will affect the distribution of new credit to the public, but on the other hand, a decrease in the level of NPL causes the level of banking trust in the public to increase, which facilitates people's access to services. banking

Advances in information technology are increasingly helping society because it provides convenience in supporting various activities and has succeeded in influencing people's behavior. With time advances in technology and information, the banking industry is required to balance in providing ease of service to its customers. The increasing use of the internet in developing countries has finally triggered the emergence of internet banking services, that way, financial inclusion will also grow better [7] [8].

2. METHOD

2.1 Measuring Financial Inclusion

The level of financial inclusion is a measure to find out the extent of financial inclusion in a country. To find out how financial inclusion develops, a measure is needed, namely the Financial Inclusion Index (IFI). IFIs can include all information regarding the various dimensions of the financial inclusion system, namely from its access, how it is used, and what the quality of its banking services is like. [2]

This research adopts the Sarma model to calculate the level of financial inclusion in Indonesia. The

calculation is based on three dimensions, a) Banking Penetration Dimension The banking penetration indicator explains the extent to which people have bank accounts. This can show people's financial awareness to take advantage of banking products

However, due to the availability of data, this study uses data on third party funds (DPK) per 1000 adults. b) Dimensions of Financial Services Availability, his indicator of the availability of financial services explains the extent to which the banking industry is able to reach people around the region.

If the banking industry can be easily accessed by the public at large, it will be easy for the public to recognize and utilize banking products, so it is clear this can have an impact on the personal financial behavior of the community. his indicator of the availability of financial services explains the extent to which the banking industry is able to reach people around the region.

If the banking industry can be easily accessed by the public at large, it will be easy for the public to recognize and utilize banking products, so it is clear this can have an impact on the personal financial behavior of the community. In this research, the data used is the number of banking branches per a hundred thousand adult population to measure the availability.

c) Dimensions of Use of Banking Services, This indicator of the use of banking services explains the extent to which the public is able to use banking products in economic activity. This can explain people's behavior in managing finances in everyday life through these banking products. the indicator used is the ratio of credit to GDP.

The index of each dimension, (di) can be calculated by:

$$\text{di} = wi\,\frac{Ai-mi}{Mi-mi}\text{; i=1,2,3} \quad \text{.....(1)}$$

Where:

wi = weight for every dimension i, $0 \leq wi \leq 1$ Ai = current value of variable i mi = minimum (lower limit) of variable i Mi = maximum (upper limit) of variable i. if the index value of a dimension is higher, then the achievement in that dimension will also increase.

For example, the higher the availability dimension index of a province, the higher the number of banks accessible to the public in that province. To calculate the index of each dimension, weights are used. The weight is seen based on how much influence these dimensions have on changes in financial inclusion deepening.

In this research, all dimensions are assumed to have a very important but equally important role in determining the level of financial inclusion, so that each dimension has a weight of 1. In addition to determining the weight, to calculate the index of each financial inclusion dimension, the upper and lower limits of each indicator are also used. [1]

The upper and lower limits must be fixed values. The lower limit (mi) of each dimension in this study is 0. Meanwhile, to determine the upper limit (Mi) of each indicator, measured based on the distribution value of each indicator.

Therefore, the value of the financial inclusion index will range from 0 to 1. if the index value is closer to 1, it means the more inclusive the financial system is. If the distance between point O and point X is denoted by X1, that is:

$$X_1 = \frac{\sqrt{d_1^2+d_2^2+d_3^2}}{\sqrt{w_1^2+w_2^2+w_3^2}} \quad \text{.....(2)}$$

$$X_2 = 1 - \frac{\sqrt{(w_1-d_1)^2+(w_2-d_2)^2+(w_3-d_3)^2}}{\sqrt{w_1^2+w_2^2+w_3^2}} \quad \text{.....(3)}$$

After the three indices of the financial inclusion dimension in every province are calculated, the final index of financial inclusion can be calculated for each province in Indonesia. With the weight of each dimension of 1, the lower limit of each dimension 0, and the upper limit of each indicator that has been determined from the distribution of each indicator, the index of deepening financial inclusion from province K in Indonesia can be calculated by:

$$IFI = \frac{1}{2}\left[\frac{\sqrt{d_1^2+d_2^2+d_3^2}}{\sqrt{3}} + \left(1 - \frac{\sqrt{(w_1-d_1)^2+(w_2-d_2)^2+(w_3-d_3)^2}}{\sqrt{3}}\right)\right] \quad \text{.....(4)}$$

According Sarma & Pais (2011) [2] The results of the IFI calculation are divided into three (3) categories:

a) Low Inclusion is IFI value is less than 0.3

b) Medium Inclusion If the IFI value is between 0.3 - 0.6 and,

c) High Inclusion if the IFI value is between 0.6 – 1

This article uses panel data regression analysis. And the study using the eviews 9 application. Time series data is from 2015 - 2019 while cross section data is 33 Provinces in Indonesia. The basic equation for panel data regression is as follows:

$$Y = \alpha + \beta_1 \text{Log} X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon_{it}$$

Where:

Y = Financial Inclusion
α = Constant
β_1 , B_2, B_3, B_4 = Regression Coefficient of X_1 , X_2, X_3 dan X_4
X_1 = Per Capita Income (PDRB)
X_2 = Inflation
X_3 = Non Performing Loan
X_4 = Internet User
ε_it = Term of error

3. RESULTS AND DISCUSSION

The first dimension of deepening financial inclusion is "banking penetration" dimension which shows the large number of users of banking services which can be seen from the number of banking deposits per 1000 adults. Financial services will be more inclusive if more people save in banks. Based on table 1 below, this is about the quality of financial inclusion in the dimensions of banking penetration in Indonesia. Overall, the index on the banking penetration dimension is still low in Indonesia, which means that the Indonesian financial inclusion index is still below 0.30 points.

Refer to the calculation results in table 2 below in an aggregate manner that in this second dimension of financial inclusion, Indonesia is still at a low quality financial inclusion level. Only a few provinces have been able to achieve an inclusion index value above 0.30 points, namely Jambi, Yogyakarta, Bali, East Kalimantan, West Papua and Papua provinces. Meanwhile, DKI Jakarta has become a province with high quality financial inclusion. With the IFI, the dimensions of the availability reached 0.99 in 2014. And the rest are provinces with a low financial inclusion index. This certainly explains that people do not have equal opportunities to access banking services.

Based on the results of the author's calculations in table 3 below, we can see that the level of deepening of financial inclusion in Indonesia as a whole based on the dimensions of the use of banking services seen from the total financing disbursed by banks to the public is still relatively low in financial inclusion, and if the 3 indices on the dimensions of financial inclusion are calculated using the Sarma formulation, the level of deepening financial inclusion in 33 provinces in Indonesia is illustrated as follows. And the results of calculating the three-dimensional total financial inclusion have been presented in the introduction to this article.

Table 1.The Quality of Financial Inclusion in the Dimensions of Banking Penetration in Indonesia 2015-2019

Province	Indexs Financial Inclusion					Min	Max	Average
	2015	2016	2017	2018	2019			
ACEH	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,02	0,03	0,03
SUMATERA UTARA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,06	0,07	0,06
SUMATERA BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,03	0,03	0,03
RIAU	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,04	0,05	0,05
JAMBI	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,03	0,04	0,03
SUMATERA SELATAN	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,03	0,04	0,03
BENGKULU	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,02	0,03	0,02
LAMPUNG	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,01	0,02	0,02
KEP. BANGKA BELITUNG	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,04	0,06	0,05
KEP. RIAU	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,09	0,12	0,10
DKI JAKARTA	**High Inclusion**	**High Inclusion**	**High Inclusion**	**High Inclusion**	**High Inclusion**	0,81	1,00	0,91
JAWA BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,03	0,04	0,04
JAWA TENGAH	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,02	0,04	0,03
DI YOGYAKARTA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,04	0,07	0,06
JAWA TIMUR	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,04	0,06	0,05
BANTEN	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,04	0,07	0,05
BALI	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,07	0,10	0,08
NUSA TENGGARA BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,02	0,05	0,04
NUSA TENGGARA TIMUR	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,02	0,02	0,02
KALIMANTAN BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,04	0,05	0,04
KALIMANTAN TENGAH	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,03	0,04	0,03
KALIMANTAN SELATAN	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,04	0,05	0,04
KALIMANTAN TIMUR	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,09	0,10	0,10
SULAWESI UTARA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,03	0,04	0,04
SULAWESI TENGAH	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,02	0,03	0,03
SULAWESI SELATAN	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,03	0,04	0,04
SULAWESI TENGGARA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,02	0,03	0,03
GORONTALO	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,01	0,02	0,02
SULAWESI BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,01	0,02	0,01
MALUKU	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,03	0,03	0,03
MALUKU UTARA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,02	0,03	0,02
PAPUA BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,06	0,09	0,07
PAPUA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,05	0,06	0,05
INDONESIA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,06	0,07	0,07

Source: OJK, 2020 (data is processed using the Financial Inclusion Index method)

Table 2. Quality of Financial Inclusion in the Dimensions of Availability of Banking Services in Indonesia 2015-2019

Province	Indexs Financial Inclusion					Min	Max	Average
	2015	2016	2017	2018	2019			
ACEH	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,21	0,24	0,22
SUMATERA UTARA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,26	0,29	0,28
SUMATERA BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,14	0,17	0,15
RIAU	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,23	0,26	0,24
JAMBI	Low Inclusion	Low Inclusion	**Medium Inclusion**	**Medium Inclusion**	**Medium Inclusion**	0,28	0,34	0,31
SUMATERA SELATAN	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,17	0,18	0,18
BENGKULU	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,25	0,26	0,26
LAMPUNG	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,13	0,15	0,14
KEP. BANGKA BELITUNG	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,24	0,27	0,26
KEP. RIAU	**Medium Inclusion**	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,26	0,32	0,29
DKI JAKARTA	**High Inclusion**	**High Inclusion**	**High Inclusion**	**High Inclusion**	**High Inclusion**	0,93	0,99	0,96
JAWA BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,21	0,26	0,24
JAWA TENGAH	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,22	0,24	0,23
DI YOGYAKARTA	Low Inclusion	Low Inclusion	Low Inclusion	**Medium Inclusion**	**Medium Inclusion**	0,27	0,40	0,32
JAWA TIMUR	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,24	0,26	0,25
BANTEN	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,23	0,26	0,24
BALI	Low Inclusion	**Medium Inclusion**	**Medium Inclusion**	**Medium Inclusion**	**Medium Inclusion**	0,26	0,39	0,33
NUSA TENGGARA BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,16	0,22	0,19
NUSA TENGGARA TIMUR	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,19	0,22	0,21
KALIMANTAN BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,17	0,27	0,21
KALIMANTAN TENGAH	Low Inclusion	**Medium Inclusion**	**Medium Inclusion**	Low Inclusion	Low Inclusion	0,21	0,31	0,27
KALIMANTAN SELATAN	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,22	0,25	0,23
KALIMANTAN TIMUR	**Medium Inclusion**	**Medium Inclusion**	**Medium Inclusion**	**Medium Inclusion**	**Medium Inclusion**	0,41	0,49	0,45
SULAWESI UTARA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,28	0,30	0,29
SULAWESI TENGAH	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,15	0,25	0,21
SULAWESI SELATAN	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,24	0,27	0,25
SULAWESI TENGGARA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,23	0,27	0,25
GORONTALO	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,18	0,28	0,25
SULAWESI BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,15	0,16	0,16
MALUKU	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,20	0,25	0,23
MALUKU UTARA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,19	0,22	0,20
PAPUA BARAT	**Medium Inclusion**	**Medium Inclusion**	**Medium Inclusion**	**Medium Inclusion**	**Medium Inclusion**	0,46	0,63	0,54
PAPUA	Low Inclusion	Low Inclusion	**Medium Inclusion**	**Medium Inclusion**	**Medium Inclusion**	0,24	0,32	0,28
INDONESIA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,27	0,28	0,28

Source: OJK, 2020(data is processed using the Financial Inclusion Index method)

Table 3. Quality of Financial Inclusion in Dimensions of Useful Use of Banking Services in Indonesia 2015-2019

Province	Index Financial Inclusion					Min	Max	Average
	2015	2016	2017	2018	2019			
ACEH	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,15	0,19	0,17
SUMATERA UTARA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,26	0,28	0,27
SUMATERA BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,19	0,20	0,20
RIAU	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,08	0,09	0,09
JAMBI	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,14	0,18	0,16
SUMATERA SELATAN	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,16	0,18	0,17
BENGKULU	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,23	0,30	0,27
LAMPUNG	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,13	0,15	0,14
KEP. BANGKA BELITUNG	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,13	0,17	0,15
KEP. RIAU	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,13	0,14	0,14
DKI JAKARTA	**High Inclusion**	**High Inclusion**	**High Inclusion**	**High Inclusion**	**High Inclusion**	0,86	1,00	0,93
JAWA BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,17	0,20	0,19
JAWA TENGAH	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,17	0,20	0,19
DI YOGYAKARTA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,21	0,25	0,23
JAWA TIMUR	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,18	0,20	0,19
BANTEN	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,17	0,22	0,20
BALI	**Medium Inclusion**	**Medium Inclusion**	**Medium Inclusion**	**Medium Inclusion**	**Medium Inclusion**	0,30	0,33	0,32
NUSA TENGGARA BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	**Medium Inclusion**	0,18	0,32	0,24
NUSA TENGGARA TIMUR	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	**Medium Inclusion**	0,21	0,31	0,26
KALIMANTAN BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,21	0,26	0,24
KALIMANTAN TENGAH	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,15	0,20	0,17
KALIMANTAN SELATAN	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,22	0,27	0,25
KALIMANTAN TIMUR	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,10	0,10	0,10
SULAWESI UTARA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,26	0,29	0,28
SULAWESI TENGAH	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,17	0,18	0,17
SULAWESI SELATAN	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,24	0,26	0,25
SULAWESI TENGGARA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,14	0,18	0,16
GORONTALO	Low Inclusion	Low Inclusion	Low Inclusion	**Medium Inclusion**	**Medium Inclusion**	0,26	0,32	0,29
SULAWESI BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,12	0,17	0,14
MALUKU	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,20	0,26	0,23
MALUKU UTARA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,17	0,23	0,20
PAPUA BARAT	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,10	0,14	0,12
PAPUA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,11	0,15	0,12
INDONESIA	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	Low Inclusion	0,27	0,28	0,28

Source: The Financial Services Authority (OJK), 2020 (data is processed using the Financial Inclusion Index method)

Based on the Chow Test, the result of the probability of crossing F is 0.1760 > from alpha 0.05. it can be concluded that the best model used is the CE (Cammond Effect) model, then the Hausman Test is then carried out, where the random cross-section probability value is 0.1686 which means > 0.05. So based on the Hausman test, the best model used in this research is the RE models (rabdom Effect). Because the best model chosen is the Random Effect model, the Classical Assumption Test is no longer needed. [9].

Then the regression analysis that has been carried out aims to determine the measurable relationship of each X variables to the Y variable. The following is a table that summarizes the relationship that occurs in the X variables to the Y variable with panel regression analysis.

Table 4. The Relationship of Independent Variables to Dependent Variables

Variabel Dependen	Variabel Independen	Coefisien	t-satistik	Prob.
Financial Inclusion	Per Capita Income (PDRB/kap)	0.080138	3.765115	0.0002
	Inflation	-0.005577	-3.984972	0.0001
	Non Performing Loan	-0.017474	-2.021918	0.0449
	Internet User	0.004937	5.292825	0.0000
R Square	0.384000			
Adjusted R-squared	0.368600			
Prob (F-Statistic)	0.000000			

Source: Calculating with Eviews 9 Application

The results of the analysis show that the effect of per capita Income (X_1) on Financial Inclusion (Y) is positive and significant with the coefficient value of the Percapita Income variable is 0.080138 and a probability of 0.0002 < alpha 1% (0.01) then rejecting H0 and accepting Ha . This means that if the per capita Income increases by 1%, then financial inclusion (Y) will increase by 0.08 percent, assuming cateris paribus.

The results of this study are reinforced by the research findings of [2] [10] [8] [7] where the results of their research found that countries with high per capita income will also show high financial inclusion. This is because a high per capita income will increase the community's ability to access financial institutions and will ultimately increase financial inclusion

The next results carried out show that the effect of inflation (X_2) on Financial Inclusion (Y) is negative and significant with the coefficient value of this inflation variable of -0.005577 and a probability of 0.0001 < alpha 1% (0.01) then rejecting H0 and accept Ha. This means that if inflation increases by 1%, then the chance of increasing financial inclusion (Y) will decrease by 0.005% assuming cateris paribus. [6] [11] also found that one of the factors in terms of monetary policy is inflation, low and controlled inflation can play a role in helping to achieve an inclusive financial sector. [8]Annisa & Arifin (2019) 's research results confirm the results of this study where when Indonesian banks keep inflation low below 5%, have an influence on financial inclusion. where when inflation decreases, financial inclusion will also increase. A low inflation rate will be able to increase the use of financial services. This illustrates the need for a monetary role in maintaining inflation stability in Indonesia.

The results of the analysis show that the effect of (NPL) Non Performing Loans (X_3) on Financial Inclusion (Y) is negative and significant with the coefficient value of this Non Performing Loan variable is - 0.017474 and the probability is 0.0449 < alpha 5% (0.05). rejects H0 and accepts Ha. This means that if the NPL ratio increases by 1%, then the chance of increasing financial inclusion (Y) will

decrease by 0.02% with the assumption that cateris paribus.

Hannings & Janson (2010); Muhoza & Muriu (2018); Annisa & Arifin (2019), [12] [13] [8]confirm the findings of this study, that the higher the ratio of non-performing loans in the banking sector will further reduce the trust of the banking sector to the public so that it will affect the distribution of bank credit which is more prudent, but if the NPL is low, the level of bank trust in the public will increase so that it will facilitate public access to credit as a dimension of usefulness of banking services. Increased credit risk can pose a threat to financial stability.

The results of the analysis show that the influence of Internet Users (X_4) on Financial Inclusion (Y) is positive and significant with the coefficient value of this Internet User variable is 0.004937 and a probability of 0.00 <alpha 1% (0.01) then rejects H0 and accept Ha. This means that if the percentage of internet users increases by 1%, then the chance of increasing financial inclusion (Y) will increase by 0.004% assuming cateris paribus.

This research is supported by the research of Marini et al (2020) [14] which states in their research findings that an increase in the use of technology will further increase the achievement of deepening financial inclusion that is echoed by the government. The use of technology based on financial technology is already very widespread in the community. The Internet can also help businesses to more easily access the financial sector and engage in economic activities. In line with that, [1, 7] also found that technology infrastructure in the form of cellular and internet plays a role in increasing financial inclusion. Where business actors and MSMEs can also more easily manage their finances and in the end can improve business and welfare.

4. CONCLUSION

It can be concluded that the financial inclusion index in Indonesia is still in the low group or category, which is below the index of 0.30 points. this shows that the financial sector in Indonesia as a whole is not yet inclusive.

Then the research findings that have been carried out by the author in this study, the conclusions that can be obtained are that in the 2015-2019 period in Indonesia the GDP per capita variable, the internet user variable has a significant positive influence on financial inclusion in Indonesia. while inflation and NPL variables (Non-performing loans) have a negative and significant effect on the condition of financial inclusion. So from these findings, it is very important to continuously increase the level of financial inclusion in especially Indonesia. because financial inclusion is important to achieve an economic growth that continues to grow in a country, especially in Indonesia. For this reason, the role of the government and banking sector players is needed to work together in increasing the usability of banking services, namely by increasing every dimension of financial inclusion.

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