Analysis of Determinants Affecting Financial Inclusion in Indonesia

Irma Yuningsih[1], Dadan Rahadian[2]

[1,2]Telkom University, School of Business and Economics, GegerkalongHilir No.47, Bandung 40152, Indonesia

Abstract: *Financial institutions have a role to accelerate economic growth in a regionespecially in developing countries like Indonesia. This study use panel datacovering 22 provinces in Indonesia during the period 2013-2017 assess thebehavior and determinants of financial inclusion in the Indonesia. Increasedpopulation density has a beneficial impact on the deposit penetration. The level ofincome had a positive impact on the deposit penetration means that economicconditions are important to the improvement of financial inclusion. The proportionof the plant and its employees have a positive impact on financial inclusion meansthat income and employment creation or make people more active, aware andinterested in banking activities and contribute to financial inclusion.*

Keywords: Financial Inclusion, Data Panel, Fixed Effect Model.

1. Introduction

Indonesia's competitiveness (The Global Competitiveness Index) currently stands at 36, according to the World Economic Forum (WEF). This figure increased by 5 levels, compared to the previous 41. Unfortunately, the increase in the competitiveness of Indonesia difficult to compete with its own neighbors, such as Singapore and Malaysia, each of which is in position 3 and 23. Limited access to financial institutions be factored into the three highest obstacle competitiveness in Indonesia.

World Bank explained that financial access is the first step towards financial inclusion broader because it allows people to save money, send and receive payments. Transaction account (account) as access to finance can also serve as a gateway to other financial services such as credit and insurance, to start and expand businesses, invest in education or health, manage risks that can improve the overall quality of life.

The survey of financial inclusion index in 2013 was at 59.7% and 67.8% in 2016. The increase occurred either gender, income level, education, knowledge of the financial industry, to differences in conventional and Islamic. But it is still not enough considering the government's target is 75% of the adult population have access to formal financial services.

According to data from the Deposit Insurance Agency (LPS) noted, until now there are many people earning Indonesia does not have a bank account, of about 241 million people registered only 175 million accounts in 2015, meaning that there are still many people who save money conventionally. Financial inclusion index for the year 2013-2016 showed Banwa financial inclusion in Indonesia is still dominated by the banking sector amounted to 63.6% in 2016 while the index of financial inclusion others are still much lower, especially the capital market is a source of capital to improve the competitiveness of Indonesia ,

Thus, financial inclusion is not only an economic necessity but also a socio-political one. This study is an attempt to understand the behavior and determinants of financial inclusion in Indonesia, namely overcrowding, APPB, revenue, CD ratio, proportion and the proportion of factory workers. Econometric techniques used for the study panel data in 22 provinces in Indonesia for the period 2013-2017.

2. Literature Review

2.1 Financial inclusion

Financial inclusion is the right of every person to have access to and full services of financial institutions in a timely, convenient, informative, and affordable cost, with full respect to the dignity and status. Financial services available to all segments of society, with special attention to the poor, the productive poor, migrant workers and people in remote areas aimed at negating all forms of barriers that are the price and non-price, to access the public in using financial services and encourage economic growth through income distribution, poverty reduction and the stability of the financial system (Bank Indonesia). In its most basic definition, financial inclusion refers to the fact that a person has an account at a formal financial institution (Bruhn and Love, 2014). According to Carbo and Molyneux (2005) indicators for financial exclusion is owed, no bank accounts, no household insurance, without savings, has been disconnected, it has to borrow money. Penetration deposit measure the use of banking services, the penetration of higher deposit indicates the use of a larger service (Beck et al (2007), it is supported by research Kendal (2010) and the study also noted that the penetration rates of deposits can be used to predict the percentage of the population with a bank account with a fair degree of accuracy.

2.2 Population density

The population density, as measured by the population is divided by region. Even control the per capita income, the density was significantly correlated with the number of deposit accounts (Calem and Nakamura, 1998). Mihasonirina and Kangni (2011) found that the level of

income and population density are the two best predictors of penetration of deposits and loan products. The efficiency of the banks and the population density is positively associated with access to deposits. The population density is a proxy for the profitability of the bank branch well as more customers per branch can be reached in a congested area, and because of the infrastructure and other services available in the area are often more dense (Kendall, 2010).

2.3 Average Population per Bank Branch (APPB)

Average Population per Bank Branch is used to measure the reach of the financial sector in terms of access to physical outlet banks represent the average number of people served by each physical bank outlets. The higher demographic penetration will show fewer potential clients per branch or ATM, and therefore easier access (Beck et al, 2007). Burgess and Pande (2003), the study proves that rural branch expansion significantly affect the economic growth that the expansion of rural bank branches, savings mobilization and credit waste to increase the total output per capita. Nonfarm output and, in particular, small-scale manufacturing and services most affected by rural branch expansion.

2.4 Per Capita Income

Kendall (2010) found a significant association of penetration of deposit and credit penetration by income per capita, GDP per capita accounted for most of the cross-country variation in penetration deposits. GDP per capita explains most of the variation across countries. GDP per capita is very positively related to financial inclusion of all sizes; This explains most of the variation across countries. Per Capita Income or measured by per capita income net of gross regional domestic product (GDP) at constant prices. The GDP per capita has been put to understand the effects of the economic and financial position of the country on the penetration of the banking system (Kumar, 2013).

2.5 Credit Deposit Ratio

The size of the formal financial intermediary sector relative to the economic activity to measure progress in the financial sector or the "financial depth". Users depth financial result in that the size of financial intermediaries is positively related to the provision of financial services. One that is definitely out of "financial depth" equal to liabilities ratio of liquidity. Liabilities liquidity consists of currency held outside the banking system coupled with the demand and interest bearing liabilities of banks and non-bank financial intermediary's pure size of the financial system (King and Levine, 1993). Credit-deposit ratio (CD ratio) is the proportion of assets loans made by the bank of deposit received. The higher the ratio, the higher the loan assets created from deposits. CD ratio shows the efficiency at which commercial and financial intermediaries knocked savings of resources available and channeled into productive economic activities (Kumar, 2008). According to Kumar (2013) credit-deposit ratio is a basic indicator of how efficient savings mobilized and used to implement investment and capital formation. High CD ratio is usually associated with investment and higher growth.

2.6 Proportion of Factories

Rajan and Zingales (1998) says financial theoretically affect the growth and indicate that an externally-dependent industries - industries that are naturally heavy users of external finance - a relatively faster growth in economies with higher financial development. Beck and Levine (2002) said that the efficiency of the legal system and the overall financial development of industrial growth, the formation of a new formation, and efficient capital allocation. Industries that rely heavily on external finance grew faster in economies with higher financial developments overall. The proportion of factories that have been taken as a proxy for the rate of industrialization and modernization sociological. Usually developed economies with greater industrialization are expected to have a greater role for banking and financial activities (Kumar, 2013).

2.7 Proportion of Employment

Proportion of Employment or job status represents the status of individual jobs. They are more secure economic status tend to be financially excluded (FSA, 2000a; Hogarth & O'Donnell, 1997). Hogarth and O'Donnell (2000) has suggested that employment status is important in explaining current account holdings in the context of the US and the Financial Services Authority (FSA 2000a) points to the fact that people who are unemployed showed a low level of engagement with financial services. Hogarth and O'Donnell (2000) has suggested that employment status is important in explaining current account holdings in the context of the US and the Financial Services Authority (FSA 2000a) points to the fact that people who are unemployed showed a low level of engagement with financial services.

3. Research Model

The research model is shown in Figure 1. The panel data models with variable density, APPB, revenue, CD ratio, proportion and the proportion of factory workers to understand financial inclusion in Indonesia
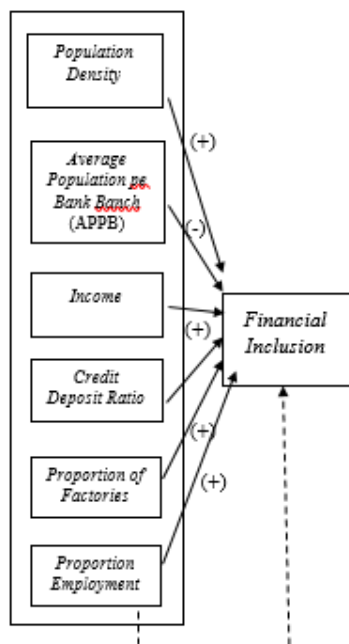
Figure 1: Research Model

3.1 Population Density and Financial Inclusion

The density was significantly correlated and the best predictor of the number of deposit accounts. More densely populated countries have geographical branch and ATM penetration is higher, and showed evidence of use of loan and deposit services is greater. Greater state has a number of branches and ATMs per capita is higher and tend to use more loans and deposits in terms of per capita. Research carried out (Kumar, 2013) argues that population density had no significant effect on the penetration and negative deposit. But in the study (Rajput, 2017; Calem and Nakamura, 1998; Mihasonirina and Kangni 2011) found population density has a significant and positive impact on the penetration of the deposit.

3.2 Average Population per Bank Branch APPB) and Financial Inclusion

The number of branches and ATMs greater per square kilometer reflects a smaller distance to the nearest physical bank outlets and thus facilitate geographical access. The size of branches and ATMs per branch reflects the average number of people served by each physical outlets and therefore a lower value implies fewer clients per branch or ATM, or in other words easier access.
Branch penetration among the population positively associated with the deposit (Burges and Pande, 2003; Beck et al, 2007; Kendall, 2010; Sathiyan and Panda, 2016). However, research conducted Kumar (2013) found the average population per branch has a negative effect on the penetration of the deposit as well as research Rajput (2017).

3.3 Per Capita Income and Financial Inclusion

The economic conditions are important determinants of financial inclusion efforts. The majority of developing countries with a high number of loans and deposits fell in the upper-middle class. The use of a limited banking services in

poor countries also validated the information about the ratio of loans (deposits) to GDP per capita. The average size of loans (deposits) compared to GDP per capita is significantly higher in low-income countries, shows the concentration in the utilization of services. The result strengthens the phenomenon of the use and the higher requirements for financial services with the improvement of living standards. The higher the income will provide a greater opportunity to save.

3.4 Credit Deposit Ratio and Financial Inclusion

CD ratio shows the efficiency at which commercial and financial intermediaries knocked savings of resources available and channeled into productive economic activities. Very important to have a strong financial system, which serves as the engine of growth and development for developing countries quickly. Research conducted Rajput (2017) argues that Credit Deposit has no significant effect on the penetration of the deposit as well as research conducted Kumar (2013).

3.5 Proportion of Factories and Financial Inclusion

Industries which naturally is a heavy user of external finance - a relatively faster growth in economies with higher financial development. Inadditionit shows that the industry contributed to GDP which is one important factor in financial inclusion. Besides the existence of the manufacturing industry can also see the proportion of employees where employees who work are paid that are usually sent through the account, meaning that the employees who work at the plant has financial inclusion, they also usually have insurance. Structural setting and the environment in the region have a role in determining the penetration of deposit (Kumar, 2013).

3.6 Proposition of Employment and Financial Inclusion

The proportion of employees showed that people who are employed seem to be more active, aware, interested in banking activities related to credit and deposit activity. Not only reduce the threat of poverty but also help to increase the level of income and, in the process of financial inclusion Kumar (2013). Research conducted Kumar (2013) found that the proportion of employees have significant and positive effect on the penetration of the deposit as well as research Rajput (2017).

4. Methods

The research method is a scientific way or rational, empirical and systematically to obtain data for the purpose and specific uses (Sugiyono, 2014: 2). Writing this research using quantitative methods with descriptive research approach and causality. This study aims to investigate the influence of the variable, the variable Policies population density (X1), average population per bank branch (APPB) (X2), income (X3), the credit deposit ratio (CD ratio) (X4), and the proportion of factories (X5), employment proportion (X6) on financial inclusion (Y). With a financial system that can

be accessed by the whole society will encourage economic growth, poverty alleviation, income generation and creation of financial system stability in Indonesia.

4.1 Data Analysis Technique

Methods of data analysis used in this study is panel data regression model with the help of an application program Eviews. Data with the characteristics of the panel is structured sequence of data at the same time cross section (Set of observation cross section (between individuals) in a given period). Data of this kind has the advantage mainly be robust against some types of violations of Gauss Markov assumptions, namely heteroscedasticity and normality (Wooldridge, 2003) (Ariefianto, 2012). The more explanatory variables, the more complex parameter estimation so take a few methods for estimating parameters, such as modeling approaches common effect, fixed effect and random effect.

Common effect is the technique most Simply put, in estimating panel data that combines premises only time series and cross section regardless of the dimensions of time and individuals can use OLS (AgusWidarjono, 2013). In effect Fix assumed that the intercept and slope (β) from the regression equation (model) is considered a good constant inter-unit and inter-unit cross section time series. Random effect is assumed to be random error.

$Y_{ti} = \beta_0 + \beta_1 X_1 ti + \beta_2 X_2 ti + \beta_3 X_3 ti + \beta_4 X_4 ti + \beta_5 X_5 ti + \beta_6 X_6 ti + \varepsilon_{ti}$

Y_{ti} = Financial Inclusion i in time t
$X_1 ti$ = Population Denstiyi in time t
$X_2 ti$ = Average Population per Bank Branch (APPB) i in time t
$X_3 ti$ = Income i in time t
$X_4 ti$ = Credit deposit ratio (CD ratio) i in time t
$X_5 ti$ = Proportion of factories i in time t
$X_6 ti$ = Proportion employment
β_0 = Constant
$\beta_1 - \beta_6$ = regression coefficient (slope)
ε_{ti} = Error firm i in time t

Before the data is processed by the model estimates, should be performed first election fo proper estimation models with chow test, Hausman test and lagrange multiplier test. Chow Test is a test to determine which of the two methods, common effect method and fixed effect method that should be used in panel data modeling. Hausman test is to determine which of the two methods of test random effects (random effect) and method (fixed effect) should be done in a panel data modeling. Then test the coefficient of determination forhow far the ability of the model to explain variations in the dependent variables and t tests as well and f to determine how far the influence of independent variables can explain the dependent variable individually and to indicate whether all the independent variables are used influence together towards one dependent variable (Ghozali 2005).

5. Result
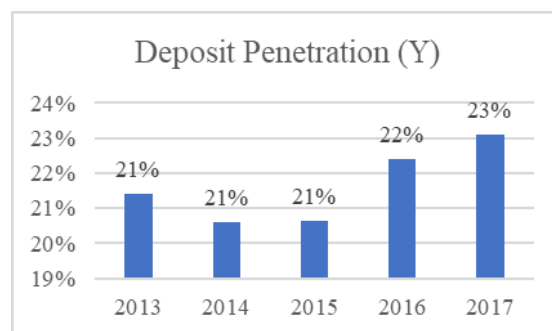
Figure 2: Penetration Deposit

Figure 2 shows the likelihood ratio of the deposit account of the population over the sample period 2013 to 2017. The penetration of deposits decreased in 2014 and increased until 2017. This means that the population tends to be more and more who have savings deposits from year to year.
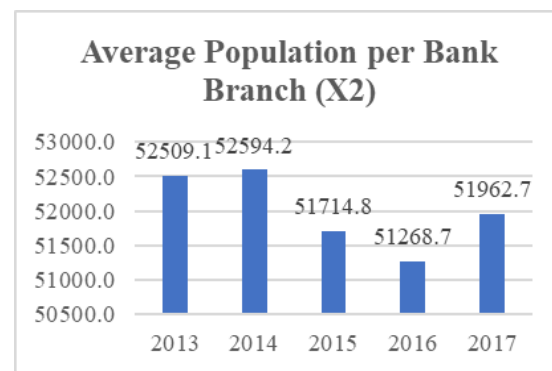
Figure 3: APPB

Figure 3 shows the likelihood of bank branches to the area over the sample period 2013 to 2017, which shows the tendency of the average population per bank branch fell and the lowest in 2016 means less people to a bank branch to make them can be served well.
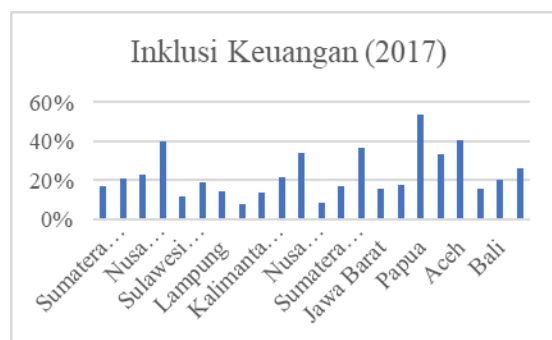
Figure 4: Penetration Deposit per province

Figure 4 shows the penetration of deposit per province in 2017. The province that has the highest penetration of deposits in Indonesia is Papua that is equal to 54%. The provinces that have lowest penetration rate 8% in Indonesia is South Sulawesi. Meaning that 54% of Papuans have savings deposits and only 8% of the population have savings deposit in the province of South Sulawesi.
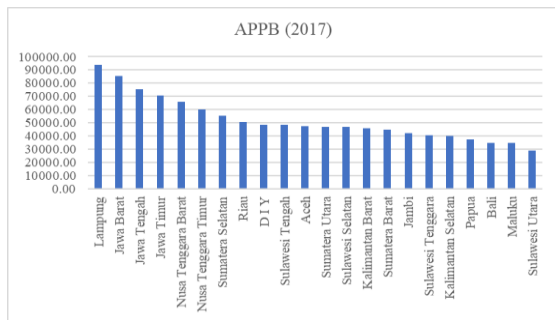
Figure 5: APPB per province

Figure 5 shows the provinces that have high levels of Average Population per Bank Branch in 2017 was the highest and the lowest Lampung province of North Sulawesi. This means that in 2017 the bank branch in Lampung to serve the population better compared to other provinces.

Table 1: Test Results Using Model Chow

Redundant Fixed Effects Tests			
Equation: Untitled			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	11.438223	(21,82)	0.0000
Cross-section Chi-square	150.530769	21	0.0000

Based on the test results in the test chow above it can be concluded following the model of Fixed Effect. Because the probability is 0.000 <0.05.

Table 2: Test Results Using Model Hausman

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	13.959197	6	0.0301

Based on the results of Hausman test above it can be concluded following the model of Fixed Effect. Because the probability is 0.0301 <0.05. At this stage of the estimation model election Fixed effect model was selected as the most appropriate model to be used in this study based on test chow and Hausman test, so no need to test the lag range multiplier.

Table 3: Estimation Model Fixed Effect on Panel Data

_ACEH--C	0.001221
_BALI--C	0.901296
_DIY--C	1.856646
_JABAR--C	-0.311270
_JAMBI--C	0.645230
_JATENG--C	0.379665
_JATIM--C	-0.645696
_KALBAR--C	-0.139778
_KALSEL--C	-0.183510
_LAMPUNG--C	-0.306909
_MALUKU--C	-0.009213
_NTB--C	0.069290
_NTT--C	-0.047540
_PAPUA--C	-0.099277
_RIAU--C	-0.546146

_SULSEL--C	-0.384214
_SULTENG--C	-0.246979
_SULTENGGA--C	-0.147874
_SULUT--C	0.101333
_SUMBAR--C	0.029551
_SUMSEL--C	-0.410679
_SUMUT--C	-0.505147

From the display above, it is known that the constant variable population density (X1) is -0.00231, APPB (X2) is 2.53E-06, income (X3) is 1.61E-06, CD Ratio (X4) is 0.019081, proportion of factories is -7.43E-09, and the proportion of employment is 3.35E-08. If written in the equation:

Financial inclusion = Constant of each province - 0.00231population-06APPB density + 2.53E + 1.61E-06income + 0.019081CD Ratio - 7.43E-09proportion of factories + 3.35E-08proportion of employment

Of constant variables can be seen that the constant variable is highest X3 or income means that the variable income is the most influential variable on financial inclusion, albeit at variable X4 and X2 constant is greater than the X3, but the probability is showing variable X4 and X2 has no effect on financial inclusion (to be discussed in the t-test). The constant is the highest province of Yogyakarta Province is 1.856646 meaning that DIY has the highest inclusion levels in Indonesia and East Java Province has the lowest constant means that -0.645696 East Java has the lowest inclusion level in Indonesia.

Table 4: Coefficient of Determination and F Test

R-squared	0.803086	Mean dependent var	0.206000
Adjusted R-squared	0.738248	S.D. dependent var	0.110621
S.E. of regression	0.056596	Akaike info criterion	-2.690436
Sum squared resid	0.262652	Schwarz criterion	-2.003041
Log likelihood	175.9740	Hannan-Quinn criter.	-2.411625
F-statistic	12.38609	Durbin-Watson stat	2.305929
Prob(F-statistic)		0.000000	

Based on the results of this study indicate that the value of the determinant coefficient (R2) obtained by 0.803066, or 80.3%. It shows that 80.3% Financial Inclusion is affected by the variable population density, APPB, income, CD ratio, proportion of factories and the proportion of employment. The remaining 19.7% is explained by other variables outside the model.

Based on the results of the panel data regression over that decision can be taken: In the table above the value of the F statistic = 12.38609 and the value Probability = 0.000000 <0.05. It can be concluded that the population density, average population per bank branch (APPB), income, credit deposit ratio (CD ratio), proportion of factories, and the proportion of employment together influential on financial inclusion.

Table 5: T Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.168550	0.285067	0.591262	0.5560
X1?	-0.002310	0.000983	-2.349920	0.0212
X2?	2.53E-06	3.49E-06	0.723317	0.4715
X3?	1.61E-06	2.65E-07	6.066687	0.0000
X4?	0.019081	0.016565	1.151905	0.2527
X5?	-7.43E-09	1.56E-09	-4.760658	0.0000
X6?	3.35E-08	1.46E-08	2.297961	0.0241

1) In the table above the sig value. population density = 0.0212 <0.05, which means that the independent variable population density partially has a positive and significant effect on the variable financial inclusion.
2) In the table above the sig value. APPB variable = 0.4715> 0.05, which means that the independent variable APPB partially has no significant effect on the variables of financial inclusion.
3) In the table above the sig value. income variable = 0.0000 <0.05, which means that the independent income variables partially have a positive and significant effect on the variables of financial inclusion.
4) In the table above the sig value. credit deposit ratio = 0.2527 variable> 0.05 which means that the independent credit deposit ratio variable partially has no significant effect on financial inclusion variables.
5) In the table above the sig value. proportion of factories variable = 0.0000 <0.05 which means the independent variable proportion of factories partially influences positive and significant for the variable financial inclusion.
6) In the table above the sig value. the proportion of employment variable = 0.0214 <0.05 which means that the independent variable proportion of employment partially has a positive and significant effect on the variables of financial inclusion.

6. Discussion and Conclusion

6.1 Effect of Population Density on Financial Inclusion

Population Density is one of the best predictors of penetration of deposit products and loans, reflecting the importance of income and the size of the market provision of financial services, the bank can make larger investments in banking infrastructure in high population density areas (Calem and Nakamura (1998)) , Population density is also associated with the penetration of larger branches. The results are consistent with research conducted by Calem and Nakamura (1998), Mihasonirina and Kangni (2011) and Rajput (2017) who showed that the population density effect positively and significant impact on financial inclusion. Residents are always increasing in the period 2013-2017 in Indonesia led to more dense regions, this suggests that the increase in population in an area will increase financial inclusion in the region. Influential population density towards financial inclusion as well as better infrastructure or other services are often more easily supplied and available in more densely populated areas.

6.2 APPB influence on Financial Inclusion

Every resident in each region should be able to access financial services is easy for people to engage in financial services. Higher bank branch in demographic and geographic terms as an indication of greater access to the use of financial services by households and companies. According to the average population per branch (APPB, hereinafter) has long been regarded as an important indicator of the accessibility of bank branches (Subba Rao, 2007; Burgess and Pande, 2003; Leeladhar, 2006). APPB used to capture demographic and geographic penetration of the banking system reflects the average number of people served by each physical outlets and therefore low value implies fewer clients per branch or in other words easier access. While the results from this study during the 2013-2017 study period in APPB experience fluctuations that are not in line with the ups and downs of financial inclusion. APPB not have a trend to obtain analytical results APPB variables no significant effect on financial inclusion. The results are consistent with research conducted by Kumar (2013) and Rajput (2017) who showed that APPB no effect on financial inclusion. This shows that the density of bank branches do not seem to be an important parameter for the public to engage in financial services deposit. The results are consistent with research conducted by Kumar (2013) and Rajput (2017) who showed that APPB no effect on financial inclusion. This shows that the density of bank branches do not seem to be an important parameter for the public to engage in financial services deposit.

6.3 Influence of Income on Financial Inclusion

It is important to know some economic conditions and the penetration of the banking system in an area within a certain time period to determine Income. The higher the income will provide a greater opportunity to save. Results from this study during the study period in 2013-2017 income has increased every year so that shows that the income effect on financial inclusion and income is the most influential variable on financial inclusion among other variables. This means that the higher the income, the higher also financial inclusion. The results are consistent with research conducted by Kumar (2013) and Rajput (2017) shows the fact that the rate of economic conditions are important determinants of financial inclusion efforts.

6.4 Credit Deposit Ratio Influence on Financial Inclusion

Credit deposit ratio is a measure to determine the development of the financial sector, the higher the ratio the higher the loan assets created from deposits. Results from this study during the study period in 2013-2017 experienced a credit deposit ratio down up and up quite a lot in the last two years and in line with research conducted by Kumar (2013) and Rajput (2017) who showed that Credit Deposit Ratio has no effect on financial inclusion occurs because the Credit Deposit Ratio has no trend. This shows that the Credit Deposit Ratio does not seem to be an important parameter for the public to engage in financial services deposit.

6.5 Effect of Proportion of Factories on Financial Inclusion

Usually the advanced economies with greater industrialization is expected to have a greater role for the banking and financial activities. Greater industry accounts for a large income and a larger labor as users of financial services. Results from this study during the study period in 2013-2017 Proportion of Factories has increased every year so that shows that the Proportion of Factories effect on financial inclusion. This means that the more an industry, the higher also financial inclusion. The results are consistent with research conducted by Kumar (2013) and Rajput (2017) who showed that the Proportion of Factories affect positively and significantly to financial inclusion.

6.6 Effect of Proportion of Employment on Financial Inclusion

They are more secure economic status tend not excluded financially and otherwise they are unemployed showed a low level of engagement to financial services. Most accounts and policies will not be targeted to those who do not have a job because they do not pull in the financial services business opportunities. Results from this study during the study period in 2013-2017 Proportion of Employment tends to increase every year so that shows that the Proportion of Employment effect on financial inclusion. This means that more and more working or secure economic status, the higher also financial inclusion. The results are consistent with research conducted by Kumar (2013) and Rajput (2017) which indicates that the Employment Proportion of positive and significant influence on financial inclusion. People who are employed seem to be more active, aware, interested in banking activities related to credit and deposit activity. These findings suggest that the development and social characteristics have an important influence on banking activities.

Based on the above results can be summarized as follows:
APPB and credit deposit ratio of partial no significant effect on financial inclusion. Population density, income, proportion of factories and the proportion of employment partially significant positive effect on financial inclusion. Based on these results, there are some things that can be suggested to the policy makers that can enhance financial inclusion, such as:

Increasing population density in an area shown to increase the financial inclusions means areas that are not densely less terinklusi therefore, people living in the area is not densely populated still need to gain access to finance one of them by increasing the program LakuPandai throughout the country are focused on reaching the community who stay away from the office of the bank, reducing the costs that would be avoided public or burdensome requirement by extending bank services without office

To raise the level figures the economy of a region that should be done is to raise the value of GDP then should be done to raise household consumption, increase government spending, increased investment such as stocks, increase exports and reduce imports, improve human resource capacity industry as well as to revitalize and upgrade technology and supporting infrastructure, supporting SMEs, improving the quality of education and labor laws more flexible.

References

[1] Badan Pusat Statistik. (n.d.). Retrieved from Badan Pusat Statistik: https://www.bps.go.id/

[2] Bank Indonesia Official Web Site - Bank SentralRepublik Indonesia. (n.d.). Retrieved from Bank Indonesia: https://www.bi.go.id/

[3] Beck, T., Demirgu¨c¸-Kunt, A. dan Martinez-Peria, S. (2007), "Reaching out:access to and use of banking services across countries", Journal ofFinancial Economics, Vol. 85 No. 1, pp. 234-66.

[4] Bruhn, M. dan Love, I. (2014), The Real Impact of Improved Access to Finance:Evidence from Mexico, The Journal Of Finance Vol. Lxix, No. 3 June 2014

[5] Burgess, R. and Pande, R. (2005), Do Rural Banks Matter? Evidence from theIndian Social Banking Experiment, American Economic Review, vol. 95(3),pp. 780-795, June.

[6] Calem, P. dan Nakamura, L., (1998) Branch banking and the geography of bankpricing, The Review of Economics and Statistics, MIT Press, vol. 80(4), pp.600-610, November.

[7] Carbo, S., Edward, P.M.G. dan Molyneux, P. (2005), Financial Exclusion,Palgrave Macmillan, London.

[8] FSA (2000a). In or out? Financial exclusion: A literature and research review.London: Financial Services Authority. Consumer Research Paper 3.

[9] Kementerian Perindustrian. (n.d.). Retrieved from Kementerian Perindustrian: www.kemenperin.go.id/

[10] Kendall, J., Mylenko, N. dan Ponce, A. (2010), "Measuring financial access around the world", Policy Research Working Paper No. 5253, The World Bank, Washington, DC.

[11] King R. G., Levine R. (1993) Finance and Growth: Schumpeter Might Be Right. Quarterly Journal of Economics, Vol. 108, pp.717–738.

[12] Kumar N., Verma P. (2008). Credit Deposit ratio and ownership structure in the Indian banking sector: an empirical analysis. Global Academic Society Journal: Social Science Insight, Vol. 1, No. 4, pp. 4-17. ISSN 2029-0365

[13] Kumar, N. (2013). Financial inclusion and its determinants: evidence from India. Journal of Financial Economic Policy, Vol. 5 Issue: 1, pp.4-19. doi:https://doi.org/10.1108/17576381311317754

[14] Mihasonirina, A dan Kangni, K. (2011), "ICT, financial inclusion, and growth: evidence from African countries", International Monetary Fund Working Paper WP/11/73, Washington, DC.

[15] OtoritasJasaKeuangan. (n.d.). Retrieved from OtoritasJasaKeuangan: https://ojk.go.id/

[16] Rajput, B. (2017). Financial Inclusion and its Determinants: An Empirical Study on the Inter-State Variation in India. International Journal on Arts, Management and Humanities, 6(1): 08-18.

[17] Sathiyan, S dan Panda P(2016). Financial Inclusion in India:An Analysis of Pattern and Determinants. Indian Journal of Finance 10(4):41

[18] Subbarao, D. (2009a), "Financial inclusion challenges and opportunities", Speech Delivered by Dr Duvvuri Subbarao, Governor, Reserve Bank of India, Bankers' club, Kolkata, December 9.

[19] World Bank Group - International Development, Poverty, & Sustainability. (n.d.). Retrieved from World Bank Group: https://www.worldbank.org/