Financial Inclusion of Sharia Banking and Poverty 33 Province in Indonesia

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Abstract
Through a conference held by the United Nations that produced the Sustainable Development Goals, poverty alleviation is the number one goal of seventeen goals. This study aims to look at the effect of Financial Inclusion in Islamic Banking and PDRB on Provincial Poverty 33 Province In Indonesia except North Borneo for Period 2014-2018. The financial inclusion indicator used in this study is the Islamic banking branch per 1000km2 as a dimension of access (BRNCH) and financing of Islamic banking to GDP Regional as a dimension of use (FNNC). Using a quantitative approach with panel data regression analysis techniques and random effect models as estimation models.The results of this study shows that there is a simultaneous significant effect between the inclusion of Islamic banking finance and GDP Regional on provincial poverty in Indonesia. While partially, the branch of Islamic banking per 1000 km2 does not have a significant effect on provincial poverty in Indonesia. GDP and Islamic banking financing towards GDP Regional have a significant negative effect on provincial poverty in Indonesia. this study examines the determinants of provincial poverty in Indonesia from the economic aspect. in future research, It is also necessary to consider and examine the dimensions of time and scope of research.

Keywords: *Financial Inclusion, Islamic Banking, Poverty*

1. INTRODUCTION

The Sustainable Development Goals (SDGs) were born at the United Nations Conference on Sustainable Development in Rio de Janeiro in 2012 (UNDP, 2012). The SDGs replace the Millennium Development Goals (MDGs), which began global efforts in 2000 to tackle poverty. According to the United Nations Development Program (UNDP, 2015), approximately 736 million people still live on less than $1.90 per day. Growth The economies that led to the fastest reduction in poverty occurred only in China and India, it was not evenly distributed across countries and was limited to other regions, such as South Asia and sub-Saharan Africa, which make up 80% of those living in extreme poverty. Likewise, Indonesia as a developing country, the problem of poverty is a multidimensional problem, which is related to social, economic, cultural and other aspects.

On the period 2014-2018 the development of the poverty rate in Indonesia (World Bank, 2014) report shows relatively fluctuating but from year to year it continued to experience a downward trend, The islands of Java and Sumatra have a markedly decreased poverty reduction compared to the other 5 islands. This indicates that the 2 islands are islands with productive economic activities compared to other islands(World Bank, 2014). The poor use most of their income for consumption. When income is only used for consumption, the life of the poor will find it difficult to improve their standard of living (Cingano, 2014). According to (Dermiguc-Kunt & Klapper, 2012), when there are financial barriers that bind the lives of the poor, they will remain poor and cannot improve their standard of living. The lack of access to and use of formal financial services is one of the financial barriers.

According to (BPS, 2016) to tackle poverty, the Indonesian government uses several instruments, including the People's Business Credit (KUR) and the Prosperous Family Savings (SKS). These two

instruments aim to slightly reduce financial barriers to the poor. SKS and KUR above are some examples of government programs to provide knowledge about finance or financial literacy. Financial literacy is knowledge and understanding of financial concepts and risks to apply this knowledge and understanding in order to make effective financial decisions, improve the financial well-being of individuals, society and participate in the economy (OECD, 2015). Financial literacy motivates people to plan and manage finances. World Bank (2014) stated that there is a positive correlation between financial literacy and the expansion of public access to financial service institutions.

This is in line with the (OECD, 2013) which states that education combined with the availability of access to formal financial products and services can encourage financial inclusion. Financial literacy is the main door to financial inclusion. OJK (2017) in report "national strategy financial literature Indonesia" states that there is a positive relationship between financial literacy and financial inclusion. The higher the level of financial literacy, the higher the financial inclusion. Measurement of the Islamic financial literacy and inclusion index is needed by all parties considering the development of the Islamic financial services industry has not shown a very large portion compared to the conventional financial services industry (OJK, 2017). In terms of potential, the growth of Islamic financial products and services utilized by the public is expected to be very high considering the number of Muslim populations in Indonesia is quite high. The National Financial Literacy Survey was also conducted on financial services sharia considering its development also participates in the economy. (OJK, 2017) states that banks still dominate the Islamic finance industry compared to others, which is 9.6% for the financial inclusion index. Apart from sharia banking, the sharia insurance and pawnshop industry also has a higher financial literacy and inclusion index than other financial industries. The sharia insurance financial literacy index is 2.5% with an inclusion index of 1.9%. While the sharia pawnshop financial literacy index is 1.6% with a financial inclusion index of 0.7%. Hard work is still needed to encourage Islamic financial literacy, especially in the Financial Institutions and Capital Markets industry (0,02%)

Research on the relationship between financial inclusion and poverty has become a trending issue that has attracted many academics as well as policy makers. (Neaime & Gaysset, 2018) conducted a study by looking at the effect of inclusion on poverty and inequality,This study took 8 samples from 19 countries located in MENA countries for the period 2002-2015. (Inoue, 2019) conducted a study looking at the effect of financial inclusion on poverty reduction in India for the period 1973-2004. The results show that financial inclusion has a statistically significant negative relationship with the poverty ratio. These results are supported by the results of (Park & Mercado, 2015) conducting research to see the effect of financial inclusion on poverty in developing countries in Asia in 2014.

Based on the literature and empirical research above, this study focuses on looking at the effect of Islamic banking financial inclusion with bank branch proxies per 1000 km2 as a dimension of access and the amount of financing to PDRB as a dimension of use of provincial poverty in Indonesia from 2014 to 2018. This study also uses one additional variable is the provincial PDRB.

2. METHODS

This study uses a quantitative approach that aims to identify the relationship between variables, hypothesis testing, and the data used must be measurable so that it can produce generalizable results (Anshori & Iswati, 2009). The quantitative approach in this study uses panel data regression analysis techniques melalui purposive sampling with the application of stata14 as a statistical tool that examines the effect of financial inclusion variables and PDRB on poverty in 33 provinces in Indonesia in 2014-2018 except north borneo. Bank branch offices per 1000 km2, this variable reflects the financial inclusion (BRNCH) dimension of access. The branch offices in question are a combination of BUS, UUS, and BPRS in 33 provinces in Indonesia except north borneo. The number of bank branch offices per 1000 km2, Percentage of total credit (financing) to PDRB. These variables reflect the financial inclusion dimension of use (FNNC). Credit (financing) is obtained from BUS, UUS, and BPRS in 33 provinces in Indonesia except north borneo. The percentage of total financing to GDP, and we classify the variables into the following broad categories:

Table 1. Descriptive Sample

Vari	Source
1 POV	The Central Statistics Agency (BPS)
2 FNNC	OJK $\frac{\text{total kedit perbankan (bulan t)}}{\text{total PDB (tahun t)}} \times 100$
3 PDRB	The Central Statistics Agency (BPS)
4 BRNCH	OJK $\frac{\text{total kantor cabang bank (bulan t)}}{\text{luas wilayah (tahun t)}} \times 100$

Source: Author

The PDRB variable used is the expenditure approach PDRB based on constant prices. PDRB according to constant prices is used to determine the ability of natural resources to encourage real economic growth from year to year or economic growth that is not influenced by price factors. PDRB data from 33 provinces in Indonesia. The data used in this study is secondary data from the Central Statistics Agency (BPS) and the Indonesian Financial Services Authority (OJK) in 2014 to 2018. This study uses panel data regression analysis with a random effect model estimation model. Hsiao (2007) suggests that panel data is able to provide more accurate model parameter inference. This is because panel data contains more degrees of freedom and varied samples than cross section and time series data which will increase the efficiency of econometric estimation. Model ekonometrika dari penelitian ini yaitu:

$$POV_y = \alpha + \beta_1 FNNC_{it} + \beta_2 \ln PDRB_{it} + \beta_3 BRNCH_{it} + \varepsilon_{it}$$

3. RESULT AND DISCUSSION

3.1. Result

The panel data regression process is divided into three steps to determine the best model for estimation results, whether the model used is the common effect model (CEM), fixed effect model (FEM), or random effect model (REM). The three steps include the Chow test, the Hausman test, and the Breusch-Pagan test. The three steps are presented as follows:

Chow Test

This test aims to compare and select the best modeling between CEM and FEM models. The null hypothesis is not accepted if the p-value is less than α 5%. At the beginning of the test, the best model was determined to determine the most appropriate model through the Hausman test. The initial hypothesis is:

H0 = common effect model

H1 = fixed effect model

From the Hausman test, it is found that the chi-square probability is more than 0.05, so H1 is accepted. So that the best model in this study uses a fixed effect model (REM), from the results of the Hausman test, the probability value is obtained as follows:

Table 2. Chow Test Results

Information	Probability
Prob> chi2	0.0000

Source: Stata 14.0 Data Processing

Hausman Test

In addition, by following the results of the chow test, the next step to ensure that the FEM model is the best model to be used in this study, the Hausman test was conducted to compare the FEM model with the REM model. At the beginning of the test, the best model was determined to determine the most appropriate model through the Hausman test. The initial hypothesis is:

H0 = random effect model

H1 = fixed effect model

From the Hausman test, it is found that the chi-square probability is more than 0.05, so H1 is rejected. So that the best model in this study uses a random effect model (REM), from the results of the Hausman test, the probability value is obtained as follows:

Table 3. Hausman Test Results

Information	Probability
Prob> chi2	0.2624

Source: Stata 14.0 Data Processing

Breusch-pagan Test

The final stage for selecting the best model is carried out by the Breusch-Pagan Test. This test is used to determine the best model between FEM and REM. At the beginning of the test, the best model was chosen to select the most appropriate model through the Breusch-pagan test. The initial hypothesis is:

H0 = common effect model

H1 = random effect model

From the Hausman test, it is found that the chi-square probability is more than 0.05, so H1 is accepted. So that the best model in this study uses the random effect model (REM), from the results of the Breusch-pagan test, the probability value is obtained as follows:

Table 4. Breusch-pagan Test Results

Information	Probability
Prob> chi2	0.0000

Source: Stata 14.0 Data Processing

The results of the three tests are described in the table above. The test results show that with table 2, in Chow's test, we can be sure that the fixed effect model

(FEM) model is better than the common effect model (CEM). This result is expressed by the Chi-Square cross-section probability is 0.0000, which means it is lower than α 5%, and there are significant individual and time effects. In addition, according to table 3 of the Hausman test, we can clarify that the appropriate model between the two models is the random effect model (REM) model. The test probability value is higher than α 5% (0.2624> 0.005). Therefore, to test which equation is the best model for this result, the Breusch-pagan test is needed. In the last step measured by the Breusch-Pagan test, we can conclude in table 4, that by using α 5%, the best model for this study is the random effect model (REM). Both p values are lower than α 5% (0.0000> 0.005).

Multicolinearity Test

This research involves using the Variance Inflation Factor (VIF) to test multicollinearity. The results are in table 5.

Table 5. Test results Multicollinearity Test - Variance Inflation Factors

Variable	Centered VIF
FNNC	1.08
LNPDRB	3.37
BRNCH	3.33

Table 5 shows that all VIFs are less than 10. This VIF value implies that none of the variables are highly collinear on each variable studied in 33 Province in Indonesia Except North Borneo. Discussion and interpretation in table 6. Results of the Random Effect Model panel regression test

Table 6. Random Effect Model - Estimation

Variable	Coefficient	Probability
C	65.46639	0.000 ***
FNNC	-1.443136	0.000 ***
LNPDRB	-3.076356	0.000 ***
BRNCH	-0.002809	0.645
Descriptive Statistic		
R-squared		0.390
Prob (F-stat)		0.000

* significant on α = 1%

** significant onα = 5%

*** significant onα = 10%

Source: Stata Data Processing

The constant value of 65,46639 means that when the financial inclusion of Islamic banking is proxied by the amount of financing to PDRB and bank branches per 1000 km2 and LnPDRB is zero, then the POV or poverty value is 65,46639. The value of total financing to PDRB (FNNC) is -1.443136 which means that when the level of total financing to provincial PDRB in Indonesia increases by one unit, it will reduce poverty by -1.443136 units. The value of bank branches per 1000 km2 (BRNCH) of -0.0028097 means that when the rate of bank branches per 1000 km2 of provinces in Indonesia increases by one unit, it will reduce poverty by -0.0028097 units. The PDRB (LnPDRB) value of -3.076356 means that when the PDRB of a province in Indonesia increases by one unit, it will reduce poverty by -3.076356 units. Based on the results of panel data regression using Stata 14 software, it shows the F test results in the table, F statistics shows the number 0.0000 is smaller than = 0.05, it can be concluded that H0 is rejected and H1 is accepted so that the Islamic banking financial inclusion variable is proxied by the amount financing to PDRB and bank branches per 1000 km2 and PDRB simultaneously have a significant effect on poverty in 33 provinces in Indonesia.

3.2. Discussion

In this discussion, in accordance with the results of panel data regression in the previous sub-chapter, it was found that Islamic banking financial inclusion proxied by bank branches per 1000 km2 had a negative but not significant effect on provincial poverty in Indonesia. This shows that when the financial inclusion proxied by bank branches per 1000 km2 increases, poverty will decrease.

These results are in accordance with research conducted by (Neaime & Gaysset, 2018) who conducted research in MENA countries. The results show that financial inclusion proxied by bank branches and ATMs has no significant effect on poverty. This effect arises because the banking structure in MENA is not sufficiently developed in terms of access to financial services to effectively affect poverty. The perceived benefits of having bank branches and ATMs are only felt in urban areas and do not reach the rural segment where the population is poorer. This is supported by research by (Dupas et al., 2018) who conducted research in Malawi and Uganda. The result is that there is a negative effect between the distance between bank branches and financial activities. So the farther the distance to financial access facilities,

While (Sarma, 2012) made a model to formulate IFI (Index of Financial Inclusion) stating that at least three basic dimensions are needed for a financial

inclusion system, namely: 1) Bank penetration, 2) availability of banking services, 3) use of the banking system. For bank penetration or the growth of bank branches in an inclusive financial system, it must have as many users as possible because the financial inclusion system must be felt by all users. The measure to determine the penetration dimension of a bank branch is to compare the adult population with the number of registered bank accounts. When the adult population with the same number of bank accounts or there is no inequality, then the financial inclusion is considered successful. , in accordance with the results of panel data regression in the previous sub-chapter, it was found that PDRB has a significant negative effect on provincial poverty in Indonesia. This shows that when PDRB increases, poverty will decrease. On the other hand, when PDRB decreases, poverty will increase. This is in line with research conducted by (Croes & Vanegas, 2008).

4. CONCLUSION

The conclusion of this study is that partially Islamic banking financial inclusion as a proxy for the amount of financing to GDP has a negative relationship and has a significant effect on provincial poverty in Indonesia. Partially, Islamic banking financial inclusion as proxied by bank branches per 1000 km2 and PDRB has a negative relationship and has no significant effect on provincial poverty in Indonesia. This is in line with research conducted by (Park & Mercado, 2015) which states that financial inclusion has a significant negative effect on poverty. In their research, (Park & Mercado, 2015) emphasize that the most important of financial inclusion to solve poverty is the role of microfinance. It is hoped that in the end the community will be able to carry out productive and consumption activities. This opinion is supported by (Chowdhury et al., 2005) who conducted research in Bangladesh on microcredit. The result is that the effect of microcredit on poverty is very strong. (Hannig & Jansen, 2011) conducted a recent study in South Africa highlighting the benefits of risk management and financial inclusion. They point out that deep understanding is needed for services to low-income households and micro-enterprise development. This will make low-income households more prosperous and out of poverty. Increasing access to credit for micro-enterprises can improve welfare. Suggestions for further research, this study examines the determinants of provincial poverty in Indonesia from the economic aspect. It is hoped that in future research, it will expand the determinants or aspects that affect poverty so that the analysis and study is more in-depth and comprehensive. It is also necessary to consider and examine the dimensions of time and scope of research.

5. UCAPAN TERIMA KASIH

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