



## THE EFFECT OF PENETRATION, AVAILABILITY, AND USAGE ON BANK PROFIT

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**Abstract:** National banking profit growth has been fairly good, seen from the results of the third quarter of 2017, large-scale banks that dominate the market have seen a significant increase. The increase in profit was due to the ability of banks to reduce costs and reduce the provision for bad loans. Financial inclusion, namely efforts to provide easy access, availability, and use of the formal financial system for all members of the economy without social exclusion. Financial inclusion has 3 indicators, namely penetration, availability, and usage. This study aims to determine the effect of penetration, availability, and usage on bank profits at 10 conventional commercial banks listed on the IDX. The independent variables are penetration, availability, and usage. The dependent variable is bank profit. This research uses quantitative methods and the purposive sampling technique. The author uses descriptive analysis and panel data regression analysis using fixed effects. The results showed that penetration, availability, and usage did not have a significant positive effect on bank profits. Banking companies should provide more effective financial services so that they benefit customers and attract investors.

**Keywords:** Bank Profit; Financial Inclusion

### INTRODUCTION

In Indonesia, the banking sector is currently growing. The growth of the banking sector has resulted in the growing number of banks in Indonesia and offering increasingly innovative products and services. The bank is a financial business entity that collects funds from the public in the form of deposits and distributes them to the public in the form of credit and/or other forms to improve the standard of living of many people (Darmawi, 2011). The role of commercial banks is to provide banking services to the public. In addition to carrying out their main duties as financial intermediaries, commercial banks also provide services both in fields that have financial or non-financial activities. Commercial banks play a role as the center of the country's economy because the money in circulation will flow into the bank, then the bank is circulated back into the economic system to carry out the economic process.

The activities of the bank collect funds in the form of demand deposits, savings deposits, and other deposits from parties that are excess funds (surplus spending unit) and then place them back to people who need funds (deficit spending unit). Several large banks in Indonesia that have controlled the market have shown through the financial reports of the results of the third quarter of 2017, that the national banking profit in the third quarter of 2017 increased significantly, namely the highest profit growth by Bank BNI of 31.6% to Rp 10.15 trillion in that period. Even though there are many banks in Indonesia, there are still many people who are not directly connected to banks such as rural communities. The low levels of literacy and financial inclusion in Indonesia mean that there are still many people who have not accessed financial services that have been provided by banks.

According to Marberya & Suaryana (2012), profit is the result of a period that has been achieved by the company, in which one of the potential information contained in the financial statements is important for internal or external parties of the company, which is used as an assessment of the company's earnings in the future. come. Factors that can affect profit growth, according to Hanafi et al in Sapariyah (2012) state that profit



growth can be influenced by several factors, namely: (1) The size of the company: The bigger a company, the higher the accuracy of the expected profit growth; (2) Age of the company: Newly established companies lack experience in increasing profits, so the accuracy is still low; (3) Leverage level: If the company has a high level of debt, then managers tend to manipulate profits so that it can reduce the accuracy of profit growth; (4) Sales rate: The high level of sales in the past, the higher the level of sales in the future so that the profit growth will be higher; (5) Changes in past earnings: The greater the change in past earnings, the more uncertain the future earnings will be.

According to Hery (2017), profit is the result of the difference between incoming resources (income and profits) and outgoing resources (expenses and losses). According to the Department of Development of Financial Access and MSME at Bank Indonesia (2014), financial inclusion is all efforts made to eliminate any form of price or non-price barriers to access for the public in utilizing existing financial services, to encourage economic growth, as well as financial system stability.

Sarma (2012) explains that financial inclusion is all forms of efforts made to provide easy access, availability, and use of the formal financial system for all members of the economy without social exclusion. According to Sarma (2012), financial inclusion has 3 indicators, namely penetration, availability, and usage. Penetration is equal access to financial services so that it attracts many users. The size used to calculate penetration is deposits. Availability, namely banking services must be easily available to users. The measure used to calculate availability is the number of ATMs. Usage is the use or use of banking services properly by users. The size used to calculate the usage is the amount of credit and deposits.

Ikram & Lohdi's (2015) examined the effect of financial inclusion on bank profits in Karachi, Jordan, with independent variables, namely cost of financial services, access of financial services, and usage of financial services. The dependent variable used is bank profit. The results of this research show that there is no relationship between the cost of financial service to the profitability of the bank, the second hypothesis is that there is no relationship between access of financial service to bank profitability, and the third hypothesis shows that there is no relationship between usage of financial service and profitability. bank. So it can be concluded that there is no significant relationship between financial inclusion and bank profitability (bank profit). Financial inclusion will run well, banking performance will be better and will affect the increase in bank profits so that it will attract investors to invest, as well as the welfare of society and the financial system will be better.

This study aims to determine the effect of penetration, availability, and usage on bank profits. The hypotheses in this study are:

- H<sub>1</sub>: Penetration has a partial effect on bank profits.
- H<sub>2</sub>: Availability has a partial effect on bank profits.
- H<sub>3</sub>: Usage has a partial effect on bank profits.
- H<sub>4</sub>: Penetration, Availability, and Usage simultaneously affect bank profits.

## METHODS

The sample of this research is 10 conventional commercial banks listed on the IDX for the period 2012–2016. The following is the bank name data in the sample of this study:



**Table 1. Research Sample**

Bank Name
BCA
BNI
BRI
BTN
CIMENIAGA
DANAMON
MANDIRI
MAYBANK
PANIN
PERMATA

Source: The data is processed by the author

The independent variables in this study are penetration, availability, and usage. While the dependent variable is bank profit. This research uses quantitative methods and the purposive sampling technique. The author uses descriptive analysis, panel data regression analysis, and hypothesis testing. The research method used is quantitative descriptive statistics, the data analysis technique was carried out by panel data regression analysis and hypothesis testing using the  $R^2$  test and t-test. Selection of panel data regression estimation model with Chow test and Hausman test. Chow test is used to select the right panel data model in this study, namely between the common effect model or the fixed effect model. Based on the results of testing the panel data regression model, the right model to use in this panel data regression is the Fixed Effect Model.

## RESULTS AND DISCUSSION

Selection of first-panel data regression estimation model with the Chow Test. This chow test is used to select the right panel data model in this study, namely between the common effect model or the fixed effect model. As the hypothesis contained in the Chow test are as follows:

$H_0$  = Common Effect

$H_a$  = Fixed Effect

If the chi-square cross-section probability value  $< 0.05$  then  $H_0$  is rejected and  $H_a$  is accepted, so the right panel data model to use is the fixed effect. On the other hand, if the cross-section probability value of chi-squares is  $> 0.05$  then  $H_0$  is accepted and  $H_a$  is rejected, so the panel data model used is a common effect.

**Table 2. Chow Test Results**

Redundant Fixed Effects Tests  
 Pool: POOL01  
 Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.390056	(9,37)	0.0302
Cross-section Chi-square	22.914416	9	0.0064

Source: The data is processed by the author



Based on the results of the chow test in Table 2, it can be seen that the cross-section value of the chi-squares is 0.0064. This means that with the cross-section value of chi-squares  $<0.05$ , it can be concluded that  $H_0$  is rejected, so the panel data model chosen and used is the fixed effect model.

Furthermore, the Hausman test, this test is used to choose between a fixed effect or a random effect. This testing criterion is if the Hausman statistical value is greater than its critical value, the appropriate model is the random-effects model. Meanwhile, if the statistical value of Hausman is smaller than its critical value, the correct model is the fixed effect model.

The hypothesis used in this statistical test is:

$H_0$  = Fixed Effect Model

$H_1$  = Random Effect Model

If the value of random crosssection  $> 0.05$  then  $H_0$  is rejected, which means that the value of the panel data model used is a common effect model. Meanwhile, if the value of random crosssection  $<0.05$ , the panel data model used is the fixed effect model.

**Table 3. Hausman Test Results**

Correlated Random Effects - Hausman Test  
 Pool: POOL01  
 Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	8.538001	3	0.0361

Source: The data is processed by the author

Based on the results of the Hausman test in table 3, it can be seen that the value of random crosssection is 0.0361, which means that the value of random crosssection  $<$ probability value, then  $H_0$  is accepted. So it can be concluded that the panel data model used is the fixed effect model.

Based on the results of testing the panel data regression model, the right model to use in this panel data regression is the Fixed Effect Model. Following are the results of the Fixed Effect Model test:



**Table 4. Fixed Effect Model Test Results**

Dependent Variable: Bank Profit  
 Method: Pooled Least Squares  
 Date: 02/27/18 Time: 16:05  
 Sample: 1 5  
 Included observations : 5  
 Cross-sections included: 10  
 Total pool (balanced) observations : 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.140468	4.202650	0.985204	0.3309
PENETRATION?	4.293285	2.673718	1.605736	0.1168
AVAILABILITY?	0.086308	0.853238	0.101153	0.9200
USAGE?	-1.998792	1.413560	-1.414013	0.1657
Fixed Effects (Cross)				
BCA-C	1.400086			
BNI-C	-0.172784			
BRI-C	0.965051			
BTN-C	-0.509325			
CIMENIAGA-C	-0.530814			
DANAMON-C	-0.146834			
MANDIRI-C	1.033278			
MAYBANK-C	-0.712550			
PANIN-C	-0.542792			
PERMATA-C	-0.783316			
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.871438	Mean dependent var	6.656909	
Adjusted R-squared	0.829742	S.D. dependent var	0.504250	
S.E. of regression	0.208066	Akaike info criterion	-0.083032	
Sum squared resid	1.601777	Schwarz criterion	0.414094	
Log likelihood	15.07581	Hannan-Quinn criter.	0.106276	
F-statistic	20.89983	Durbin-Watson stat	2.555688	
Prob(F-statistic)	0.000000			

Source: The data is processed by the author

Based on the results of the Fixed Effect Model test shown in Table 4, the panel data regression equation can be determined as follows:

$$\log Y = (\text{coefficient of each company}) + 4,140468 + 4.293285 \log \text{penetration} + 0.086308 \log \text{availability} - 1.998792 \log \text{usage} + e.$$

The coefficient of determination is used to see the size of the contribution made by the influence of penetration, availability, and usage on bank profits. Based on table 4, it is known that the R-squared value obtained is 0.871438 (87.1438%). These results indicate that all the existing independent variables, namely penetration, availability, and usage, can explain the dependent variable, namely bank profit, while the remaining 12.8562% can be explained by other variables not examined in this study.



Simultaneous hypothesis testing is carried out to see whether all the independent variables in the model have a joint influence on the dependent variable. The hypothesis used is:

$H_0$ : There is no significant effect simultaneously between penetration, availability, and usage on bank profits.

$H_a$ : There is a significant effect simultaneously between penetration, availability, and usage on bank profits.

Based on the results of data processing in table 4, the F statistical test on the fixed-effect model, the F-statistic probability value is 0.000000. So it can be seen that the F-statistic probability value is smaller than 0.05 (significance level). So it can be concluded that  $H_0$  is rejected, meaning that there is a positive significance simultaneously between penetration, availability, and usage of bank profits.

Furthermore, the partial test (t-test), this test is used to test how the influence of each variable is the independent variable and the dependent variable.

**Table 5. T-Test Results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.140468	4.202650	0.985204	0.3309
PENETRATION?	4.293285	2.673718	1.605736	0.1168
AVAILABILITY?	0.086308	0.853238	0.101153	0.9200
USAGE?	-1.998792	1.413560	-1.414013	0.1657

Source: The data is processed by the author

Based on the results of data processing in table 5, the following results are obtained:

Penetration ( $X_1$ ) has a t-statistic of  $0.1168 \geq 0.05$ , then  $H_0$  is accepted and then  $H_a$  is rejected. That is, penetration does not have a significant effect on bank profits. Availability ( $X_2$ ) has a t-statistic of  $0.9200 \geq 0.05$ , then  $H_0$  is accepted and then  $H_a$  is rejected. This means that availability does not have a significant effect on bank profits. Usage ( $X_3$ ) has a t-statistic of  $0.1657 \geq 0.05$ , so  $H_0$  is accepted and then  $H_a$  is rejected. This means that usage does not have a significant effect on bank profits.

Based on the results of data processing in table 5, it turns out that the t-statistical probability value of each independent variable is  $> 0.05$ , so it can be concluded that  $H_0$  is accepted, which means that there is no positive significance for each independent variable on bank profits.

Based on the results of tests carried out in this study, penetration has a probability value of 0.1168 which is greater than 0.05 (significance level). So it can be concluded that penetration does not affect bank profits.

Then, availability has a probability value of 0.9200 which is greater than 0.05 (significance level). So it can be concluded that availability does not affect bank profits. While usage has a probability value of 0.1657 which is greater than 0.05 (significance level). So it can be concluded that usage does not affect bank profits.

So penetration, availability, and usage have an F-statistic probability value of 0.000000 which is smaller than 0.05 (significance level) by showing a positive value. So it can be concluded that penetration, availability, and usage had a simultaneous effect on bank profits.



### CONCLUSION

Based on the results of the tests carried out in this study, according to the analysis that has been done, conclusions can be drawn regarding the effect of penetration, availability, and usage, as follows: Penetration, Availability, and Usage partially does not affect bank profits at 10 recorded conventional commercial banks. on the IDX. however, Penetration, availability, and usage simultaneously affected bank profits.

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