ANALYSIS OF FACTORS AFFECTING COMPANY VALUE (Empirical Study on Banking Sector Listed in IDX Period 2015-2019)

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Abstract *– The purpose of this study is to reduce the influence of Capital Adeuancy Ratio, Return On Risk Asset, Non Performing Loan, Net profit margin, Operating Expenses or Operating Income, on the value of the company measured with Price Book Value. The strategy in this study is associative, the population in this study is all banking companies located on the Indonesia Stock Exchange (IDX) during the period 2015-2019. Based on Purposive sampling method, the number of samples used in this study amounted to 85 observation data. The analysis method carried out in this study was the panel data regression method with three approaches namely, CEM, FEM, REM with the specifications of Chow test model and Hausman test and lastly classic assumption test. Testing with the Eviews 10 tool.*

Keywords **:** *Capital Adeuancy Ratio, Return On Risk Asset, Non Performing Loan, Net profit margin, Biaya Operasional atau Pendapatan Operasional Price Book Value.*

I. INTRODUCTION

Economic development can be seen from the development of the capital market, especially the capital market on the Indonesia Stock Exchange. The capital market plays an important role in supporting the implementation of national development in order to increase equality, growth, and national economic stability towards improving people's welfare (Ari Sudrajat, 2015: 23). indicated that issuers, JCI, and market capitalization in idx during the period 2015-2019 increased, in 2016

there was an increase in JCI from the previous year of 5,296.71 and an increase in the number of issuers by 14 new issuers and in 2017 the number of issuers increased by 33 new issuers and JCI soared very high, namely 6,355.65 so that the market capitalization figure got a value of Rp.7,052,388,625,802,910 which was previously Rp. 5,753,612,759,029,210 and received a slight decrease in 2018 JCI of 6,194.50 so that the market capitalization value decreased to Rp. 7,023,496,769,390,580 although the number of issuers increased by 55 new issuers, and until the end of 2019 the JCI figures and market capitalization re-increase, namely JCI 6,299.54 and market capitalization of Rp. 7,217,560,731,629,930 and the addition of 53 new issuers

The capital market consists of several sectors classified into 9 IDX sectors, such as agriculture, mining, basic and chemical industries, various industries, consumer goods industry, property, infrastructure, financial and trade (SahamOk, 2020; accessed 21 May 2020). The banking sector is one of the financial sectors in the capital market that is in great demand by investors to invest their capital, banking as a financial institution whose business activities are to raise funds from the public and re-channel the funds to the public and provide other bank services, one of the reasons is that banks are easier and easier to demand, because the capital is not much paid by the owner (Cashmere), 2016: 3). As an institution that affects the level of the economy, a healthy bank is a requirement for a healthy economy if the financial system does not work properly, then the economy becomes inefficient and economic growth is not expected to be achieved (Mangantar and mekel, 2015).

Furthermore, the purpose of the company is to maximize the value of the company because the higher the value of the company, the more interested investors will be to invest. The value of the company is also the investor's perception of the company's success rate to be able to provide maximum shareholder prosperity with the increase in the company's share price (Stiepu 2015; Sampurna and Romawati, 2019). A high increase in the company's value is a long-term goal that should be achieved by the company because investor's assessment of the company can be observed through the movement of the company's share price transacting on the stock exchange (Pratiwi and I Ketut, 2018). So the high share price makes the company's value also high (Harmono 2014: 144). The company's value in this study is proxies with Price Book Value (PBV) which is the value of the company reflected through the stock market price compared to its book value, the higher the market price compared to its book value, the higher the company's value (Switli and Murni, 2016).). The existence of price to book value for investors can be used to determine investment strategies in the capital market because through price to book value, investors can predict stocks that are overvalued or undervalued (Putri, 2016). The existence of price to book value for investors can be used to determine investment strategies in the capital market because through price to book value, investors can predict stocks that are overvalued or undervalued (Putri, 2016). The high and low value of this company depends also on various factors that influence it including Capital Adequacy Ratio (CAR), Return On Risk Assets (RORA), Noan Performing Loan (NPL), Net Profit Maergin (NPM), and Operating Costs or Operating Income (BOPO) (Komariah, 2017; Anwar, 2018).

II. LITERATURE STUDIES

2.1. Previous Reviews

The first research conducted by Halimah and Komariah (2017). The purpose of this study was to find out the effect of ROA, CAR, NPL, LDR, and BOPO partially and simultaneously on the company's value. The sample of this research *was Commercial* Bank go public listed on indonesia stock exchange from 2011 to 2015 to obtain data on published financial statements, using *purposive sampling method.* There are 25 Commercial Banks that meet the criteria as a research sample. The analytical method in this study is multiple linear regression analysis. Based on the results of data analysis and discussion, the results of this study are the results of Partial

Testing (Test t Statistics) ROA, CAR, and LDR had a significant effect on the company's value, while NPL and BOPO had no significant effect on the company's value at Commercial Banks *going public* in 2011-2015, and the simultaneous test results (Statistical F Test) of ROA, CAR, NPL, LDR, and BOPO simultaneously (together) had a significant effect on the company's value in commercial *banks going public* in 2011-2015.

The second research was conducted by Repi, *et.,al* (2016). This study aims to test the influence of ROA, ROE, Corporate Risk, LDR, NPL on Company Value, simultaneously or partially. This study used banking subsectors located on the Indonesia Stock Exchange consisting of 41 banks *that have gone public and the* sample used amounted to 14 banking subsector companies that had a complete report during 2011-2014 obtained through *purposive sampling method*. Data analysis techniques use multiple regressions previously tested with classical assumptions. The results showed that simultaneously ROA, ROE, Corporate Risk, LDR, and NPL have a significant effect on the company's value. While partially ROA has a positive and significant effect, on the company's value, ROE has a positive and insignificant effect on the company's value, The Company's Risk and LDR have a negative and significant effect on the company's value and the NPL has a negative and insignificant effect on the company's value. Companies should pay attention to ROE, and NPL, because it can have an impact on the value of the company.

The third research was conducted by Anwar (2018). The purpose of this research is to analyze the influence of financial performance and *corporate social responsibility* (CSR), on the company's value. This research was conducted by taking data from the Indonesia Stock Exchange through the official website of IDX, namely www.idx.co.id. The source of this research is secondary data obtained historically from the financial statements of banking companies in the period 2011-2015 using the population of *all banking companies go public* amounting to 43 banks, but based on the completeness of the data, only 22 banks were sampled with the observation period 2011 - 2015. Independent variables are *non-performing loan* (NPL), *Loan to Deposit Ratio* (LDR), Return On *Assets* (ROA), *Capital Adequacy Ratio* (CAR), and Corporate Social *Responsibility* (CSR), while the variables depend on the company's*value (Price Book Value).* Data analysis used multiple linear regression analysis. The results of this study showed that ROA has a significant influence on the company's value, while NPL, LDR, CAR, and CSR do not have a significant influence on the company's value.

The fourth research was conducted by Pratiwi and Yadnyana (2018). This study aims to analyze the influence of profitability, *growth opportunity,*liquidity, and capital structure on the value of the company. The research population is all banking companies listed on the Indonesia Stock Exchange in the period 2012-2016 which amounted to 43 bank companies and the sample in the study was 17 companies. This type of research is a descriptive quantitative approach. The analytical method in this study is multiple linear regression analysis. Financial report data obtained by accessing the official website of indonesia *stock exchange.* The method used to analyze the company's value is to use *the Price to Book Value* (PBV) approach. The results of the analysis showed *profitability, growth opportunity,*and capital structure had a positive effect on the company's value, while liquidity had no effect on the company's value.

The fifth research was conducted by Suranto, *et.al.,*(2017). This study aims to analyze the influence of capital structure and financial performance on the value of the company. The population of this study was banking companies listed on the Indonesia Stock Exchange for the period 2013-2015 with a sample of 31 companies selected *using purposive sampling.* Independent variables used in this study are *capital structure as measured by debt to equity ratio* (DER) and keungan performance as measured by return on *assets* (ROA) *and non performing loans* (NPL) as

well as dependent variables that are company values as measured by price to *book value* (PBV). The analysis method used is descriptive statistics and multiple linear regression analysis. The results of this study showed that the capital structure has a positive effect insignificant on the value of the company, ROA has a positive and significant effect on the value of the company, NPL negatively affects the value of the company, and the capital structure and financial performance simultaneously have a significant effect on the value of the company.

The six research is research that has been done by Sari and Priantinah (2018). This study aims to determine the influence *of Non Performing Loan, Loan to Deposit Ratio, Return on Asset, Capital Adequacy Ratio, and Corporate Social Responsibility on the* company's value. The effect of financial performance *and Corporate Social Responsibility* (CSR) on the company's value on banks listed on the Indonesia Stock Exchange for the period 2011-2015. This research is a comparative kausal research. The population in this study was a banking sector company listed on the Indonesia Stock Exchange for the period 2011-2015.Sampling techniques *with purposive sampling.* Data collection techniques using documentation. The analytical technique used is multiple linear regression. The results of this study showed that, *Non Performing Loan* has a negative and *insignificant effect on the company's* value, Loan to Deposit Ratio negatively and does not affect the *company's* value, Return on Asset has a positive and significant effect on the company's value, *Capital Adequacy Ratio has* a positive and insignificant effect on the company's value, Corporate Social *Responsibility* has a positive and insignificant effect on the company's value, and there is an influence of financial performance (NPL, LDR, ROA, and CAR) and Corporate Social Responsibility on *the* company's value.

The seventh study was conducted by Malihe Rostami (2015). This study discusses how to evaluate performance and consider some important financial ratios and discover strengths and weaknesses. "CAMELS" model. The purpose of this study is to calculate and evaluate the performance of banks and financial institutions, and also to find a relationship between the performance of banks and each cluster of CAMELS ratios. Cross correlation to determine camels relative indicators for banks. Capital Adequacy, Asset quality, Health Management, Earnings and Profitability, and Liquidity and Sensitivity are the focal points of this ranking. In this study the effects of each camels category were studied on performance. Tobin's Q ratio is included as a performance indicator. And also the data used in this study was collected from the annual financial statements of an Iranian bank and ultimately, the model was extracted from the analysis. With the CAMELS study, banks can focus on risk and some important ratios and try to manage and control some possible crises. This research period was from 2005 to 2014. The results showed a link between camels category and Tobin's Q ratio at the bank. Indicates that Prob (F-statistics) is less than 0.05, so, this model is accepted and there is a logical relationship between dependent and independent variables and also, all significant coefficients.

The eighth study was conducted by (Eddy.W and Josephine Park, 2020). This research was conducted in the banking sector listed in the Sri Kehati index 2012-2017. This research aims to find out the performance of the bank sector. Analysis using CAMELS ratio. The data is obtained from the annual report issued by the banking sector listed in the Sri Kehati index and then processed using Eviews 8.Analysis is done partially or simultaneously. From the results of data processing, it was obtained that simultaneously camels ratio has a value that greatly affects the company's value as measured by Price to Book Value (PBV) of 87.43%, while the remaining 22.57% is another factor. not checked. In part, only three ratios affect the Company's Value, namely Capital 1.93%, Assets 58.06%, and Liquidity 67.57%, while the other ratios, namely Non Performing Loan Management (NPL) and Return on Assets (ROA), and Operating Expenses to Operating Income (OEOI) have no effect on the Value Company. During this research period, the banking sector

improved its performance in relation to NPL and its revenues, therefore, the negative influence on the company's value occurred. It is expected that all ratios in CAMELS will have a positive effect and the following year will be better.

The ninth research was conducted by Sampurna and Romawati (2019). This study aims to test the determinant of company value of manufacturing companies listed on the Indonesia Stock Exchange (IDX) over a five-year period. Factors are institutional ownership, company size, profitability, leverage, and established investment opportunities. The sample was determined based on panel data, with a total sample of 84 manufacturing companies, so that as many as 420 observations were obtained during the research period. Data analysis method using regression panel data. The results showed that size, return of assets, and market value to book value had a significant positive influence on the company's value. The results also showed that debt to total assets negatively affects the value of the company. However, institutional ownership has an insignificant negative value to the company's value. The main value of this study is the identification of factors that affect the value of manufacturing companies registered in Indonesia.

2.2. Theoretical basis

2.2.1. Teori Sinyal (*Signalling Theory*)

According to Noor (2015), Signal Theory is a theory that explains how to give corporate signals to interested parties with such information, The required information is presented in the financial statements made by the company every year. This signal is in the form of information about what has beendone by the company to realize the wishes of the owner, the company that has good prospects will try to avoid the sale of the company's shares and seek the acquisition of new capital in other ways, and if the prospect is less profitable, it will tend to sell its shares (Brigham and Hauston 2019: 32). Company information is information that affects investors, because the company information can provide an overview of the current and future state of the company. (Jama'an in Syria 2015:30). *Signalling theory is* required by managers and investors as users of financial statements that can cause investors to have difficulty to observe the company's prospects and performance thoroughly. *Signalling theory emphasizes* the perspective of information provided by the company's internal parties to investors to assist in investor decision making (Yuliawan and Wirasedana, 2016). The announcement containing positive value, it is expected that the market will react when the announcement is received by the market (Choriliyah *et.at.*,2016). *Signalling theory states* that a good quality company will deliberately signal to the market, thus the market is expected to distinguish between good quality and poor quality companies (Mortono *et,at.*, 2015).

2.2.2. Company Value

According to Irham Fahmi (2015:82) the company's value is a market value ratio that describes the conditions that occur in the market. This ratio is able to provide understanding for the management of the company to the conditions of implementation to be implemented and its impact in the future.

Septiyuliana (2016) explained that the value of the company is often associated with the share price. The higher the share price, the higher the company's value, that by maximizing the value of the company means also maximizing the prosperity of shareholders who are the company's goal. Investors can use the company's value as the basis for assessing the company's future performance (Wijaya and Panji, 2015).

One indicator that affects the value of the company is the extent to which the company is able to make a profit, in line with the investor's goal to invest, namely to make a profit (Meidiawati and Mildawati, 2016). In addition, nilai company is very important because it reflects how much the company can provide profit for the company, especially owners and investors (Sunardi, 2019) To be able to maximize the value of the company, the company or manager is faced with financial

decisions that include investment decisions, funding decisions and financial processing decisions and profit sharing ofdividends from the company's profit or profit results (Sunardi N, 2018).

$$PBV = \frac{\text{Harga Pasar Per Lembar Saham}}{\text{Nilai Buku Per Lembar Saham}}$$

2.2.3. *Capital AdequacyRatio* (CAR)

According to the Indonesian Bankers Association, (2016:161) CAR is a measurement used to assess capital. *Capital Adequacy Ratio* (CAR) shows the adequacy ofcapital determined by regulatory agencies that specifically apply to industries under government supervision such as banking, banks can use financial ratios to evaluate theadequacy of bank capital and other financial performance(Harahap, 2015:52). In accordance with the regulation of the Financial Services Authority, the minimum capital that must be owned by a bank is 8%. Research conducted by Sari (2017) stated that CAR has a positive effect on the company's value. The research was also supported byHalimah and Julianty's research (2018), stating the positive influence *between Capital Adequacy Ratio* (CAR) and Price to Book *Value.*

According to Bank Indonesia Circular Letter No. 6/23/DPNP dated May 31, 2004 CAR can be formulated as follows:

$$CAR = \frac{\text{(Moda Inti + Modal Pelengkap)}}{\text{Aktifa Tertimbang Menurut Resiko}} \text{x100\%}$$

2.2.4. Return On Risk Assets (RORA)

*(Return On Risk Assets)*is a ratio that compares between operating income and the amount of risk assets (total *loans and invesments)*owned. RORA measures the bank's ability in its efforts to optimize the investment of its assets to earn profit. According to Bank Indonesia regulations, the healthy RORA value is above 7.85%. According to Arman and Herawati (2011), assessment of the quality of productive activities is usually assessed with RORA.
RORA can be formulated as follows: (Tamboto, 2015).

$$RORA = \frac{Oprating\ Income}{\text{Total Loans + Invesment}} \text{x100\%}$$

2.2.5. *Net profit margin* (NPM)

Net profit margin (NPM) is a ratio used to measure the percentage of net income on net sales. This ratio is calculated by dividing net income against net sales (Hery 2015:235). *Net Profit Margin reflects* the company's ability to generate net profit from each of its sales (Murhadi, 2015:64). Research conducted by Tikawati (2016) stated that the profitability of companies that are proxies *with Net Profit Margin* (NPM) has a positive and significant effect on the company's value. Based on Bank Indonesia regulation, a good NPM is greater than 5%.

Research conducted by Denziana and Monica (2016), shows that profitability seen from NPM indicators has a positive and significant effect on the company's value. The increasing ratio indicates that management's performance improves in effectively managing operational financing funds to generate net profit (increased profitability). According to Murhadi (2015:64) NPM can be formulated as follows:

$$NPM = \frac{\text{Laba Bersih}}{\text{total sales}} \text{x}100\%$$

2.2.6. Non Performing Loan (NPL)

According to Nursyahriana, et al.,(2017) Non Performing Loan is a loan that has difficulty paying off due to intentional factors and or because external factors outside the debtor's control ability and credit since maturity cannot be repaid by the debtor as it should be in accordance with the agreement. Bad credit is a financial ratio related to credit risk. According to (Suranto.,et.al, 2017) Non Perfoming Loan can be formulated as follows:

$$NPL = \frac{(\text{Jumlah Kredit Bermasalah})}{\text{Total Kredit}} \text{x}100\%$$

2.2.7. Operating Expenses or Operating Income (BOPO)

Operating Expenses or Operating Income (BOPO) is an efficiency ratio because it measures the bank's management ability to control operating costs to operating income (Ekanayake and Azeez, 2015). Bopo value comes from the comparison between total operating costs and total operating income (Taswan, 2013: 159). The smaller this ratio means the more efficient the operational costs incurred by the bank in question so that the chances of a bank in a problematic condition are smaller (Ari and Laksono, 2017). The bank's success is based on quantitative assessment of bank rentability can be measured using the ratio of operational costs to operating income, Bank Indonesia determines the best figure for BOPO ratio is below 90%, because if the BOPO ratio exceeds 90% to close to 100% then the bank can be categorized as inefficient in carrying out its operations. (Susilowati, et.al,2019). According to (Maulana., et.al, 2015) Operating Costs or Operating Income can be formulated as follows:

$$\text{BOPO} = \frac{\text{Beban Operasional}}{\text{Pendapatan Operasional}} \text{ x } 100\%$$

2.3. Hypothesis Development

1. There is an influence of Capital Adequancy Ratio (CAR) on the value of the company
2. There is an effect of Return Of Risk Asset (RORA) on the value of the company
3. There is an influence of Net Profit Margin (NPM) on the company's value of
4. There is an influence of Non Performing Loan (NPL) on the company value of
5. There is an effect of Operational Costs or Operating Income (BOPO) on the company's value.
6. There is an influence of CAR, RORA, NPM, NPL, and BOPO on the company's value

III. RESEARCH METHODS

Stategi Research used is associative to know the influence between variables. The approach used in this research uses a quantitative approach, because in this study use the figures in the financial statements as data. Quantitative research is a research method based on the philosophy of positivism, used to research on certain populations or samples, data collection using research instruments, data analysis is quantitative / statistical, with the aim to test the hypothesis that has been determined (Sugiyono, 2017: 8). Dan use *Eviews 10*

IV. RESULTS AND DISCUSSION

4.1. Descriptive Statistical Analysis

This descriptive statistic aims, among others, to show the *average value (mean), the highest value (maximum),*the *lowest value (minimum)* and the *standard deviation (standard deviation)* for each variable. This study used 17 companies in a 5-year observation period starting in 2015 to 2019, so that 85 observation data were obtained. The following is the result of descriptive statistics presented in the table. 4.1.

Tabel 4.1. Statistik Deskriptif

	PBV	CAR	RORA	NPM	NPL	BOPO
Mean	1.331412	0.224588	0.102706	0.302941	0.021882	0.676706
Median	0.990000	0.210000	0.100000	0.280000	0.020000	0.660000
Maximum	4.740000	0.660000	0.190000	1.150000	0.060000	1.090000
Minimum	0.070000	0.100000	0.040000	0.020000	0.000000	0.350000
Std. Dev	1.044327	0.079501	0.040894	0.203861	0.013228	0.158935
Obs	85	85	85	85	85	85

Source : Data processing results, 2020

Based on table 4.1, shows that price to book value (PBV) within 5 (five) years of research with the highest value is 4.7400 times *owned* by Bank Central Asia Tbk in 2019. The lowest value of the company was 0.0700 times owned by Bank Maybank Indonesia Tbk and Bank OCBC NISP Tbk in 2019. The standard deviation value of the company is 1,044 times with an average company value of 1,331 times. This means that the value of banking companies from 2015-2019 amounted to 1,331 times the company's value the previous year.

Based on table 4.1, shows that *the highest Capital Adeuancy Ratio* (CAR) value of 0.660 obtained from Bank Ina Perdana Tbk in 2017 and the lowest value of 0.1000 owned by Bank Bukopin Tbk in 2018. With a standard deviation of 0.079501 indicates *fluctuations in return,* and an average value of 0.224588 indicates that the average capital adequacy of each bank has been efficient every year. Thus, the average value is greater than the standard value of deviation indicates that the ability of some banks in financing from the capital owned by the company is good.

Based on table 4.1, it *shows that the highest Return On Risked Asset* (RORA) value of 0.190000 obtained from Bank Danamon Indonesia Tbk in 2015. While *the lowest Return On Risked Asset* (RORA) of 0.040000 was owned by Bank Bukopin Tbk and Bank Rakyat Indonesia Agroniaga in 2019. The standard deviation of 0.040894 indicates *fluctuations in return,* and an average value of 0.102706. The average value greater than the standard value of deviation indicates the average ability of banks in their efforts to optimize the investment of assets owned to earn profit is good.

Based on table 4.1, shows that the *highest Net Profit Margin* (NPM) value of NPM is 1.150000 obtained from Bank Mandiri (Persero) Tbk in 2015. *while the Net Profit Margin* (NPM) with the lowest value of 0.020000 is owned by Bank Bukopin Tbk in 2017. The standard deviation value of 0.203861 indicates fluctuations in *the* return. With an average *Net Profit Margin* NPM of 0.302941 shows the average level of profit generated from the income of each bank is quite high. Thus, the average value is greater than the standard deviation value which indicates that the ability of some banks to be a good sample in profit from income.

Based on table 4.1, shows that the *highest Non Performing Loan* (NPL) value of 0.060000 obtained from Bank Bukopin Tbk in 2017, and the lowest value of 0.000000 owned by Bank BTPN

Tbk in 2015. With a standard deviation of 0.013228, and an average NPL value of 0.021882. So the average value is greater than the standard deviation value indicates that the bank that is the sample has an average value (NPL) under bi provisions of 5%.

Based on table 4.1, shows that the highest operating expense and operating income (BOPO) value was 1.090000 owned by Bank Maybank Indonesia Tbk in 2015. The lowest value is 0.350000 owned by Bank Negara Indonesia (Persero) in 2018. With a standard deviation value of 0.158935 which indicates the fluctuation of *the return*, and the average value of the use of each company's cost is 0.676706. Thus, the average value greater than the standard deviation value indicates good data variables and indicates the bank is able to control its operating costs.

4.2. Model Specifications

There are three models of data regression panel *including Common effect Model* (CEM),*Fixed Effect Model* (FEM) and Random *Effect Model* (REM).

***Common effect Model* (CEM)**

The method used to combine *time series and* cross section data *with* the approach used is ordinary least *square* (OLS) method as estimation technique. The following is a table of Common Effect *Model* (CEM) results. The results of this model calculation can be seen in the following table:

Tabel 4.2. *Common Effect Model* (CEM)

Variabel	Coefficient	t-Statistic	Prob.
C	1.153492	1.748819	0.0842
CAR	3.529730	2.852447	0.0055
RORA	0.630199	0.252115	0.8016
NPM	1.791012	2.985221	0.0038
NPL	-24.44306	-2.477610	0.0154
BOPO	-0.639223	-0.939480	0.3503

Source : Data processing results, 2020

***Fixed Effect Model* (FEM)**

Fixed Effect Model assumes different interceptions between*individuals* (cross *section*) but has a constant *slope* regression (fixed) between time (*time series).* To estimate panel data fixed effect *model model using* least square *dummy variable* (LSDV) technique. Here are the results of *the Fixed Effect Model* (FEM).

Tabel 4.3. *Fixed Effect Model* (FEM)

Variabel	Coefficient	t-Statistic	Prob.
C	0.165397	0.499397	0.6192
CAR	-0.105159	-0.219446	0.8270
RORA	3.092979	1.028868	0.3075
NPM	1.472281	3.525344	0.0008
NPL	0.569064	0.138437	0.8903
BOPO	0.968656	2.986541	0.0040

Source : Data processing results, 2020

***Random Effect Model* (REM)**

In estimating random *effect* model (REM) can be by using *Generalize Least Square* (GLS) method. Here are the results of the Random Effect *Model* (REM).

Tabel 4.4. *Random Effect Model* (REM)

Variabel	Coefficient	t -Statistic	Prob.
C	2.256709	3.642598	0.0003
CAR	3.025974	4.054753	0.0005
RORA	2.807494	2.047882	0.0079
NPM	1.556516	3.944033	0.0002
NPL	-0.633023	-0.156555	0.8760
BOPO	-0.844914	-2.696703	0.0086

Source : Data processing results, 2020

4.2. Estimasi Model Regresi Data Panel

4.2.1. Uji *Chow*

Tabel 4.5. Uji *Chow*

Effects Test	Statistic	d.f.	Prob.
Cross-section F	109.713564	(16,63)	0.0000
Cross-section Chi-square	285.819887	16	0.0000

Source : Data processing results, 2020

When viewed from chow test *results* in table 4.5, shows *that cross section* F is 0.0000 < significant value is 0.05 then H o is rejected. Thus the most appropriate model used in this study is the *Fixes Effect Model* (FEM).

Uji *Hausman*

Tabel 4.6. Uji *Hausman*

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	5.160175	5	0.3966

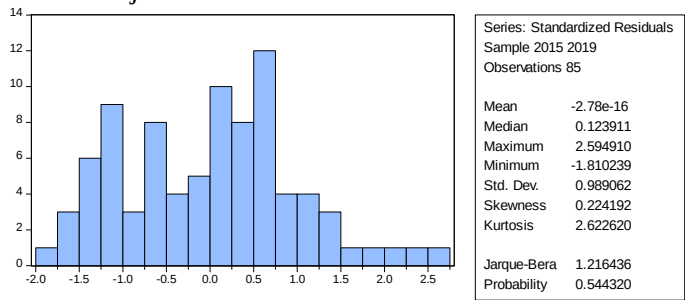
Source : Data processing results, 2020

Judging from table 4.6, hausman test *shows cross-section random result* obtained by 0.3966 > significant value 0.05, then H_0 received. Thus the most appropriate model used in this thesis is the random *effect model* (REM).

4.3. Uji Asumsi Klasik

4.3.1. Normalitas Test

Gambar 4.1. Uji Normalitas



Source : Data processing results, 2020

Based on figure 4.1, the above shows the results of a normality test with a probability value of *Jarque-Bera* of 0.544320 > 0.05, so it can be said that the result of normal distributed data.

4.3.2. Multikolinieritas Test

Tabel 4.7. Uji Multikoliniearitas

	CAR	RORA	NPM	NPL	BOPO
CAR	1.000000	0.090041	0.040916	-0.007364	0.116189
RORA	0.090041	1.000000	0.038463	-0.150887	-0.229921
NPM	0.040916	0.038463	1.000000	-0.462786	-0.049125
NPL	-0.007364	-0.150887	-0.462786	1.000000	0.302768
BOPO	0.116189	-0.229921	-0.049125	0.302768	1.000000

Source : Data processing results, 2020

Based on table 4.7, multi-covaririty test shows that the correlation value of all independent *variables namely Capital Adeuancy Ratio* (CAR), *Return* On Risk *Asset* (RORA), *Net profit margin* (NPM), *Non Performing Loan* (NPL), and Operational Cost or Operating Income (BOPO) < 0.80. Therefore, it can be concluded that there is no problem of multicoliniearity between free variables in the regression model or all variables pass in the multicoliniearity test.

4.3.3. Heteroskedastisitas Test

Tabel 4.8. Uji Heteroskedastisitas

Variabel	Prob
C	0.1259
CAR	0.5138
RORA	0.1436

NPM	0.2410
NPL	0.8893
BOPO	0.1675

Source : Data processing results, 2020

Based on table 4.8, *it shows the Capital Adeuancy Ratio* (CAR) has a probability value of 0.5138 > 0.05, for *Return On Risk Asset* (RORA) has a probability of 0.1436 > 0.05, *Net profit margin* (NPM) has a probaltity value of 0.2410 > 0.05, *Non Perfoming Loan* (NPL) has a probability value of 0.8893 > 0.05, and Operating Costs or Operating Income (BOPO) has a probability value of 0.1675 > 0.05. So each independent variable > 0.05 so that it can be concluded $H_{0\ rejected}$ then, indicating that this study does not have a problem of heteroskedastisity.

4.3.4. Autokorelasi Test

Tabel 4.9. Uji Autokorelasi

Durbin-Watson	**Hasil**
1.936035	Tidak terjadi autokorelasi

Based on table 4.9, showing that k = 5 (independent variable); n = 85 observation data; *du* = 1.7736 *and dl* = 1.5254 with calculation du < *d* < *4-du* then obtained results 1.7736 < 1.936035 < 4-(1.7736), 1.7736 < 1.936035 < 2.2264. so that the conclusion does not occur autocorrelation problem.

4.4. Analisis Regresi Data Panel

Tabel 4.10. Analisis Regresi Data Panel dengan *Random Effect Model* (REM)

Variabel	**Coefficient**	**t -Statistic**	**Prob.**
C	2.256709	3.642598	0.0003
CAR	3.025974	4.054753	0.0005
RORA	2.807494	2.047882	0.0079
NPM	1.556516	3.944033	0.0002
NPL	-0.633023	-0.156555	0.8760
BOPO	-0.844914	-2.696703	0.0086

Source : Data processing results, 2020

$$\text{PBV}_{it} = 2.256709 + 3.025974\ \text{CAR}_{it} + 2.807494\ \text{RORA}_{it} + 1.556516\ \text{NPM}_{it} - 0.633023\ \text{NPM}_{\text{it}} - 0.844914\ \text{BOPO}_{\text{it}} + 0$$

Based on the model of regression equation in table 4.10 so that it can be explained as follows:

1. *Capital Adeuancy Ratio* (CAR) regression coefficient of 3.025974 means that if the Capital *Adeuancy Ratio* (CAR) increases by 1% then the company's value will also increase by 3.025974 assuming other independent variables remain. A positively marked coefficient means a one-way relationship between *the Capital Adeuancy Ratio and* the value of the company, meaning that the higher the Capital *Adeuancy Ratio,* the higher the value of the company.
2. Coefficient *Return On Risk Asset* (RORA) of 2.807494 means that *if return* on risk *asset* (RORA) increases by 1% then the company's value will increase also by 2.807494 assuming other independent variables remain. A positively marked coefficient means a one-way

relationship between *Return On Risk Asset* and the value of the company, meaning that the more tinngi *Return On Risk Asset*, the higher the value of the company.

3 . Net Profit Margin (NPM) *coefficient* of 1.556516 means that if Net Profit *Margin* (NPM) increases by 1% then the company's value will increase by 1.556516 assuming other independent variables remain. A positively marked coefficient means a one-way relationship between *Net Profit Margin and* the company's value, meaning that the more tinngi Net Profit *Margin*, the higher the company's value.

4. *Non-Performing Loan* (NPL) coefficient of -0.633023 means that if Non Performing *Loan* (NPL) increases by 1% then the company's value will decrease by -0.633023 assuming other independent variables remain. Coefficient marked negative means the opposite relationship between Non Performing Loan and *company* value, meaning that the more tinngi *Non Performing Loan, the* lower the value of the company.

5. Profitability regression coefficient measured by Operating Expenses or Operating Income (BOPO) of -0.844914 means that if operating expenses or operating income (BOPO) increase by 1% then the company's value will decrease by -0.844914 assuming other independent variables remain. A coefficient marked negatively means that the relationship is in the opposite direction between Operating Costs or Operating Income and the company's value, meaning that the higher the Operational Cost or Operating Income, the lower the value of the company.

4.5. Uji Hipotesis

4.5.1. Parsial Test (t Test)

T test is conducted on hypothesis to determine the significance of the influence of each independent variable *namely Capital Adquancy Ratio, Return On Risk Assets, Net Profit Margin, Non Performing Loan,*and operational costs or operating income affect individually on dependent variables of the Company's value. Testing uses significant values (α) 0.05 or a 95% confidence level.

Tabel 4.11. Uji Parsial t

Variabel	Coefficient	t-Statistic	Prob.
C	2.256709	3.642598	0.0003
CAR	3.025974	4.054753	0.0005
RORA	2.807494	2.047882	0.0079
NPM	1.556516	3.944033	0.0002
NPL	-0.633023	-0.156555	0.8760
BOPO	-0.844914	-2.696703	0.0086

Source : Data processing results, 2020

Based on the results of the regression panel data in table 4.11 above, it can be concluded that:

1. The determinant coefficient of the CAR variable is 3.025974 with a positive sign, while the t-statistic is 4.054753 > 1.96 and the probability is 0.0005 < 0.05. So in conclusion CAR has a positive and significant effect on the value of the company, then H_o accepted and $H_{1\ \text{rejected.}}$
2. Coefficient of determination of RORA variable is 2.807494 with positive sign, while t-statistic is 2.047882 > 1.96 and probability is 0.0079 < 0.05. So the conclusion RORA has a positive and significant effect on the value of the company, then H_o accepted and $H_{1\ \text{rejected.}}$
3. The coefficient of determination of the NPM variable is 1.556516 with a positive sign, while the t-statistic is 3.944033 > 1.96 and the probability is 0.0002 < 0.05. So the conclusion NPM has a positive and significant effect on the value of the company, then H_o accepted and $H_{1\ \text{rejected.}}$
4. Coefficient of determination of NPL variable is -0.633023 with negative sign while t-statistic is -0.156555 < 1.96 and probability is 0.8760 > 0.05. So the conclusion NPL negatively and insignificant effect on the value of the company, then H_o rejected and H_1 received

5. The determinant coefficient of the BOPO variable is -0.844914 with a negative sign while the t-statistic is -2.696703 < 1.96 and the probability is 0.0086 < 0.05. So the conclusion BOPO negatively and significantly affect the value of the company, then $H_{o\ accepted}$ and $H_{1\ rejected.}$

4.5.1. Simultan Test (F Test)

Simultaneous test (F test) aims to determine whether or not there is a simultaneous influence between free variables against bound variables. That influence has a significant rate below 5%. The following simultaneous test results (f test) can be seen in the table.

Tabel 4.12. Uji Simultan F

F-statistic	18.70177
Prob(F-statistic)	0.000000

Source : Data processing results, 2020

Based on table 4.12 the results show that the probability value of 0.00000 < 0.05,it shows that independent variables (Capital*Adeuancy Ratio, Return* On Risk *Asset, Non Perfoming Loan,* Net Profit *Margin, and Operating* Costs or Operating Income)simultaneously affect dependent variables (PBV) then $H_{0\ is}$ received and $H_{1\ is\ rejected.}$

4.5.2. Koefisien determinasion Test (R^2)

The determination coefficient test $(R^2)^2$extent of themodel's ability to influence dependent variables. Regression in this study used five indepeden variables and one dependent variable, therefore this study *used Adjusted R-square value in* the determination coefficient test.

Tabel 4.13. Hasil *R-square*

R-square	***Adjusted R-square***
0.542052	0.513068

Source : Data processing results, 2020

Based on table 4.13 shows *adjusted R-square results of* 0.513068 which means that the variation in the company's value can be explained by 51.3068% by the variation of Capital *Adeuancy Ratio, Return* On Risk *Asset, Non Perfoming Loan,* Net *Profit Margin,* and *Operating* Costs or Operating Income at the level of 5% and the remaining 48.6932% can be explained by other independent variations that were not researched in this study.

V. CONCLUSIONS AND SUGGESTIONS

5.1. CONCLUSION

Based on the results of the calculation research that analyzes the influence of CAR, RORA, NPM, NPL, AND BOPO in pbv in banks listed on the Indonesia Stock Exchange in the period 2015-2019, it can be concluded as follows:

1. CAR proved to have a positive and significant effect on price book *value.* CAR is a ratio calculated using capital and then dividing it by weighted assets according to risk. When the bank has good capital adequacy it will have an impact with the increase *in price book value*
2. RORA proved to have a positive and significant effect on *price book value.* RORA is the position of the bank has the ability of its assets to earn profit. So when RORA rises, *the price book value* also increases.

3. NPM proved to have a positive and significant effect on *price book value.* This ratio is a comparison *between net profit* and then dividing it with net *sales.* When the bank's *income increases profit* from the bank will also rise, it will also have an impact with the increase in price book *value.*
4. NPL proved to have a negative and insignificant effect on the price book *value.* NPL is calculated using the amount of non-performing loans and then dividing them by the total credit. When the amount of non-performing loans increases, the value of the company falls, but insignificantly its influence on the value of the company indicates that investors respond to the NPLs in the company but are not seen as the first reference in looking at the value of the company calculated with a price book value.
5. BOPO proved to have a negative and significant effect on *price book value.* BOPO is calculated by comparing operating expenses with operating income. When operating expenses increase and operating income decreases it will cause a decrease in the value of the company. Then BOPO can affect the company's value as measured by *the price book value.*
6. *Capital Adeuancy Ratio,*Return On *Risked Asset, Net Profit Margin, Non Performing Loan,*and operating expenses or operating income simultaneously affect the company's value. Therefore, sub-banking sub-sector companies must pay attention to capital adequacy, investment of assets, profit, bad credit and operational costs to increase the value of the company as measured *by price book value.*

1.2. Suggestions

Based on the research results of suggestions that can be submitted in this research are:

1. For Investors and Prospective Investors

   Based on the results of the analysis above is expected to be a consideration for investors and prospective investors, especially institutional investors because institusonal investors have extensive knowledge and invest in large sources of funds, can strike a better or lower cost to invest. Institutional investors should consider CAR, RORA, NPM, NPL, and BOPO as indicators of good corporate value due to long-term investment. Investors should also be more careful in making investment decisions and in entrusting their funds.
2. For the Company

   To maximize the company's value, the company should consider the factors that influence it, *namely, Capital Adeuancy Ratio* (CAR), *Return On Risked Asset* (RORA), Net Profit *Margin* (NPM), Non *Performing Loan* (NPL), and operating expenses or operating income (BOPO). Banks must pay attention to management, capital, non-performing loans, and must control the costs incurred to make operational costs smaller. Management's ability to carry out its operational activities by minimizing the company's expenses and maximizing the company's profit and improving its performance efficiency so as to gain investor confidence and increase the value of the company. The capital of banking companies in fulfilling the risk of any existing activities also affects the value of the company.

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