



EFFECT ANALYSIS OF CAR, BOPO, LDR, LEVERAGE, NPL AND COMPANY SIZE ON FINANCIAL PERFORMANCE WITH INTELLECTUAL CAPITAL AS A VARIABLE MODERATING IN BANKING COMPANIES LISTED ON STOCK EXCHANGE INDONESIA

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ABSTRACT

Research objectives this is analyze CAR influence , BOPO, LDR, Leverage , NPL and size company t against k performance k finance p exists p company banking on the Indonesian Stock Exchange by simultaneous and partial . Study it also analyzes influence of Intellectual Capital in moderate connection Among CAR, BOPO, LDR, Leverage , NPL and size company with k performance k finance p exists p company banking on the Indonesian Stock Exchange. Population in study this is whole company banking listed on the Indonesia Stock Exchange for 2010-2014 period , namely as many as 41 banks. retrieval technique sample used _ in study this is method purposive sampling, so that obtained 26 banks that became sample study with total observation as many as 130 data. The data analysis method used in study this is an analytical model multiple linear regression and residual test . Data used is secondary data in the form of report finance banks listed on the IDX for period 2010-2014. Test results hypothesis show that by simultaneous CAR, BOPO, LDR, Leverage , NPL and size company influential significant to performance finance banking (ROA) will but by Partial NPL and influential CAR no significant to performance finance (ROA). Study it also shows there is influence intellectual capital moderation however result no significant.

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1. Introduction

According to Ali [1] bank is defined as: as institution finance in accept entrusted funds placement public to the bank , give loan community , publish letter debt as well as publish check . Influence crisis monetary in Indonesia in the middle 1997 brought _ big impact on the sector banking . With downfall sector banking consequence crisis the force government go through action in the form of liquidation some of the rated banks no healthy for Keep going operate . To restore public confidence, so that the bank's intermediation function can run well, the bank must show good performance as reflected in the bank's financial statements.

[2], financial performance is an analysis carried out to see how far the company has carried out and analyzed its financial condition properly and correctly so that it can be seen whether the company's financial condition is good or bad which reflects work performance in a certain period. [3], performance finance loaded banking _ through ratio finance grouped to in ratio liquidity (LDR), ratio solvency (CAR and Leverage), efficiency operations (BOPO) as well as size company that is all that is originated from internal factors . According to [4], ROA was chosen because it ROA as tool measuring efficient with utilise assets owned _ for where to make profit asset in banking more important because part big source of bank funds comes from public funds . [5], if ROA the more big then return will be the more also large so that the bank's profit will the more increase .



According to [6], Bank Indonesia makes determination minimum CAR ratio of 8% if not enough of 8% then the bank will worn sanctions . According to [4] , banks with more capital big relatively more safe compared to banks with more capital low . [4]BOPO used as tool measuring with compare cost operational to income bank operations . According to Bank Indonesia 's stipulation is the amount efficient BOPO ratio no exceeds 90%. Other factors that can influence performance banking could seen from ratio level known liquidity _ with LDR (Loan to Deposit Ratio) .

Banks that have more total assets big have opportunity for channel the credit to party borrower in more quantity _ so big _ expected will get high profits [7]Bank Indonesia stipulates big LDR ratio is 110%. [8] Size company in study this seen from the total assets owned . [9] the more big total assets so will the more a lot of capital used for distribution credit and sales so that the return of funds will be the more big too _ market capitalization will the more large which has an impact on the the public is familiar with the bank . inner bank operate operational no enough only rely on total assets just will but need funds for more financing _ big through loan or known as leverage . [10] to what extent use of creditor funds the used for produce performance where the more big leverage so will the more there is a big risk even banks can caught liquidation if no could return the funds . According to [1] , risk credit is risk from possibility happening bank loss as consequence from no paid off return creditor to debtor . NPL is ratio between total credits problem with the total credit given to debtor . Bank said have a high NPL if total problem credit _ more big than total credit given _ to debtor . According to [11] performance finance is shape size success or success company in operate operational for reach profit . According to [12] the analysis of performance bank finance is very useful for know how much success company To do management finance especially capital adequacy , condition liquidity and profit achieved _ in year walk nor year previously as well as for know bank capability in utilise all assets owned _ so that expected profit achieved more maximum .

According to [13], ROA in banking calculated from profit before tax to the total assets owned company. The results of the calculation of the financial statements that are downloaded through www.idx.co.id regarding the financial performance of banks, the profit referred to in ROA is income before tax (income before tax) to total assets. So in general ROA can be formulated as follows;

$$ROA = \frac{\text{Profit before Tax}}{\text{Total Assets}} \quad (1)$$

According to [14] , capital is one of the variable used _ as base measurement reflected bank performance in component CAMEL (Capital, Assets, Management, Earnings, Liquidity). According to [13] if mark CAR the more tall so could said will the more good bank in fund activity expected operational _ could give enough contribution _ big for profitability , means the more tall CAR then the bank will more liquid. According to [15], the Indonesian bank stipulates that number ratio CAR refers to the standard determination Bank for International Settlements (BIS) which is a minimum of 8%. From explanation on so by general ratio CAR could formulated as following;

$$CAR = \frac{\text{Bank Capital}}{\text{ATMR}} \quad (2)$$

According to [16], BOPO is a ratio or ratio between total costs operational with total income operational. The more small ratio this means the more efficient cost operations issued by the bank concerned so that possibility a bank in condition problem the more small . If the more efficient bank doing tasks operational so will the more good the bank 's performance. According to [17], BOPO is ratio cost operational to income operational so that formulated as following;

$$BOPO = \frac{\text{Total Operational Cost}}{\text{Total Income Operasional}} \quad (3)$$

[18] defines LDR as ratio for measure composition total credit given _ compared with amount of funds from community and own capital used . [3], LDR is a ratio whole total credit given by the bank to the funds received by the bank. When the LDR increases tall so bank profit is getting increase (with the bank 's assumptions capable channel the credit with effective) so that bank performance will increase . The formula is as following;

$$LDR = \frac{\text{Total Credit}}{\text{Total funds From Other and own capital used}} \quad (4)$$

According to [16] the ratio *leverage* is to what extent asset company financed by debt compared with own capital . With source of capital funds originating from debt so interest paid _ can used for reduce income

charged _ tax (in nature) *tax deductible*) so that could increase company profits . According to [19], for see how much big *leverage* used _ company could be measured through ratio formulated as following;

$$Leverage = \frac{Total\ Debt}{Total\ Assets} \tag{5}$$

According to [20], the use of public funds used bank assets for financing distribution credit normally range between 70-80%.

According to [10], size company is total assets and sales through analysis " common size ". The more big assets so will the more big _ assets used _ as capital for sales and more great turnover _ expected assets _ for get income will the more big . According to [9] , the variable total assets proxied in natural logarithm (Ln) of total assets that itself , because each bank has total assets with mark different differences , so that cause extreme value . Formula the formula is as following:

$$Size = LnTotal\ Assets \tag{6}$$

NPL is percentage total credit problematic (with criteria not enough current , doubtful , and loss) to the total credit issued by the bank. NPL expected have connection negative with offer credit.

According to [21], traffic jam facility credit caused by two factor namely;

1. From side banking

In terms of this party analyst credit not enough careful good in check truth and authenticity document nor wrong in count existing ratios . _ As a result , what should be occur no predictable before .

2. From side customer

Congestion credit caused _ customer caused by 2 things that is existence element intentional and unintentional so that implications for the NPL. According to [22], regulations about quality asset banking where NPL formulated as following;

$$NPL = \frac{Enough\ Current,\ Doubtful,\ loss}{Total\ credit} \tag{7}$$

According [23], intellectual capital generally identified as difference Among market value . Following definition Sourced IC _ from results study empirical world is as following [24];

1. Intellectual capital character elusive however when done exploitation capable provide source base new for could competitive and competitive .
2. IC is mix assets no form from the market, wealth intellectual property , infrastructure and center man so that company could walk in accordance with function .
3. Defines IC is skills , information , properties and experience used to create _ powerful wealth _ use .
4. Define IC as mark hidden or hidden values or no seen by common and not seen in report finance .
5. Define IC as assets based on knowledge and core business competencies that can be influence strength and excellence compete .
6. IC is an intangible asset with ability give mark to company and society in the form of goodwill, patents , right create right on riches intellectual and franchise .
7. IC is creation mark efficiency of intellectual capital that alone through mark add (value creation) with method Value Added Intellectual Capital (VAIC TM).

1.1 Measurement of Intellectual Capital via VAIC TM

Referring to back to research [23] explains that IC elements are as following;

Physical Capital

According to [25], Physical Capital is whole asset form as cash, marketable securities, accounts receivable, inventories, land , ,machinery , equipment, furniture, fixtures, and vehicles owned company.

Calculation formulasis ;

$$VACA = \frac{VA}{CE} \tag{8}$$

Human Capital

According to [23] , Human Capital includes knowledge the resulting individual through competence , attitude and intelligence intellectual . Treatment Human Capital related with salary , training , opportunity level career and so on . How to measure known as “ value added human capital ” or more with term VAHU.

Calculation formula are;

$$VAHU = \frac{VA}{HC} \tag{9}$$

Structural Capital (SC)



[26], Structural Capital is knowledge possessed _ company in respond market needs and challenges in the form of technologies , methodologies and processes. Measurement done with see big ratio SC required _ for earn IDR 1 from VA , more known with " structural capital value added " or abbreviated with STVA. Calculation formula are:

$$STVA = \frac{SC}{VA} \quad (10)$$

where

$$SC = VA - HC \quad (11)$$

The formula is as following:

$$VAIC TM = VACA + VAHU + STVA \quad (12)$$

Where;

VACA = Value Added from Capital Employee (Physical Capital used)

VAHU= Added Value from Human Capital

STVA = Value Added from Structural Capital

[27] Capital Employee same with Open value from Net Assets , i.e. difference between Total Assets with Total Liability .

2. Research Methods

2.1 Research Type

The type of research used in the research this is causal the comparative aim analyze influence variable independent to variable dependent . Causal design useful for analyze connection or influence Among one variable with variable other. Variable independent in study this are CAR , BOPO , LDR , leverage , firm size , NPL, moderating variable is intellectual capital as well as Variable Dependent is Financial Performance.

2.2 Research Location and Time

Research location this is done by the company banks listed on the Indonesia Stock Exchange (IDX), in the period observation years 2010-2014. Research time planned from January 2015 to with July 2015.

2.3 Population and Research Sample

The research population is all banking companies listed on the Stock Exchange Indonesia (IDX). Population study as much as 41 company good commercial bank as well as state banks . Election sample done with method purposive sampling, namely technique determination sample with consideration certain things to do based on criteria:

1. Publishing company report finance by periodical ending on December 31 During year 2010-2014 observations .
2. Companies that have profit positive every year During year 2010-2014 observations .

Based on criteria election sample total sample obtained as many as 26 banking companies listed on the Stock Exchange _ Indonesia _ in period study 2010-2014 while _ the rest as many as 15 companies no fulfil criteria as depicted in the table under this:

TABLE 1
PROCESS AND SAMPLING TECHNIQUES

NO	Kriteria Sampel	Jumlah Bank
1	Populasi perusahaan perbankan	41
2	Bank yang tidak menerbitkan laporan keuangan selama tahun pengamatan	10
3	Bank yang memiliki laba operasional Negatif selama tahun pengamatan	5
4	Jumlah Sampel Terpilih	26

Based on these criteria , the companies that are used as sample in research research is as many as 26 companies banking . So the number of observation data in this study is 5 years x 26 samples is 130 observation data.They are Bank Agroniaga, Tbk , Bank Capital Indonesia, Bank Ekonomi Raharja,Tbk, Bank Central Asia,Tbk, Bank Bukopin,Tbk, Bank Negara Indonesia,Tbk, Bank Nusantara Parahayangan,Tbk, Bank Rakyat Indonesia (persero),Tbk, Bank Tabungan Negara (Persero),Tbk, Bank Swadesi,Tbk, Bank

Victoria Internasional,Tbk, Bank Danamon Indonesia,Tbk, Bank Mandiri (Persero), Tbk, Bank Bumi Arta,Tbk, Bank CimbNiaga,Tbk, Bank Internasional Indonesia, Tbk, Bank Permata,Tbk, Bank Sinarmas,Tbk, Bank Tabungan Pensiunan Nasional,Tbk, Bank Arthagraha Internasional,Tbk, Bank Mayapada,Tbk, Bank Mega,Tbk, Bank Windu Ketjana Indonesia,Tbk, Bank OCBC,Tbk, Bank Pan IndonesiaTbk dan Bank Himpunan Saudara 1906,Tbk

2.4 Data Collection Method

Data collection methods in study this using secondary data from report historical ratio the finances of each banking company . Data used is a combination of data between banks (cross section) and between banks time (time series) which is also known as poll data. Data collection is done by downloading the financial statements of banking companies during the year 20 10 -20 14 through the website (www.idx.co.id).

2.5 Definition Operations and Measurement Variable

Definition operational m formulate by clear and concise variables as well as indicators that influence it when there to get with easy understood and measured. On research this there is variable dependent , variable independent and variable moderating. For simplify the analysis process in study this , then following spelled out definition operational use.

2.5.1 Variable Independent

Variable Independent (free) is explanatory variable _ or influence variable another . Variable independent in this study are CAR,LDR,BOPO,NPL,Leverage.

2.6 Data Analysis Method

Method used for analyze data in study this is an analytical model multiple linear regression and residual test. Data analysis techniques with use tool help SPSS software for windows. Multiple linear regression aim for test big influence variable independent to variable dependent researched _ whereas for test the moderating variable used residual test.

2.7 Statistics Descriptive

Statistics descriptive used for give description general about profile from sample research. Statistics descriptive on research this focused to mean value or mean, standard deviation, minimum value and value maximum.

2.7.1 Classical Assumption Test

According to [28] , testing normality done for test is in statistical models variables study normal distribution or no that is through analysis histogram graphs and probability plots and known statistical tests with the Kolmogorov- Smirnov (KS) test.

2.7.2 Multicollinearity Test

Multicollinearity Test aim for test is in the regression model there is correlation Among variable independent. If the SPSS test results have correlation > 95% then there is indication multicollinearity . Multicollinearity Test can also be seen from VIF (Variance Inflation Factor) value and value tolerance v alue . The VIF limit is 10 and the Tolerance Value is 0.1. If the VIF value is greater than 10 and the t -tolerance value is greater than is less than 0.1 then multicollinearity occurs and must be issued of the models.

2.7.3 Autocorrelation Test

According to [28] , autocorrelation test aim for know is in a linear regression model exists correlation Among error perturbation in period t with error period t -1 (previous). Good regression model _ is free autocorrelation . Test tool for detect autocorrelation done with the Durbin-Watson test (DW - test). Pick -up basis decision there is whether or not autocorrelation is as following:

1. When the number DW not enough from -2, means there is autocorrelation positive
2. When the number DW is at between -2 to +2 then _ no there is autocorrelation
3. When the number DW more than +2, then there is autocorrelation negative

2.7.4 Heteroscedasticity Test



[28], test of heteroscedasticity aim to test Does the regression model have variance inequality? from residual a observation to another observation.

1. Test Hypothesis

Test hypothesis in study this using multiple linear regression model (multiple linear regression method) and residual analysis, where data processing is through SPSS (Statistical Package for Social Science).

2. Test Simultaneous (Test Statistics F)

F Uji test also called ANOVA test aims to find out how much big the effect of the independent variable simultaneously on the dependent variable. Test Equipment via SPSS with see results anova or F-test.

3. Test Partial (Test statistic t)

is used to test individual how much influence one independent variable is able to explain the dependent variable.

4. Coefficient Determination (R Squared)

Coefficient determination is a test for measure how much far deep modeling ability explain variable dependent . If R value 2 the more approach number 1 then variable independent the more could give information needed _ in predict variable dependent [28].

5. Moderating Variable Test

According to [28], the moderating variable is variable independent reinforcing _ or weaken connection Among variable independent with variable dependent .In this study,Intellectual Capital is as Moderating Variable.

3. Results and Discussion

3.1 Research Results

a. Statistics Descriptive

TABLE 2
STATISTICS DESCRIPTIVE

Variable	N	Minimum	Maximum	mean	Std. Deviation
ROA	130	.30	5.03	1.8395	.99313
CAR	130	11.70	24.40	16.5208	2.74168
BOPO	130	33.28	97.97	79.2399	12.62010
LDR	130	50.60	140.72	82.3131	12.75676
LEVERAGE	130	.68	.94	.8842	.03645
Uk_Perush	130	25.27	34.38	31.2779	1.80288
NPL	130	.01	3.33	1.1766	.81135
MI	130	2.30	14.25	4.1247	1.51941
Valid N (listwise)	130				

b. Normality Test

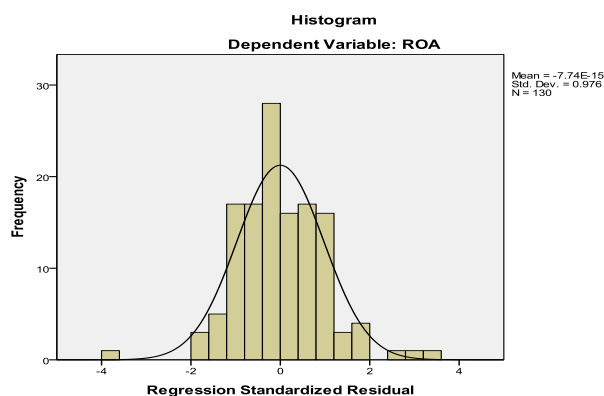


Figure 1. From the Histogram graph it can be seen that the graph display is normally distributed because the histogram graph does not deviate to the left or right.



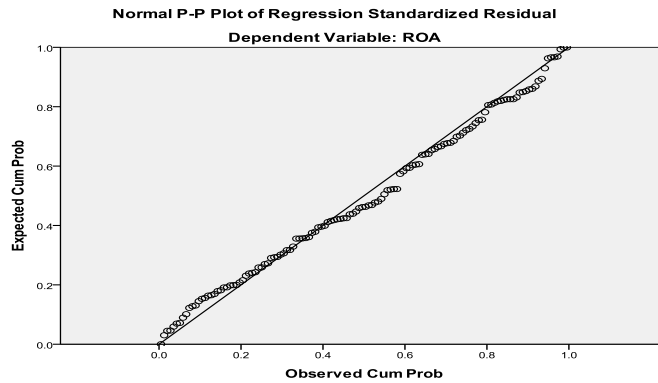


Figure 2. From the P-P Plot graph it can be seen that the points follow the direction of the diagonal line and spread around the diagonal line so that the regression model is feasible to use because it has met the normality test.

3. Multicollinearity Test

TABLE 3
COEFFICIENT CORRELATIONS ^A

Model		NPL	CAR	LDR	UK_PERUSH	LEVERAGE	BOPO
1	Correlations	NPL	1,000	-.168	-.191	-.101	-.274
		CAR	-.168	1,000	.123	.345	.535
		LDR	-.191	.123	1,000	.021	.143
		UK_PERUSH	-.101	.345	.021	1,000	.132
		LEVERAGE	-.171	.535	.143	.132	1,000

4. Heteroscedasticity Test

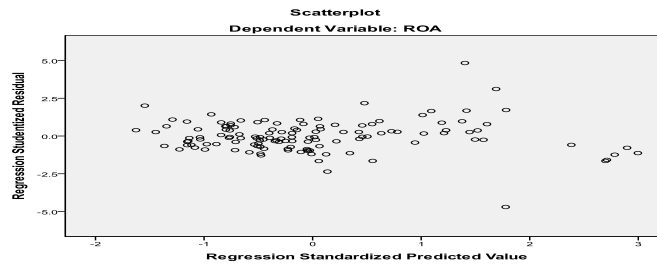


Figure 3. Figure shows that the distribution of plots on the graph has a wavy pattern, widening and the plots spread above and below the number 0 on the Y axis so that it can be said that all research variables used in this study are free from the assumption of heteroscedasticity.

Autocorrelation Test

TABLE 4
AUTOCORRELATION TEST MODEL SUMMARY ^B

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.845 ^a	.713	.699	.54469	1.011

F Uji test

TABLE 5
F UJI TEST
ANOVA ^b

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	90,740	6	15.123	50,974	.000 ^a
Residual	36,493	123	.297		
Total	127,233	129			

t test



TABLE 6
T TEST COEFFICIENTS ^A

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	8.264	2.275		3.632	.000
CAR	-.019	.023	-.054	-.858	.392
BOPO	-.058	.005	-.738	-12,374	.000
LDR	-.009	.004	-.117	-2,337	.021
LEVERAGE	-4.623	1.602	-.173	-2,948	.004
Uk_Perush	.106	.031	.193	3.391	.001
NPL	-.090	.063	.073	1,429	156

TABLE 7
COEFFICIENT DETERMINATION (R ²) MODEL SUMMARY ^B

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.845 ^a	.714	.697		.54630

TABEL 8
COEFFICIENTS ^A

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1,703	5.107		.333	.739
CAR	.041	.051	.074	.811	.419
BOPO	-.072	.011	-.601	-6.866	.000
LDR	.023	.009	.194	2,643	.009
Lev	10,478	3.596	.251	2,914	.004
Uk_Perus	-119	.070	-.142	-1,699	.092
NPL	.037	.141	.020	.259	.796

a. Dependent Variable: MI

5. Residual Test Table

TABEL 9
COEFFICIENTS ^A

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.201	.061		3.297	.001
ROA	.110	.029	.315	3,760	.000

3.2 Discussion

a. The Effect of CAR on Financial Performance

According to [13], increasing CAR tall will give more bank contribution good to profitability . However from results study this is known that CAR has an effect no significant and negative to performance finance (ROA) where results calculation by Partial obtained mark significant of $0.392 > 0.05$. in line with study [30] which states that CAR has an effect no significant on the performance (ROA) of banks in Indonesia is safe years 2008-2011. CAR results that are not significant on Performance (ROA) is possible because must every bank that tends maintain the CAR set by BI at least 8%. No Capital Increase comparable with increase assets where condition of the bank at the time done study this not enough good caused increase credit jammed . In terms of this bank do investment the funds very carefully _ where is the existing capital more addressed for buy Bank Indonesia Certificate (SBI) compared to for distribution credit so ATMR can Becomes small or Zero. A decrease in RWA causes an increase in CAR but credit given _ to public the more decrease so that operational no could walk smooth , deep bank opportunities get profit the more small . So the ups and downs of capital are not cause ups and downs performance that makes capital not influential significant to performance where are the banks in year observation no use capital optimally.

b. The Effect of BOPO on Financial Performance

[31] concluded that BOPO has an effect significant and negative to proxied bank performance with ROA. The same research results also supported by research by [32] which shows BOPO has an effect significant and negative to profitability. Researches the in line with study this is proven with mark significant $0.000 < 0.05$, indicating that the more big BOPO then bank profitability experienced decline. When banks run operational with efficient with attempted reduce BOPO then expected costs will becomes reduced that can Upgrade income.

c. The Effect of LDR on Financial Performance

From testing hypotheses and data analysis that has been done in research this could proved that LDR has an effect significant and negative to performance finance with mark significance $0.021 < 0.05$. in line with study [33] and [34], show that that LDR has an effect significant and negative to profitability. Different with The theory that states that the LDR is getting tall show the more big profitability of the bank. Difference this caused by increase in gift credit or withdrawal of funds from public impact on the low bank liquidity which has an impact on the loss of trust public against the bank in study so that profitability decreased. As example can on increase in LDR of Agroniaga bank from in 2013–2014 from 87.11 % to 88.49 % in fact will cause ROA to drop from 1.66% to 1.53%.

d. Influence Leverage on Financial Performance

In research this influential leverage significant and negative to performance finance proven banking _ with mark significance of $0.004 < 0.05$. in line with study [35] that influential leverage negative to profitability. The difference study this with theory possible that in year study not enough appropriate for raise leverage because no supported with the ability of creditors in the following refund flower loan by appropriate time consequence from situation an economy that doesn't stable and high level flower moment that so that not enough profitable for done expansion massive and distribution credit.

e. Influence Company Size On Financial Performance

According to [15] it works prove that size company influential significant and positive to performance finance banking. Study this works too prove results significance of $0.001 < 0.05$ means that size company influential significant and positive against performance. Where is the company banking on research this appropriate in use assets for operate operational.

f. NPL Effect On Financial Performance

By theory that the more high NPL then will result in the more height credit stuck in banking so that will lower performance banking. So if the NPL is high precisely impact on the decline bank performance. This thing in line with study [36] did successful research in Pakistan prove that the NPL is not influential significant and negative to company banking. Study this works too prove no the significance of NPL to company banking in Indonesia in the period proven time 2010-2014 _ with mark significant of $0.156 > 0.005$. Even though from visible data that the NPLs of registered banks under 5% determination no as well as ROA immediately increases, it is suspected because on condition moment this that bank function as intermediation less than optimal.

g. Influence of Intellectual Capital As Moderator

According to study [37], intellectual capital could Upgrade performance from connection by no direct to report financial results generated, but in _ next study Pulic succeed prove that intellectual capital influential positive and significant to performance. With existence relationship that doesn't direct intellectual capital to performance so that researcher make intellectual capital the as moderating variable. As for in study this succeed prove that intellectual capital as reinforcing moderator _ connection Among CAR, BOPO, NPL, LDR, Size Company, Leverage and NPL with Financial Performance with results significance of $0.000 < 0.05$ and has parameter coefficient of 0.110.

4 Conclusion

From result research and testing the hypothesis that has been done could taken conclusion as following by Simultaneous CAR, BOPO, LDR, Leverage, Size influential companies and NPL on Financial Performance Banking, however by Partial only CAR and NPL have an effect no significant to performance finance and



Intellectual Capital Variable is reinforcing moderating variable connection between CAR, BOPO, LDR, Leverage, Size company and NPL with Financial Performance Banking During period year observation .

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