

# Analysis of Factors Affecting Profitability in XYZ Bank (One of Commercial Bank in Indonesia)

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**Abstract-** The aim of this study was to determine the factors that influence the profitability in one of commercial bank in Indonesia, both internal and external. Assessment of the financial performance of banks is important for stakeholders and may also increase of the level of customers' trust. Profitability of banks can be seen from the Return on Asset (ROA), Return on Equity (ROE) and Return On Investment (ROI) ratio. This research used secondary data taken from the banks' annual reports and website of Bank Indonesia. The method used in this study was the Vector Error Correction Model. The results showed that nearly all of the company's internal variables such as LDR, ROA, NIM and CAR had significant effect in the short term, while all external variables did not have significant effect towards profitability in both the short and long term. Impulse Response Function (IRF) analysis results indicate that the shock of one standard deviation on all internal variables except NPL gives corresponding response while external variables fluctuated in coherence with ROA, ROE and ROI. Forecast Error Variance Decomposition (FEVD) analysis results, as well as BI and ROA were dominantly influencing the value of ROA, NIM and GDP were dominantly influencing the value of ROE, meanwhile the CAR and inflation rate were dominant in influencing the value of ROI.

**Index Terms-** Profitability, internal factors, external factors, VECM

## I. INTRODUCTION

Profitability is the level of banks' ability to generate profits for a certain period expressed as a percentage. The level of bank profitability is calculated by using the ratio Return on Assets (ROA), which is the ratio between netincome by total assets. ROA reflects management ability of banks to generate profits from assets owned bank (Athanasoglou, 2005). According to Robbert (1997), in addition to ROA level of profitability can be calculated from the ratio Return On Equity (ROE) and Return On Investment (ROI). Three of these ratios can be seen and measured by analysis of financial statements. Analysis of the financial statements is very important to keep the leadership of the company can obtain information related to the company's financial position and results have been achieved by a company every year in order to determine future strategy.

XYZ Bank is the only national private commercial bank which is wholly owned by the natives. This bank also one of the leading banks in Indonesia which has a medium-sized primary focus on Small, Medium and Micro Enterprises (SME). By looking at the dynamics and fluctuations in financial ratios for commercial banks, it is important to be able to determine the internal and external factors that influence the performance of this bank, especially profitability. So that it can be used by the management company to improve efficiency and improved performance in the future which in turn can also help promote the SME sector which has considerable influence on the economy of Indonesia.

Macroeconomic conditions such as rising fuel prices, the weakening of the rupiah, fluctuations in commodity prices is uncertain, and changes in government regulations and other factors, which could increase the threat of inflation will result in the increase of bad debts ratio. Therefore an increase of bad loans will lead to increase of provisioning of productive assets that will affected to profitability.

This study analyzes number of factors that impact on the profitability of XYZ Bank aims to;

1. Analyze the influence of internal factors on the performance of banks XYZ Bank measured approach ROA, ROE and ROI.
2. Analyze the influence of external factors on the performance of banks XYZ Bank measured approach ROA, ROE and ROI.
3. Formulate alternative strategy for XYZ Bank in increasing efficiency and improving its performance in the future.

## II. LITERATURE REVIEW

Profitability is the ability of a company for a profit (profit) in a given period. Husnan (2001) stated that profitability is the ability of a company to generate profit (profit) on the level of sales, assets, and a specific share capital. In the other hand, according to Michelle and Megawati (2005), the profitability is a company's ability to generate profits (profit) which will be the basis of dividend companies.

Profitability ratio is the ratio that shows the combined effects of liquidity, asset and debt management to assess the operating results for the company's ability to make a profit (Kashmir, 2008). This ratio also provides a measure of the effectiveness of

management of a company. According to S. Munawir (2004), the analysis of the profitability of a company's ability to generate profits for a certain period. This analysis measures the overall performance, the company and efficiency in the management of assets, liabilities and wealth. There are three ratios are often used to measure profitability, namely Return ON Assets (ROA), Return On Investment (ROI) and Return On Equity (ROE).

Research on the measurement of bank performance with regard to profitability by using financial ratios have been conducted in several countries. Anto and Wibowo (2011) examines the impact of macroeconomic variables on the profitability of Islamic banking in Indonesia. This study uses error correction models (ECM) using samples of three Islamic banks have published financial statements of the first quarter of 2006 until the third quarter of 2011. Results from this study showed that the only variable interest rate has an influence on the profitability of Islamic banking in Indonesia. Test Dickey-Fuller (DF) and Augmented Dickey-Fuller (ADF) to prove that there is a long-term co integration between the Gross Domestic Product (GDP), inflation, interest rates, market share, money supply and profitability of Islamic banking.

Masood (2009) conducted research on an empirical study on the profitability of banks in Saudi Arabia. This study aimed to analyze the determinants of profitability of banks in Saudi Arabia in the period 1999-2007 to investigate the cointegration and the interrelationships between the Return On Assets (ROA) and Return On Equity (ROE). Analyses were performed using Augmented Dickey Fuller test (ADF), Johansencointegration test and Granger causality test. The results of this study indicate that there is a strong cointegration relationship between the variables.

In 2012, Masood also doing research on whether there is cointegration and reciprocal relationship between non-stationary variables on the profitability of banks in China. This study took data from the 2003-2007 period, with the variables studied are the total assets and total equity of banks in China. Data analysis used Augmented Dickey Fuller (ADF), Johansen cointegration test and Granger causality test. The results of this study suggest that the relationship between the two variables is proven and cointegrated strongly.

Cudia (2012) in his study stated that the global financial crisis in 2008 led to huge losses at financial institutions and led to a decrease in economic activity. Research conducted to analyze the impact of the financial crisis on the export sector in the Philippines using vector auto regression (VAR). Variables studied form of Gross Domestic Product (GDP), the currency movement in the exchange rate Philippine Peso (PHP) to US Dollar (USD) as well as changes in the value of GDP of USA and the import value of the USA as the main trading partner of the Philippines. The results of this study indicate that the global financial crisis affect the export performance as the Philippines and also affects the changes in export policies in the Philippines.

KAYIKCI conduct research on the determinants of the current account in Turkey by using vector auto regression approach in 2011. The aim of this study was to examine similarities between the theoretical research results with a current account deficit of economic variables in Turkey. The data used are taken from the period 1987 to 2009. Selection of variables related to the current account have economic explanations difficult to decide until the end of the variables used is the ratio to GDP Current Account (CA), Real Gross Domestic Product Growth Rate (GROWTH), the ratio of Gross Capital Formation to GDP (INV), the ratio of Saving to GDP (SAV), the ratio of Exports and Imports to GDP (OPEN), Growth of Brent Oil Prices in Europe (OIL), the Consumer Price Index Growth Rate (INF) and Reel Effective Exchange Rate (REER). The results of this study show that inflation has a positive influence on the current account in which growth, the ratio of exports and imports, high oil prices and the appreciation of the exchange rate caused the current account balance deteriorated.

Based on the above results, still need to be tested again internal and external factors affecting the profitability of XYZ Bank. This study aimed to analyze the influence of the internal and external factors on the performance of XYZ Bank measured approach ROA, ROE and ROI. Problem in this study was to examine whether factors internal and external factors have an influence on the profitability of XYZ Bank. From the results of this study are expected to be useful and provide an alternative managerial implications for XYZ Bank in increasing efficiency and improving its performance in the future.

### III. METHODOLOGY

The data used in this research is quantitative data. The dependent variable data such as ROA, ROE and ROI derived from published financial statements of XYZ Bank in website of Bank Indonesia. Data of independent variable in the form of LDR, CIR, CAR, NIM and NPL derived from the publication of the annual financial report of XYZ Bank in website of Bank Indonesia. Independent variable data such as BI Rate, Exchange Rate, Inflation, GDP was also obtained from the website of Bank Indonesia. All data will be used is a time series data from 2000 to June 2015 per three months.

The method used in this research is Autoregression Vector (VAR) or Vector Error Correction Model (VECM), followed by analysis of the response to shocks by using Impulse Response Function (IRF) and continued with the analysis of the contribution using the Forecast Error Variance Decomposition (FEVD). To meet the rules of statistics, testing the pre-estimation, among others, the unit root test with the purpose of examining stationarity data by using Augmented Dickey-Fuller Test (ADF), then proceed with the determination of the optimal lag. The selected candidate lag is the lag length according to the criteria Likelihood Ratio (LR), Final Prediction Error (FPE), Akaike Information Criterion (AIC), Schwarz Information Criterion (SC) and Hannan-Quinn Criterion (HQ). The next test is to determine whether there is cointegration relationship between variables. If there is no cointegration relationship, unrestricted VAR models can be applied. But if there is a relationship between the series cointegration, VECM models used. Pre-testing phase last estimate is Granger causality test to determine whether or not two-way relationship between variables. The following is a general equation of testing using the VAR / VECM;

ROA Profitability Test

1. Internal Factor

$$ROA_t = C_1 + \alpha_1 ROA_{t-1} + \alpha_1 LDR_{t-1} + \alpha_1 CIR_{t-1} + \alpha_1 NIM_{t-1} + \alpha_1 CAR_{t-1} + \alpha_1 NPL_{t-1}$$

2. External Factor

$$ROA_t = C_1 + \alpha_1 ROA_{t-1} + \alpha_1 BI\ Rate_{t-1} + \alpha_1 Exc_{t-1} + \alpha_1 Inf_{t-1} + \alpha_1 GDP_{t-1} + \alpha_1 JCI_{t-1}$$

ROE Profitability Test

1. Internal Factor

$$ROE_t = C_1 + \alpha_1 ROE_{t-1} + \alpha_1 LDR_{t-1} + \alpha_1 CIR_{t-1} + \alpha_1 NIM_{t-1} + \alpha_1 CAR_{t-1} + \alpha_1 NPL_{t-1}$$

2. External Factor

$$ROE_t = C_1 + \alpha_1 ROE_{t-1} + \alpha_1 BI\ Rate_{t-1} + \alpha_1 Exc_{t-1} + \alpha_1 Inf_{t-1} + \alpha_1 GDP_{t-1} + \alpha_1 JCI_{t-1}$$

ROI Profitability Test

1. Internal Factor

$$ROI_t = C_1 + \alpha_1 ROI_{t-1} + \alpha_1 LDR_{t-1} + \alpha_1 CIR_{t-1} + \alpha_1 NIM_{t-1} + \alpha_1 CAR_{t-1} + \alpha_1 NPL_{t-1}$$

2. External Factor

$$ROI_t = C_1 + \alpha_1 ROI_{t-1} + \alpha_1 BI\ Rate_{t-1} + \alpha_1 Exc_{t-1} + \alpha_1 Inf_{t-1} + \alpha_1 GDP_{t-1} + \alpha_1 JCI_{t-1}$$

Legenda:

ROA	= Return On Asset	CAR	= Capital Adequacy Ratio
ROE	= Return On Equity	NPL	= Non Performing Loan
ROI	= Return On Investment	BI Rate	= Benchmark Rate
C	= Constanta	Exc	= USD-IDRExchange Rate
LDR	= Loan to Deposit Ratio	Inf	= Inflation value
CIR	= Cost to Income Ratio	GDP	= Gross Domestic Product
NIM	= Net Interest Margin	JCI	= Jakarta Composite Index

IV. RESULTS AND DISCUSSIONS

The data used in this study has been carried out pre-test estimates include unit root test (unit root test). ROA unit root test results as well as internal and external variables XYZ Bankentire data are stationary at first difference where it appears that the value of the whole variable ADF is smaller than the critical value McKinnon. The next test is to determine the optimal lag by comparing the Akaike Information criterion (AIC) and the Schwartz Criterion (SC) of each test lag. Johansen cointegration test results with Cointegration Test to determine the cointegrating rank indicates that there is cointegration between variables. Due to the cointegration, that means the data can be analyzed using Vector Error Correction Model. VECM estimation results on internal factors variables on ROA, ROE, and ROI can be seen in Table 1.

Table 1. Estimation results VECM internal variable factors against ROA, ROE and ROI

VARIABLE	SHORT TERM					
	ROA		ROE		ROI	
	Coefisient	T-Statistic	Coefisient	T-Statistic	Coefisient	T-Statistic
CointEq1	0.088297	0.47172	0.004277	0.13843	2.27927	9.40133
D(ROA(-1))	0.565742*	3.08303	-0.104536	-0.639	-0.334094*	-2.47526
D(ROA(-2))	0.2925	1.83984	0.070596	1.12315	-0.009746*	-2.27057
D(LDR(-1))	-0.002545	-0.40415	0.071365	1.14039	-0.009563*	-2.1918
D(LDR(-2))	0.010206*	-1.67076	0.262221	0.90847	-0.001359	-0.08142
D(CIR(-1))	0.032785	0.95321	0.583479	2.09514	0.006544	0.41868
D(CIR(-2))	0.064564*	2.19496	1.345819*	-2.14021	0.03848	1.09100]
D(NIM(-1))	-0.115497	-1.76051	1.198979*	1.86404	0.058707	1.52651
D(NIM(-2))	-0.056364	-0.81667	0.317091	0.86352	-0.045325	1.68403
D(CAR(-1))	-0.049726	-1.21528	0.03404	0.08805	0.065555*	2.50253
D(CAR(-2))	-0.015699	-0.40786	-0.304767	-0.33724	-0.045464	-0.84201
D(NPL(-1))	0.021113	0.17203	-0.592693	-0.7141	-0.061145	-1.26056

D(NPL(-2))	-0.139333	-1.45866				
LONG TERM						
LDR(-1)	-0.001233	-0.23651	-0.904811	-3.10232	0.004149	3.95472
CIR(-1)	-0.074775	-2.392	1.745871	1.00213	0.009576	1.57769
NIM(-1)	0.142676	1.58362	13.02601	2.57266	0.034439	1.54304
CAR(-1)	0.17483	6.08235	7.050276	4.15555	0.065871	11.2459
NPL(-1)	0.508608	4.06806	9.089183	1.33324	0.000162	0.64208

The estimation results of Vector Error Correction model shown in Table 1 shows that in the short term ROA leave a positive and significant impact on ROA itself amounted to 0.565742. This means that the ROA with a lag of one month before giving a boost ROA coming months amounted to 0.565742% (ceteris paribus). Similarly, the variable CIR significant positive effect on ROA of 0.0064564, which means that the increase in ROA two months earlier will lead two months later ROA increased by 0.0064564%. LDR variable is negative and significant effect in the short term to ROA amounted to 0.010206, which means that an increase in the LDR with a lag of two months earlier resulted in a decrease in ROA two months of the coming of 0.010206%.

VECM estimation results to the ROE variable internal factors shown in Table1 also shows that in the short term CIR have negative and significant impact on ROE amounted to 1.345819. This means that the increase of CIR that occurred in the two previous periods will lower ROE in two periods thereafter of 1.345819%. Another variable that has a short-term impact is NIM with a negative and significant influence amounted to 1.198979, which means that the increase in NIM of the previous period will have an effect on increasing ROE amounted to 1.198979% in the period thereafter.

VECM estimation result of internal factors on the ROI variables shown in Table 1 shows that in the short term ROI variables gives a negative influence and significant to himself for two years in a row amounted to 0.957003 and 0.334094. This means that the improvement that occurred in the ROI of the previous period resulted in a decrease in ROI for a period thereafter of 0.957003% and increased ROI in the two previous periods led to a lower ROI on two periods thereafter of 0.334094%. Variable LDR also have a negative influence and significant for two years against an ROI of 0.009746% and 0.009563%, which means that the increase in LDR at one and two previous periods resulted in ROI on one and two periods thereafter decreased respectively by 0.009746% and 0.009563%. Another variable that has the effect of CAR which are significant positive effect on ROI of 0.065555, the meaning is that the increase in CAR in the two previous periods affect the ROI on two periods thereafter of 0.065555%. VECM estimation results of external factors on ROA, ROE, and ROI can be seen in Table 2.

Table 2. Estimation results VECM external variable factors againstROA, ROE andROI

VARIABLE	SHORT TERM					
	ROA		ROE		ROI	
	Coefisient	T-Statistic	Coefisient	T-Statistic	Coefisient	T-Statistic
CointEq1	-0.013583	-0.11282	0.127127	1.05007	-0.009202	-0.40247
D(ROA(-1))	0.521406*	2.8672	0.135711	0.71409	0.347426*	2.6543
D(ROA(-2))	0.512775*	2.90077	-0.131366	-0.77539	0.595047*	4.55911
D(BI_RATE(-1))	-0.076171	-0.49597	1.026554	0.84168	-0.059909	-0.40995
D(BI_RATE(-2))	0.14498	1.04599	-0.111898	-0.09483	0.093528	0.73431
D(EXC(-1))	-0.000017	-0.11893	0.000448	0.30662	-0.00001	-0.07448
D(EXC(-2))	-0.000185	-1.41541	-0.001138	-0.84971	-0.0000767	-0.59497
D(INF(-1))	-0.003363	-0.07289	-0.181741	-0.47826	'-0.057314	-1.16138
D(INF(-2))	0.015613	0.36297	-0.081692	-0.21536	0.011482	0.23066
D(GDP(-1))	0.054391	0.30977	-1.318902	-0.95385	'-0.042442	-0.28271
D(GDP(-2))	-0.193739	-1.25273	-0.652802	-0.4806	0.087478	0.58402
D(JCI (-1))	0.000208	0.74016	0.000709	0.24747	-0.0000189	-0.06332
D(JCI(-2))	-0.000608	-0.19543	-0.001500	-0.48783	-0.0000637	-0.19989
LONG TERM						
BI_RATE(-1)	-0.055123	-0.91531	2.609573	5.45397	1.244754	5.57948

EXC(-1)	0.000871	-4.36275	-0.003783	-2.64633	0.002561	3.69908
INF(-1)	0.206303	3.42071	-0.630103	-1.43288	-2.225031	-8.83732
GDP(-1)	-1.390265	-5.89746	-0.570711	-0.33193	2.863715	3.44261
JCI(-1)	0.000802	5.73215	-0.000326	-0.32449	-0.001529	-3.05316

Table 2 shows that the whole of macroeconomic variables did not significantly affect the ROA, ROE and ROI both in short

term and long term. Only ROA which has a positive and significant impact on itself in the short term for 2 years, that is equal to 0.521406 and 0.512775. This means the improvement occurring in ROA at one and two previous periods resulting in an increase in ROA one and two periods after each of 0.521406% and 0.512775%. Table 5 also shows the ROI has a positive influence and significant to himself in the first and second years (short term) respectively 0.347426 and 0.595047%, which means that an increase ROI on one and two previous periods resulting in increased ROI row by 0.347426 % and 0.595947% at one and two periods thereafter.

**Test Results Impulse Response Function (IRF)**

Analysis of the impact of internal factors variable shocks on the profitability of XYZ Bank which is reflected on the ROA, ROE and ROI ratio are measured using the IRF function to determine the response of an endogenous variable to shock on a particular variable. Impulse response is the response of a dependent variable when getting shocks or innovations independent variables of one standard deviation. The purpose of this analysis to be able to see the response of long-term dynamics of each variable when there is a certain shock of one standard deviation in each equation.

In Figure IRF presented the results during the 50 months ahead of the model VECM to see the response to ROA, ROE and ROI to shocks LDR variable. Shocks that occur in the company's Loan to Deposit Ratio responded positively by ROA, ROE and ROI XYZ Bank. Shocks that occur in CIR responded negatively by ROA, ROE and ROI. Shocks in NIM responded positively by ROA, ROE and ROI. Shocks that occur in CAR responded positively by ROA, ROE and ROI. Shocks that occur in NPL responded negatively by ROE, but responded positively by ROA and ROI of XYZ Bank.

Shocks that occurred on macroeconomic variables (BI Rate) responded positively by ROA, ROE and ROI. Shocks that occur in Exchange Rate responded positively by ROA and ROE, but responded negatively by ROI. Shocks that occur in Inflation responded positively by ROA and ROI, but responded negatively by ROE. Shocks that occur in GDP responded negatively by ROA and ROI, but responded positively by ROE. Shocks that occur in JCI responded negatively by ROA and ROI, but the positive response by the ROE of XYZ Bank.

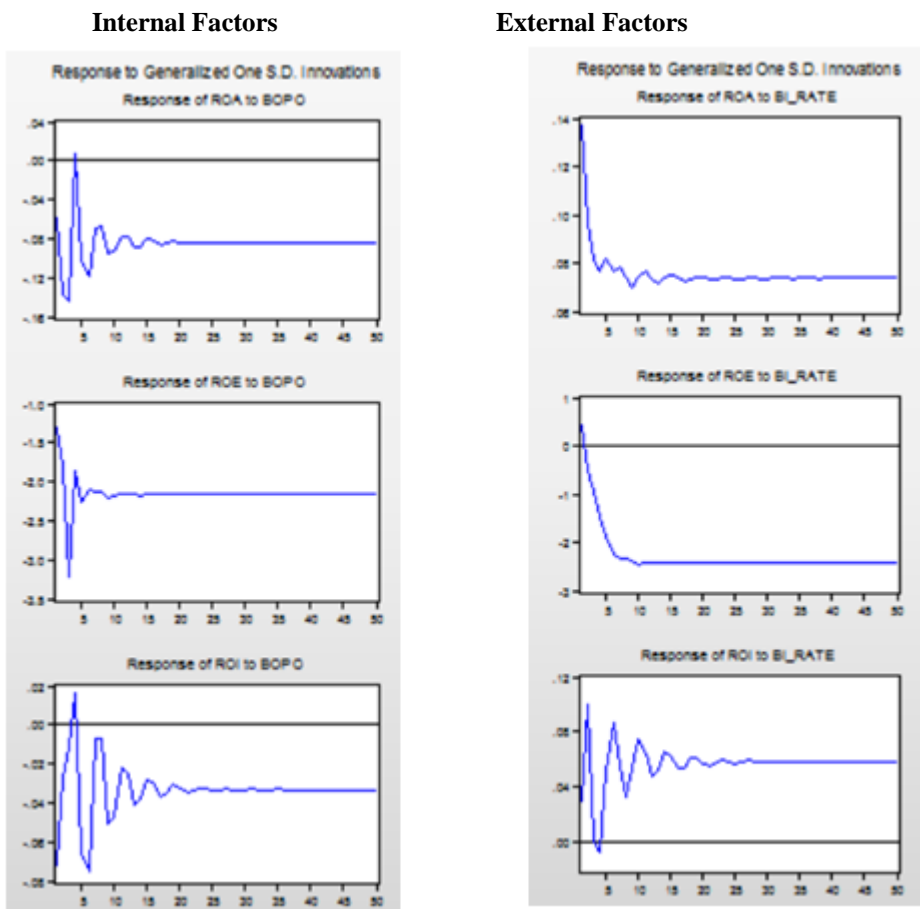


Figure 1. Response ROA, ROE and ROI to shocks CIR (internal factors) and BI Rate (external factors)

**Results Forecast Error Variance Decomposition (FEVD)**

Forecast Error Variance Decomposition is an analysis that is used to see how much influence or contribution of a particular variable shocks to endogenous variables. This analysis generates information about how strongly the composition of the role of other variables in the model VECM. The contribution of each variable can be seen in Figure 2.

FEVD analysis results on the internal factors of the company shows that the variable CIR has the largest contribution to the ROA and ROI, then the variable CAR has the largest contribution to the ROE. ROA is the ratio obtained from the ratio of total operating expenses to operating income of banks and is often used as the company's efficiency. ROA ratio greater indicates a lack of the ability of a bank to reduce the cost of operations. CIR have a negative effect to banks's performance, which shows that the larger the ratio of total operating expenses to operating income would lead to lower profitability (Mawardi, 2005).

**Internal Factors**

**External Factors**

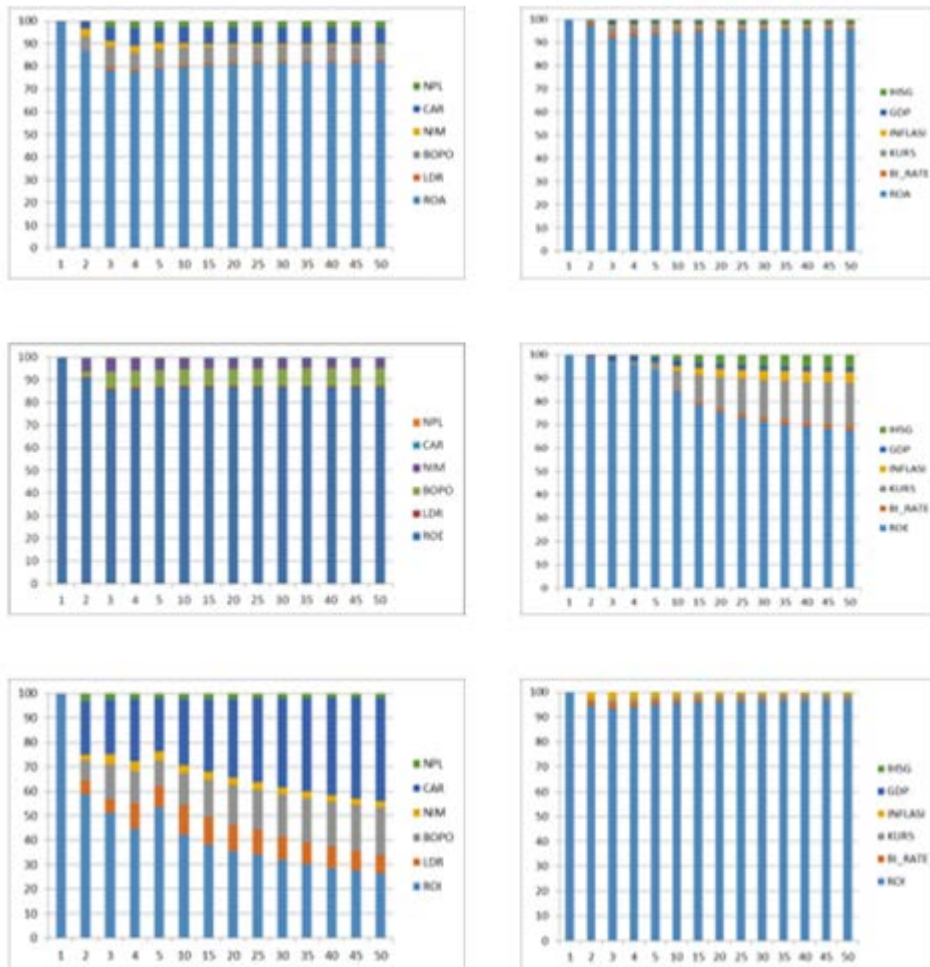


Figure 2. Results of the analysis of the variables FEVD internal and external factors on ROA, ROE, and ROI

Capital Adequacy Ratio (CAR) provided the largest contribution to the profitability of banks approximated by Return On Investment (ROI). According to Bank Indonesia, CAR is a ratio that shows how much the total assets of banks that contain risks (credit, investments, securities, bills to other banks) is also financed from own capital. CAR ratios set by Bank Indonesia is at least 8%, assuming the bank is able to absorb losses that might arise from banking operations. The greater the ratio of CAR owned a bank, the bank further increased solvency will affect the bank's performance improvement due to the losses incurred can be absorbed by the bank owned capital (Tariq, 2014)

On the external factors, the exchange rate has the largest contribution to the ROA and ROE, while the variable inflation and BI simultaneously have the largest contribution to ROI of XYZ Bank. Foreign exchange rates can be defined as the amount of domestic money is needed, namely the number amount needed to obtain one unit of the US Dollar. The exchange rate used in this study is the middle rate between the selling rate buying rate of USD-IDR. According to Van Greuning (2011) the currency risk posed by the change in the exchange rate between the currency of domestic banks and other currencies. It is derived from a mismatch in assets and liabilities that are valued in different currencies. Non-compliance can lead to a bank experiencing losses due to exchange rate movements. This means that the strengthening that occurs in IDR resulted in increased profitability of XYZ Bank.

XYZ Bank as foreign exchange bank that facilitate international trade cannot avoid being influenced by the exchange rate for its involvement in the foreign exchange market. According to Dwijayanthi and Naomi (2009), the effect of foreign currency exchange rates on the profitability of banks to identify if the exchange rate appreciation and depreciation will have an impact on foreign currency bank obligations at maturity. In addition to facilitating international trade, banks can also be affected by exchange

rate depreciation by customers who have substantial funds in the form of US dollars, as a result the profitability of banks will be amended (Arifin, 2009).

The second largest contribution is BI Rate. Bank Indonesia interest rate is the interest rate that reflects the policy stance of monetary policy set by Bank Indonesia and announced to the public. Bank Indonesia to raise the BI rate when inflation is expected to exceed the target set, and vice-versa. The annual rise in the BI Rate will lead to an increase in interest rates Third Party Fund (DPK). If the interest rate increase in deposits is not in line with or greater than the rise in mortgage interest rates will cause a reduction in bank profits as a result of increased interest expense (Zulfiah and Susilowibowo, 2014).

## V. CONCLUSION

The study of internal factors of XYZ Bank, which is reflected through the Capital Adequacy Ratio, Loan to Deposit Ratio, Cost to Income Ratio, Net Interest Margin and IDR exchange rate against the USD, Gross Domestic Product, Inflation and Jakarta Composite Index shows the influence of the dynamics of Return on Assets, Return on Equity and Return on Investment. VECM estimation results show that almost all companies except NPL internal factors have a significant effect on profitability in the short term, while external factors do not have a significant impact in both the short and long term. IRF analysis results indicate that the shock of one standard deviation in the entire internal variables except NPL responded accordingly, while the variable external factors fluctuated responded by ROA, ROE and ROI. Results of FEVD analysis, CIR variable is quite dominant in the exchange rate affect the value of ROA, NIM and Exchange rate dominant variable in influencing the value of ROE and ROA, while Inflation and BI Rate has its dominance in influencing value of ROI.

Based on the above conclusions, the management of XYZ Banks need to pay attention to internal factors that significantly influence the profitability of the company, as of CAR, LDR, CIR and NIM. Several managerial implications related to the research are as follows;

1. Increased expansion of the company require additional capital sufficient strength and can absorb losses that might come up with ways to improve the company's assets through additional paid-in capital through retained earnings or by launching debentures (bonds).
2. Profitability of the company can be increased by increasing the effectiveness and efficiency, by lowering operational costs such as overhead and interest expense as credit expansion is done so that the greater the margin earned.
3. Giving credit to customers to be more selective and effective so that the amount of bad loans can be minimized in order to avoid an increase in reserve assets which will affect the increase in operating costs.
4. It should be varied banking products and services that generate non-interest operating income in the form of fee-based income and improve the utilization of products and services from existing customers so that operating income does not always depend on interest income.

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