INTERNATIONAL JOURNAL OF SOCIAL Sciences and Information Technology
ISSN 2412-0294 www.ijssit.com

http://www.ijssit.com Vol II Issue IX, October 2016
ISSN 2412-0294

EFFECT OF MACROECONOMIC FACTORS ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN NIGERIA

[1*] **Sunday Baba**

Master of Finance and Accounting,
Jomo Kenyatta University of Agriculture and Technology
sundaybaba8@gmail.com

[2 **] **Dr. Tabitha Nasieku**
Jomo Kenyatta University of Agriculture and Technology
tabithanasieku@gmail.com

Abstract

Commercial banks play an important role in the operation of an economy since they are the financial intermediaries that channel funds from savers to borrowers for investment which is an important thing for a country's economic growth. The analysis of the effect of Macroeconomic factors on financial performance of Commercial Banks in Nigeria is thus vital. The findings indicated that real interest rate, unemployment rate as well exchange rate are negatively and significantly associated with the performance of commercial banks in Nigeria. The findings also indicated that unemployment rate, exchange rate and real interest rate have a significant relationship with financial performance of commercial banks in Nigeria while inflation has an insignificant relationship with financial performance. The study recommends that commercial banks operating in Nigeria should effect strategies that aim to adjust their lending rates and financial activities when the rate of real interest rate set by the Central Bank of Nigeria increases since real interest rate has a negative effect on commercial banks financial performance. The study also recommends that commercial banks should be aware of the changes in exchange rate and interest rate and adjust their rates accordingly since an increase in interest rate worsens the performance and an increase in exchange rate betters the financial performance.

Keywords: commercial banks, financial performance, macroeconomic factors

1. Background of the Study

Otieno (2013) states that macroeconomic factors of bank performance are those characteristics of a macro economy that affects the profitability of the banks operating within it. According to him, they vary in their respective levels of significance from one economy to another and cannot be directly controlled by individual shareholder and managerial decisions and activities. He stated that macroeconomic factors of bank profitability which include economic growth (GDP), inflation, interest rates and exchange rate, will provide a theoretical backup for the explanatory variables that are included in the empirical estimations of this study.

The financial stability of the banking sector relies heavily on the stability of the economy. Given the relation between the well-being of the banking sector and the growth of the economy (Levine, 1998), knowledge of the effect of macroeconomic factors on Commercial Banks financial performance in Nigeria is therefore essential not only for the managers of the banks, but also for numerous stakeholders such as the central banks, bankers associations, governments, and other financial authorities. Knowledge of these factors would be useful in helping the regulatory authorities and bank managers formulate future policies aimed at improving the profitability of the Nigerian banking sector.

As Sayedi (2013) states, macroeconomic factor like interest rates plays a crucial role in attraction of investors. Without interest rates stability, domestic and foreign investors will stay away and resources will be diverted elsewhere. Econometric evidence of investment behavior indicates that in addition to conventional factors (past growth of economic activity, real interest rates, and private sector credit), private investment is significantly and negatively influenced by uncertainty and macroeconomic instability.

Buyinza (2010) on the other hand, states that banks are said to be heavily dependent on the funds mainly provided by the public as deposits to finance the loans being offered to the customers. There is a general notion that deposits are the cheapest sources of funds for banks and so to this extent deposits have positive impact on banks profitability if the demand for bank loans is very high. That is, the more deposits commercial bank is able to accumulate the greater is its capacity to offer more loans and make profits.

The Nigerian banking sector has continued to financially perform poorly since the 1940s with an observation of the banking failures of late 1940s and early 1950s (banking boom and banking doom), and that of 1994-2000 which led to the erosion of confidence in the banking system (CBN, 2001). Between 1994 and 2000, a total of 33 terminally distressed banks were liquidated (CBN, 2001). Also, with the consolidation exercise, the number of banks was reduced from 89 banks in 2004 to 24 groups of banks in 2006 to 2010. With 8 banks now adjudged to be in grave situations, the number of banks will likely reduce to 16 commercial banks even as their poor financial performance continues to loom.

2. Statement of the Problem

This study sought to establish the situation that holds in the Nigerian economy on the relationship between macroeconomic environment and financial performance of commercial banks since previous studies have recorded mixed findings. Studies by Arpa, Giulini and Pauer (2001) and Schwaiger and Liebig (2008) indicate a positive relationship between macroeconomic factors like GDP growth rate and financial performance while other studies for instance a study by Bernake and Geitler (1989) have indicated negative relationship between GDP growth rate and financial performance of commercial banks. Other studies have indicated no relationship between macro-economic factors and financial performance of commercial banks for instance a study by Alper and Anbar (2011) and Anna *et al*., (2008). In the wake of these contradicting results, the study sought to establish the effect of macroeconomic factors on the performance of commercial banks in Nigeria.

3. Study Objectives

The study specifically aimed to evaluate the effect of unemployment rate, inflation, exchange rate and interest rate on financial performance of commercial banks in Nigeria.

4. Conceptual Framework

Below is a figurative representation of the variables explored by this study

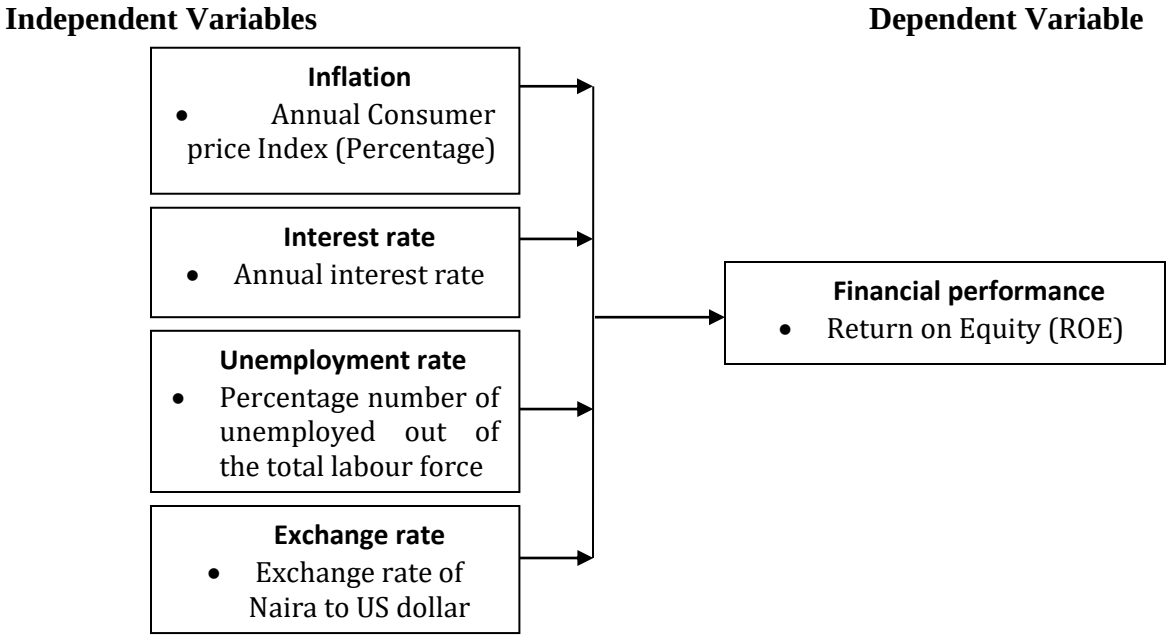


Figure 1: conceptual framework

5. Research Gaps

The review of literature presented the conceptual, contextual and methodological research gaps. Conceptual research gaps arise when a study looks at different concepts or considers different

variables. Contextual research gap arose because the studies are conducted in different geographical as well as sectoral contexts and a need arises to compare results. Methodological research gap arose because different methods have been used to analyse the same concept and it becomes necessary to use a different approach for comparison purposes. Some of the reviewed studies for instance studies by Ani *et al*. (2012) which examined the effect of bank consolidation on cost savings for consolidated banks in Nigeria for ten year-period (2000 – 2009) and Ofoegbu and Iyewumi (2013) which investigated the effect of deregulation and consolidation on the level of competition in the Nigerian banking industry presented conceptual research gaps while the study by Ofoegbu & Iyewumi (2013) and Simpasa (2013) which examined how competitive the Zambian banking system will be for the period 1998 to 2011 presented methodological research gaps since they used OLS and Panzar-Rose (PR) methodologies respectively while the current study will conduct a panel data analysis. Due to these mixed results as well as research gaps, the study established the effect of Macroeconomic factors on financial performance of Commercial Banks in Nigeria.

6. Research methodology used

An explanatory research design was adopted. This study targeted all the 23 licensed commercial banks operating in Nigeria in the study period. The study analyzed secondary data collected from annual reports of the commercial banks, published data on company websites, research centers, Nigerian national bureau of statistics and World Bank.

Table 1: Operationalization of study variables

Variable	Measurement
Financial performance of commercial banks	ROE (Net income/Total Equity) (Kosmidou et al. , 2006)
Unemployment rate	Percentage of unemployed labour force (Ifeacho, 2014)
Inflation	Consumer price Index (Percentage) (Anna et al., , 2008)
Exchange rate	Annual exchange rate of Naira on Us dollar (Ofoegbu and Iyewumi , 2013)
Interest rate	Annual real interest rate (Alper and Anbar , 2011)

7. ANALYSIS AND FINDINGS

A survey research design was used and a population of 1500 business enterprises formed the sampling frame. The sample for the study comprised of 150 business enterprises selected where simple random and stratified sampling technique was used since the population was heterogeneous. The questionnaire technique was used to obtain information from the respondents. Kothari (2004) observes that a questionnaire is good for research studies as they enable a researcher to collect more information which is not directly observable. Based on the above facts, the researcher used questionnaires to collect primary data since it was suitable research instrument for data collection in this study. Secondary data was collected from past research reports. After gathering, synthesis and analysis of data for three months, the researcher found that there is a wide gap between strategy formulation and implementation which is Achilles heel in many businesses.

RESEARCH FINDINGS AND DISCUSSION

8. Correlation Analysis

The study assessed the correlations among the predictor variables using the pair-wise correlation matrix. The correlation analysis helped in determining whether multicollinearity problem existed in the data before a regression model was run. The result in Table 4.2 shows the correlation matrix of Pearson correlation coefficients. The starred values indicate significance at 5% level of significance.

Table 2: Correlation

		Inflation rate	Interest rate	Unemployment rate	Exchange rate	ROE
Inflation rate	Pearson Correlation	1				
	Sig. (2-tailed)					
Interest rate	Pearson Correlation	-.492*	1			
	Sig. (2-tailed)	0.000				
Unemployment rate	Pearson Correlation	.158*	-.295*	1		
	Sig. (2-tailed)	0.016	0.000			
Exchange rate	Pearson Correlation	0.102	0.124	-.693*	1	
	Sig. (2-tailed)	0.122	0.06	0.000		
ROE	Pearson	0.085	-.131*	-.357*	-.581*	1

	Correlation				
	Sig. (2-tailed)	0.201	0.047	0.000	0.000

* Correlation is significant at the 0.05 level (2-tailed).

The results indicated that the association between inflation rate and financial performance of commercial banks is positive and insignificant. This implied that an increase in inflation rate is associated with an improvement in financial performance of commercial banks.

The findings also indicated that real interest rate is negatively and significantly associated with financial performance of commercial banks. This implied that an increase in the real interest rate is associated with poor performance of commercial banks.

Unemployment rate is negatively and significantly associated with the financial performance of commercial banks in Nigeria. The findings implied that an increase in the unemployment rate is associated with poor performance of commercial banks.

The performance of commercial banks in Nigeria is negatively and significantly associated with exchange rate. An increase in the exchange rate of Naira to US dollar is negatively associated with performance of commercial banks in Nigeria. The results also indicated absence of multicollinearity among the predictor variables hence the study went ahead to conduct a regression analysis.

9. Trend Analysis of ROE

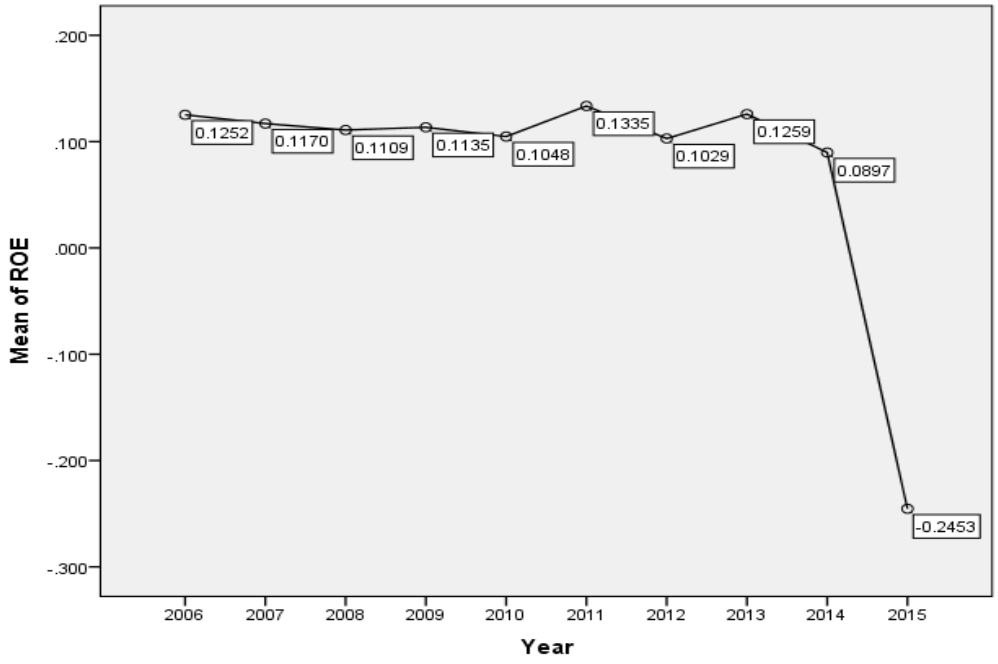


Figure 2: Trend Analysis of ROE

The study findings from figure 2, indicated that the yearly mean ROE for all the commercial banks in Nigeria had unsteady trends. From the year 2006 to 2010, the mean ROE was unsteady before recording the highest value in the study period in the year 2011. The lowest mean ROE recorded in the study period was in the year 2015.

10. Trend Analysis of Inflation rate

The trend analysis indicated that inflation rate of Nigeria between the year 2006 and 2015 had unsteady increasing and decreasing trends. The year 2007 had the lowest value while the highest percentage of inflation rate recorded was in the year 2010.

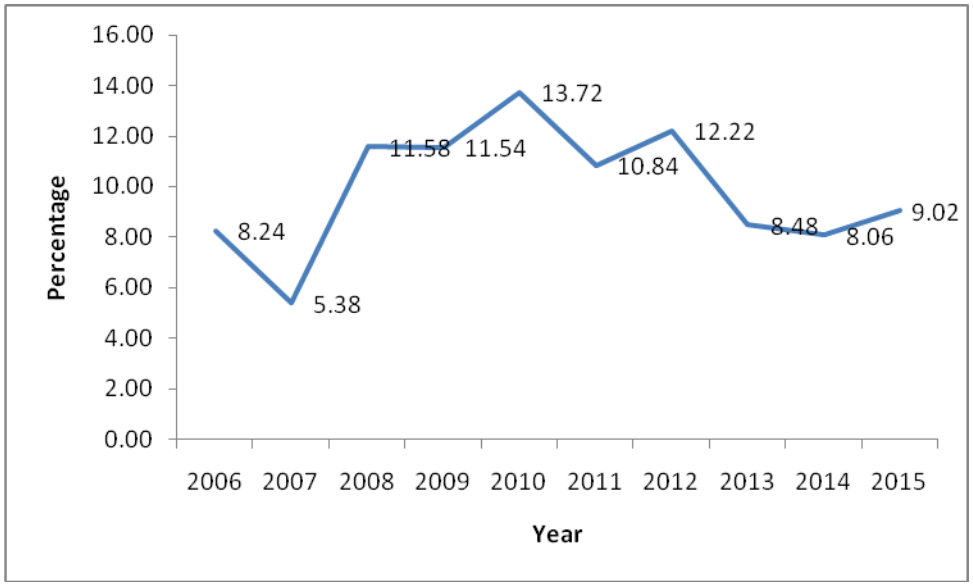


Figure 3 : Trend Analysis of inflation rate

11. Trend Analysis of Interest rate

Interest rate had steady increasing and decreasing trends over the study period. The year 2010 had the lowest real interest rate value. The real interest rate percentage then started rising steadily from the year 2011.

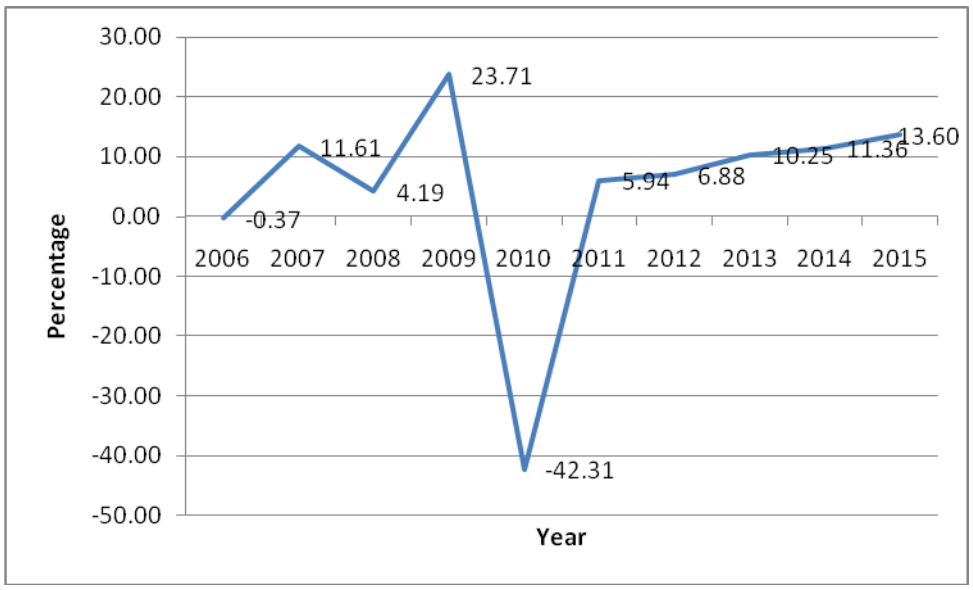


Figure 4: Trend Analysis of interest rate

12. Trend Analysis of Unemployment rate

The unemployment rate as a percentage of the total labour force in Nigeria had steady rate of 7.6 since the year 2006 up to the year 2011 before decreasing to 7.5%. The rate of 7.5% remained constant up to the year 2015. There was a small variation in the unemployment rate.

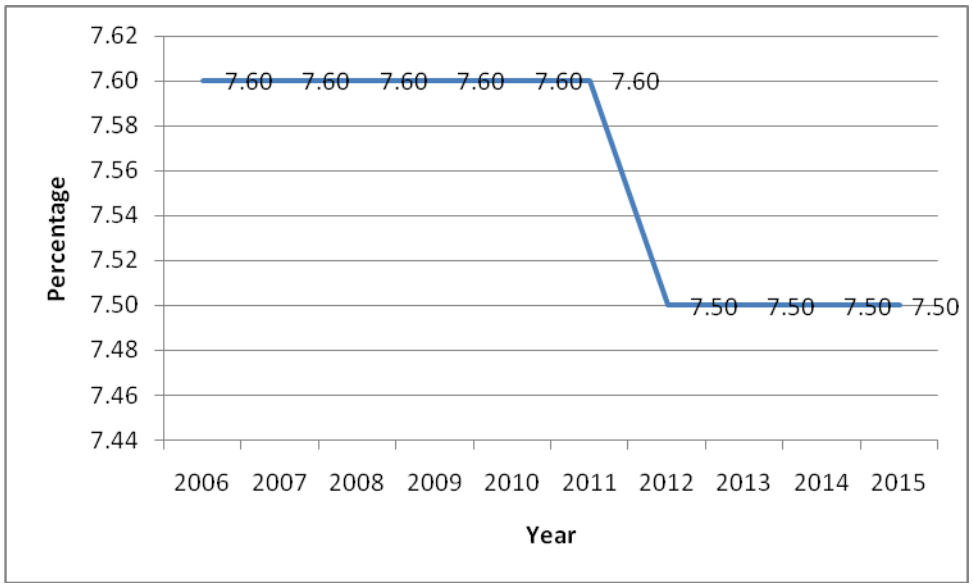


Figure 5: Trend Analysis of unemployment rate

13. Trend Analysis of Exchange rate

The trends of exchange rate of Naira to US Dollars was steadily increasing and decreasing. From the year 2006 to 2009, the rate was unsteady before indicating steady increasing and decreasing trends from the year 2009 to the year 2014. The year 2015 had the highest value of exchange rate of Naira to US Dollars.

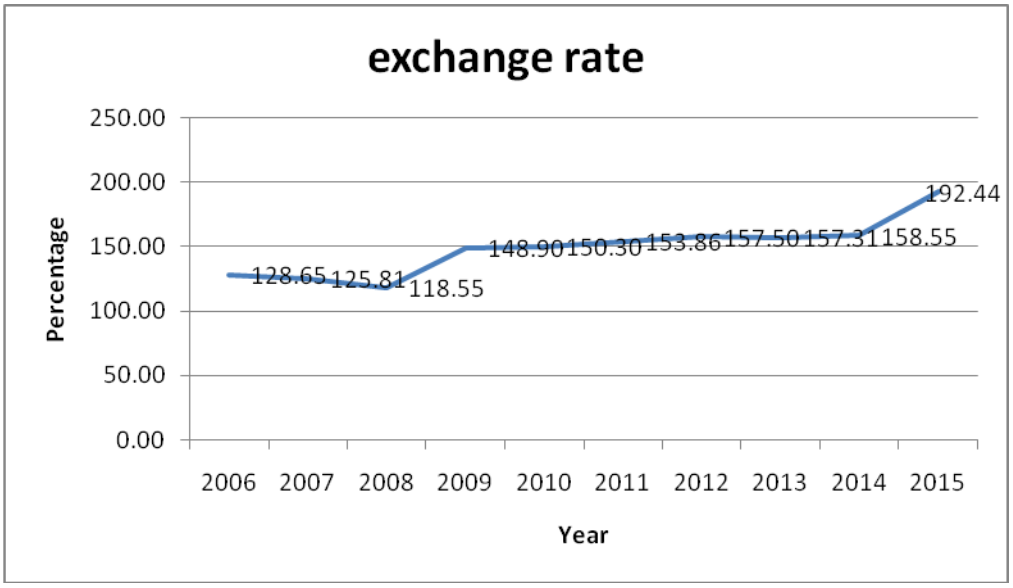


Figure 6: Trend Analysis of exchange rate

14. Regression Analysis

The study used Panel data regression model to establish the relationship between the predictor and the independent variables given by:

$$Y_{it} = \alpha_i + \beta_1 X'_{1t} + \beta_2 X'_{2t} + \beta_3 X'_{3t} + \beta_4 X'_{4t} + \varepsilon_{it}$$

Using the Panel Least Squares method, both the Fixed Effects and the Random Effects models were estimated. The data sample comprised of 23 cross-sections (banks) spread over a ten-year period (2006 – 2015), hence 230 observations. The test for correlated random effects (Hausman Test) was then applied to determine which of the two models was applicable.

The summary results for the Fixed Effects Panel Model are as presented in Table 3 while details are given in Annex 1.

Table 3: The summary results for the Fixed Effects Panel Model

Dependent Variable: ROE

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.713677	1.627209	2.896786	0.0042
INFLRATE	0.010803	0.003448	3.133117	0.0020
REALRATE	-3.14E-05	0.000481	-0.065340	0.9480
UNEMPRATE	-0.528998	0.208945	-2.531757	0.0121
EXCHRATE	-0.004984	0.000501	-9.957837	0.0000

R-squared	0.494723	Adjusted R-squared	0.430008
Log likelihood	210.6802	Durbin-Watson stat	2.026930
F-statistic	7.644616	Prob(F-statistic)	0.000000

Table 4: The summary results for the Random Effects Panel Model

Dependent Variable: ROE

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.713677	1.627226	2.896756	0.0041
INFLRATE	0.010803	0.003448	3.133117	0.0020
REALRATE	-3.14E-05	0.000481	-0.065340	0.9480
UNEMPRATE	-0.528998	0.208945	-2.531757	0.0120
EXCHRATE	-0.004984	0.000501	-9.957837	0.0000

R-squared	0.401019	Adjusted R-squared	0.390370
F-statistic	37.65946	Prob(F-statistic)	0.000000
Durbin-Watson stat	1.824979		

15. Hausman Test

In order to determine which of the two models should be preferred (i.e. whether the Fixed Effects or the Random Effects Model), the following hypothesis was investigated:

H_0: Random Effects (RE) Model

H_1: Fixed Effects (FE) Model

Results of the Test for Correlated Random Effects (Hausman Test):

Table 5:Correlated Random Effects-Hausman Test[*Test cross-section random effects*]

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.

Cross-section random	0.000000	4	1.0000

Since the Chi-Sq. Statistic = 0.000 and P = 1.000 > 0.05, we fail to reject the H_0: Random Effects (RE) and conclude that the preferred model is the Random Effects Model.

Diagnostic Tests for the Random Effects Model

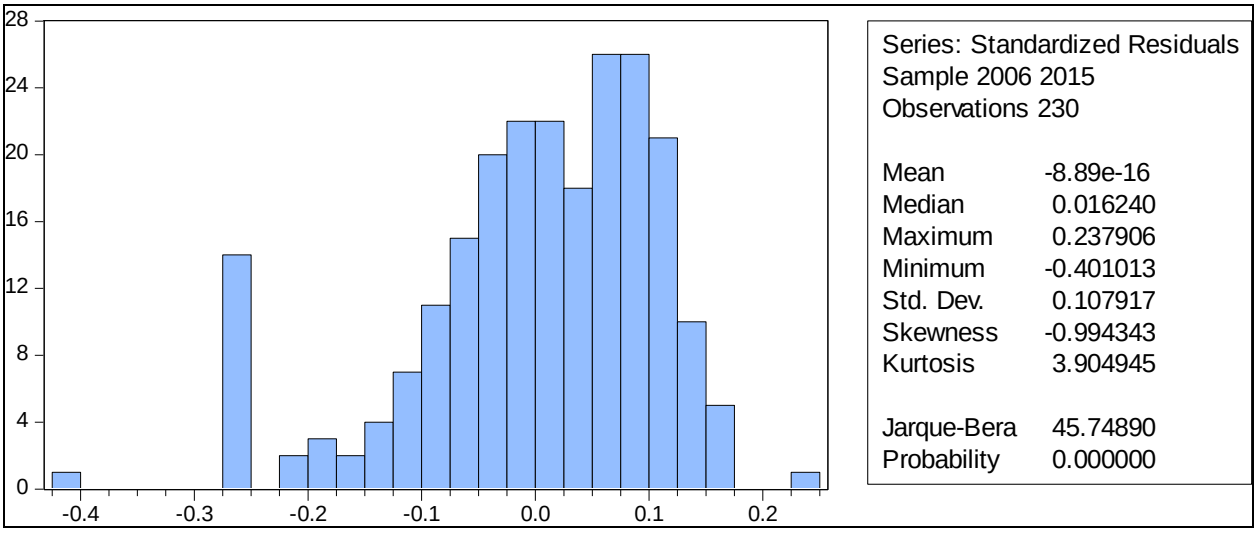
Jarque Bera Residual Normality Test:

Setting the hypothesis below:

H_0: Residuals are normally distributed

H_1: Residuals are not normally distributed

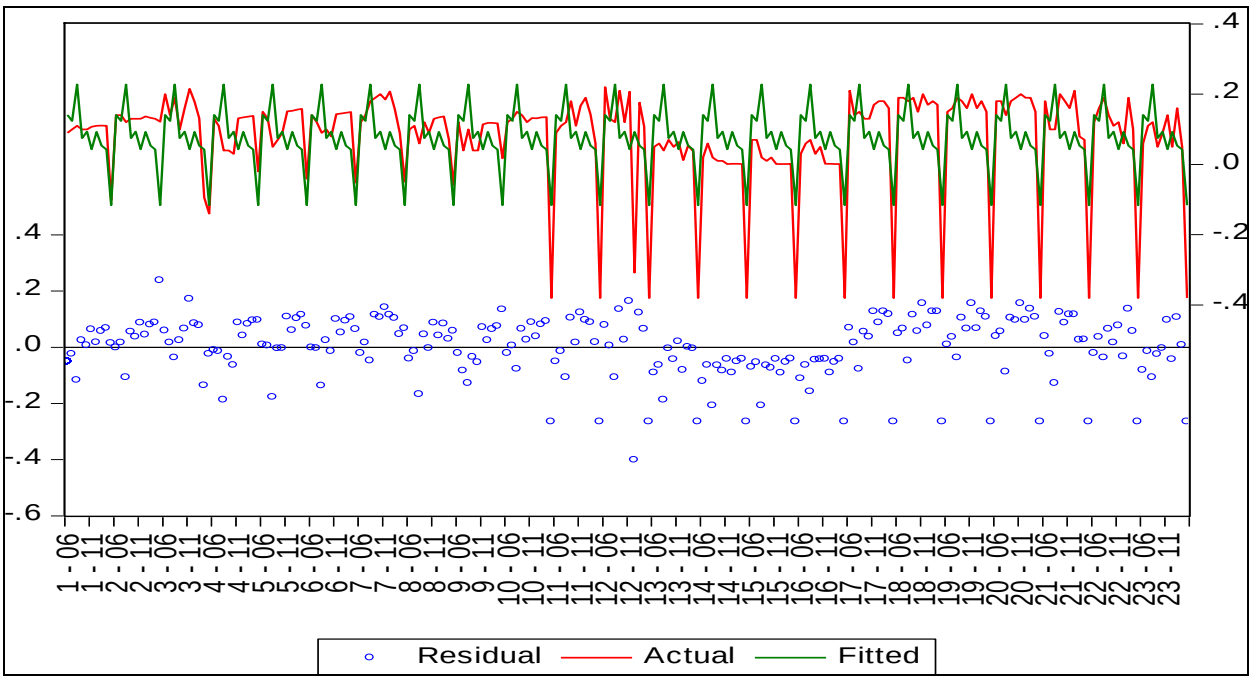
Figure 7: Histogram for Normality Test



From the results, Jarque-Bera Statistic = 45.74890 and computed P-value P = 0.000000 < 0.05

We reject H_0: Residuals are normally distributed and conclude that the residuals are not Normally Distributed. This is also revealed in the Actual Vs Fitted residual graph below:

Figure 8: Actual Vs Fitted residual graph



This implies presence of Heteroscedasticity. After correcting for presence of heteroscedasticity using the "Coefficient Covariance Method" based on the White-cross section (see **Annex 2**); the following robust results were obtained:

Table 6: Summary results for the RE Panel Model (Corrected for Heteroscedasticity)

Dependent Variable: ROE

Method: Panel EGLS (Cross-section weights)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.627652	1.393595	3.320656	0.0011
INFLRATE	0.009937	0.002953	3.365170	0.0009
REALRATE	-4.96E-05	0.000412	-0.120380	0.9043
UNEMPRATE	-0.529045	0.178947	-2.956428	0.0035
EXCHRATE	-0.004347	0.000429	-10.14093	0.0000

R-squared	0.531225	Adjusted R-squared	0.471185
F-statistic	8.847824	Prob(F-statistic)	0.000000
Durbin-Watson stat	1.949662		

The variables INFLRATE, UNEMPRATE and EXCHRATE and statistically significant at 5% significance level.

Interpreting the Equation:

ROE = 4.63 + 0.0099 INFLRATE – 0.00005 REALRATE - 0.53 UNEMPRATE - 0.004 EXCHRATE + ε_{it}

A one unit increase in inflation rate will lead to 0.0099 units increase in return on equity; a one unit increase in real rate will lead to 0.00005 units decrease in return on equity. Also, one unit increase in unemployment rate will lead to 0.53 units decrease in return on equity and a one unit increase in exchange rate will lead to 0.004 units decrease in return on equity. The R –squared is 0.531225 and the adjusted R- squared is 0.471185

Table 7: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.612	0.375	0.364	0.108899

The study findings presented in Table 7 indicated that the correlation of the joint predictor variables (Inflation, exchange rate, unemployment rate and interest rate) with ROE of commercial banks in the study period is positive as revealed by a Pearson coefficient value (R) of 0.612. The findings also indicated that the predictor variables (Inflation, exchange rate, unemployment rate and interest rate) jointly explain up to 37.5% of the changes in ROE of commercial banks and the remaining percentage, 62.5%, is explained by other variables not studied by the current study. The study further established the model fitness. The results for the model fitness are as presented in Table 8.

Table 8: Model Fitness

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.598	4	0.4	33.697	.000
Residual	2.668	225	0.012		
Total	4.267	229			

The F calculated, 33.697, is significant at 5% level of significance as indicated by a p-value of 0.00 which is significant at 5% level of significance implying that the model fit well. The study lastly established the model coefficients. The results are presented in Table 9 below.

Indicator	B	Std. Error	t	Sig.
(Constant)	4.681	1.718	2.725	0.007
Inflation rate	0.011	0.004	2.975	0.003
Interest rate	-0.001	0.001	-0.053	0.958
Unemployment rate	-0.525	0.221	-2.38	0.018
Exchange rate	-0.005	0.001	-9.416	0.000

The findings presented in Table 9 indicate that inflation rate is positively and significantly related to ROE as shown by a beta coefficient of 0.011 and P-value of 0.003. These findings imply that a unit increase in inflation rate leads to a unit improvement in ROE by 0.011 units. The findings are consistent with the findings of a study by Kosmidou et al. (2006) as well as Athanasoglou *et. al.* (2005) which indicated that macroeconomic factors like inflation have a positive impact on bank performance. The findings are however not consistent with the findings of a study by Sufian et al. (2009) which revealed that inflation has a negative relationship with banks profitability.

Further results indicated that the relationship between interest rate and ROE of commercial banks is negative and insignificant as indicated by beta coefficient of -0.001 and p-value of 0.958. The findings imply that an increase in real interest rate leads to poor performance of commercial banks. The study findings are consistent with the findings of a study by Ofoegbu and Iyewumi (2013) which indicated that the effect of interest rate on financial performance of commercial banks in Nigeria is insignificant. The findings also agreed with the findings of a study by Anna et al., (2008) which found that only the rate of inflation reveals a significant relationship with banks' performance while there was no significant relationship between real interest rate and financial performance of Macao commercial banks.

The relationship between unemployment rate and financial performance of commercial banks is negative and significant as indicated by a beta value of -0.525 and p-value of 0.018. This implies that an increase in unemployment rate leads to poor performance of commercial banks. The study findings agreed with the findings of a study by Sudin (2004) which indicated that unemployment rate and money supply play a major role in influencing the profitability of Islamic banks in Jordan. Furthermore, the findings agreed with Samhan & AL-Khatib (2015) who indicated that there is significance level and negative relationship between ROA and unemployment rate.

The study findings also agreed with the findings of a study by Ifeacho (2014) which indicated that except for interest rates (in the ROA model), unemployment rate (in the ROA model), and the rate of inflation (in the ROE model), the rest of the macroeconomic variables are statistically insignificant.

Exchange rate is negatively and significantly related to financial performance of commercial banks. This implied that an increase in the exchange rate of Naira to US dollars leads to a reduction in ROE of commercial banks in Nigeria. These findings are not consistent with the findings of a study by Sing and Chaudhary (2009) conducted in India and indicated a positive relationship between exchange rate and financial performance of commercial banks. The findings are also inconsistent with the findings of a study by Tan and Floros (2012) who examined the determinants of bank profitability in China for the period of 2003-2009 and indicated a positive relationship between bank profitability, cost efficiency, banking sector development, stock market development, exchange rate and inflation in China.

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

16. Summary of Findings

Inflation rate and financial performance of commercial banks in Nigeria

The first objective of the study was to investigate the effect of inflation rate on financial performance of commercial banks in Nigeria. The results indicate that the association between inflation rate and financial performance of commercial banks is positive and insignificant. This implies that an increase in inflation rate is associated with an improvement in financial performance of commercial banks.

The study sought to test the null hypothesis that there is no statistically significant relationship between inflation rate and financial performance of commercial banks in Nigeria. The regression results indicated that the relationship between inflation rate and ROE was positive and significant implying that an increase in inflation rate leads to an increase in ROE. The null hypothesis was rejected hence there is a significant relationship between inflation rate and financial performance of commercial banks in Nigeria.

Interest rate and financial performance of commercial banks in Nigeria

The second objective of the study was to establish the effect of interest rate on financial performance of commercial banks in Nigeria. The findings indicated that real interest rate is negatively and significantly associated with financial performance of commercial banks. This implies that an increase in the real interest rate is associated with poor performance of commercial banks.

The study sought to test the null hypothesis that there is no statistically significant relationship between interest rate and financial performance of commercial banks in Nigeria. The regression results indicated that the relationship between interest rate and ROE was negative but not

significant implying that an increase in interest rate leads to a decrease in ROE. The null hypothesis was not rejected hence there is no statistically significant relationship between interest rate and financial performance of commercial banks in Nigeria.

Unemployment rate and financial performance of commercial banks in Nigeria

The third objective of the study was to establish the effect of unemployment rate on financial performance of commercial banks in Nigeria. The findings indicated that unemployment rate is negatively and significantly associated with the financial performance of commercial banks in Nigeria. The findings imply that an increase in the unemployment rate is associated with poor performance of commercial banks.

The study sought to test the null hypothesis that there is no statistically significant relationship between unemployment rate and financial performance of commercial banks in Nigeria. The regression results revealed that the relationship between unemployment rate and ROE is negative and significant implying that an increase in unemployment rate leads to poor performance of commercial banks in Nigeria. The null hypothesis was rejected hence there is a statistically significant relationship between unemployment rate and financial performance of commercial banks in Nigeria.

Exchange rate and financial performance of commercial banks in Nigeria

The fourth objective of the study was to examine the effect of exchange rate on financial performance of commercial banks in Nigeria. The study findings indicated that the performance of commercial banks in Nigeria is negatively and significantly associated with exchange rate. An increase in the exchange rate of Naira to US dollar is negatively associated with performance of commercial banks in Nigeria.

The study sought to test the null hypothesis that there is no statistically significant relationship between exchange rate and financial performance of commercial banks in Nigeria. The regression results indicated that the relationship between exchange rate and ROE was negative and significant implying that an increase in exchange rate leads to decrease in ROE. The null hypothesis was rejected hence there is a significant relationship between exchange rate and performance of commercial banks in Nigeria.

17. Conclusions

Based on the study findings, the study concluded that the association between unemployment rate and ROE is negative and significant. Furthermore, the study concluded that there is a positive but insignificant association between inflation rate and ROE. Another conclusion on inflation rate is that inflation rate has a statistically insignificant positive effect on financial performance of commercial banks in Nigeria. The study also concluded that exchange rate is negatively and significantly associated with ROE. Exchange rate and interest rate have a significant effect on financial performance of commercial banks. In general, the study concludes that unemployment rate, exchange rate and real interest rate have a significant relationship with

financial performance of commercial banks in Nigeria while inflation has an insignificant relationship with financial performance.

18. Recommendations

Based on the conclusions, the study recommends that commercial banks operating in Nigeria should effect strategies that aim to adjust their lending rates and financial activities when the rate of real interest rate set by the Central Bank of Nigeria increases since real interest rate has a negative effect on commercial banks financial performance. The study also recommends that the commercial banks should be aware of the changes in exchange rate and interest rate and adjust their rates accordingly since an increase in interest rate worsens the performance and an increase in exchange rate betters the financial performance.

19. Areas for Further Research

The purpose of the study was to establish the effect of Macroeconomic factors on financial performance of Commercial Banks in Nigeria. A study can be conducted to establish the effect of both internal and macroeconomic factors on financial performance of Commercial Banks in Nigeria. This study used ROE as a measure of financial performance; further studies can consider other measures of financial performance for instance ROA, net income and Tobin Q. This will help to bring more diversity in comparing the results. Research can also be carried out to identify other factors apart from those investigated in this study and which have not been researched on. The factors investigated in this study explained 37.5% of the changes in ROE of commercial banks and the remaining percentage, 62.5%, of the changes in financial performance of commercial banks is explained by other factors not included in this study. Therefore, further research should be conducted to investigate the other factors that explain 67.3% of changes in financial performance of commercial banks. Such factors can be internal factors like governance and interest rate spread.

REFERENCES

Abebe, T. (2014). Determinants of Financial Performance: An Empirical Study on Ethiopian Commercial Banks (Doctoral dissertation, Jimma University).

Adekunle. "Jaiz Bank spends N100m on IDP". Vanguard. Retrieved 29 November 2015.

Afanasieff , T., Lhacer , P., & Nakane, M. (2002). The determinants of bank interest spreads in Brazil. Banco Central di Brazil Working Papers.

Aguinis, Herman. 2009. 2nd Edition. Performance Management.Dorling Kindersley India Pvt. Ltd.

Agustini, M. (2011). Factors influencing the profitability of listed Indonesian commercial banks before and during financial global crisis. Factors Influencing the Profitability of Listed Indonesian Commercial Banks Before and During Financial Global Crisis (June 22, 2011).

Ajayi, M. (2005). Banking Sector Reforms and Bank Consolidation: Conceptual framework, Bullion, Vol. 29, No. 2.

Albertazzi, U. and Gambacorta, L. (2009), Bank Profitability and the Business Cycle, Journal of Financial Stability, 5, 393–409.

Allen, F., Carletti, E., Cull, R., Qian, J., Senbet, L. and Valenzuela, P. (2012). Resolving the African Financial Development Gap: Cross-Country Comparisons and a Within-Country Study of Kenya, Forthcoming in NBER Volume on African Economic Successes, Available online at cadmus.eui.eu, 05/05/2013.

Alper, D. and Anbar, A. (2011). Bank Specific and Macroeconomic Determinants of Commercial bank profitability: Empirical Evidence from Turkey. Business and Economics Research Journal, 2: 2,139-152.

Al-Tamimi, H., Hassan, A., (2010) Factors Influencing Performance of the UAE Islamic and Conventional National Banks. . Department of Accounting, Finance and Economics, College of Business Administration, University of Sharjah.

Anna P.I., V and Hoi Si, Ch (2008). 'Determinants of Bank Profitability in Macao', Faculty of Business Administration, University of Macau.

Aremu, M. A., Ekpo, I. C. And Mustapha, A. M. (2013) Determinants of Banks' Profitability in a Developing Economy: Evidence from Nigerian Banking Industry, Interdisciplinary Journal Of Contemporary Research In Business, 4(9): 155-181.

Arpa ,M.,I Giulin ,M .I and F.Pauer (2001) The influence of Macroeconomic devel Austrian banks :Implications for banking supervisors .BIS papers 1 ,91-116

Athanasoglou, P. Brissimis, S and Delis, M. (2005). Bank-Specific, Industry-Specific and Macroeconomic Determinants of Bank Profitability. Working Paper,25.

Belayneh, H (2011).' Determinants of Commercial Banks profitability of Ethiopian Commercial banks', Msc thesis, School of Business and Public Administration, Ababa University.

Bernanke, B.S .,Gertler ,M.(1989) .Agency costs, net worth, and business fluctuations .The American Economic Review . 79, 14-31

Bikker, A., & Hu, H., (2002).Cyclical Patterns in Profits, Provisioning and Lending of Banks and Procyclicality of the New Basel Capital Requirements. BNL Quarterly Review, 221, 143-175.

Bourke, P. (1989), "Concentration and Other Determinants of Bank Profitability in Europe, North America and Australia," Journal of Banking and Finance, Vol. 13, 65-79

British Bankers Association, (2004), The Banking Sector's Contribution to the Economy

Buyinza, F., (2010). Determinants of Profitability of Commercial Banks in Sub-Sahara Africa Countries. Department of Economics, Johanassen Keppler University, Linz – Austria.

Carton, R. (2004). Measuring Organizational Performance: An Exploratory Study. A Dissertation Submitted to the Graduate Faculty of the University of Georgia in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy, Athens, Georgia.

Claassen, M. J., Van Weele, A. J. & Van Raaij, E. M. (2008). Performance outcomes and success factors of vendor managed inventory (VMI). Supply Chain Management: An International Journal, 13(6), 406-414.

Cooper, D. R., & Schindler, P. S. (2007). Business Research Methods (8th edition). USA: McGraw-Hill.

Dietrich, A and Wanzenried, G 2009, 'What Determines the Profitability of Commercial Banks ?' New Evidence from Switzerland.

Dietrich, A. and Wanzenried, G. (2009). What Determines the Profitability of Commercial Banks? New Evidence from Switzerland. Lucerne University of Applied Sciences.SSRN.

Easterly, W., Islam, R., & Stiglitz, J., (1999). Shaken and stirred, explaining growth volatility. Annual Bank Conference on Development Economics, The World Bank, April

Ezra, M (2013).'Determinants of Commercial Bank Profitability in Sub-Saharan Africa', International Journal of Economics and Finance,vol.5.

Flamini, V., McDonald, C., & Schumacher, L. (2009). The Determinants of Commercial Bank Profitability in Sub-Saharan Africa. IMF WP/09/15, 3-30.

Friedman, M., (1963). Inflation, Causes and Consequences. Bombay: Asia Publishing House

Gall, M. D. Gall. JP, & Borg, WR (2007). Educational research: An introduction.

Gargouri, I. (2013). Efficiency of Tunisian Commercial Banks According to the Intermediation Approach, Canadian Center of Science and Education, International Journal of Economics and Finance, 5 (5): 190-203.

Garza-Garcia, J. G. (2011). Determinants of Bank Performance in Mexico: Efficiency or Market Power, Centre for Global Finance, Working Paper Series No 03, Bristol Business School, University of the West of England, United Kingdom.

Gavin, M. and Hausmann, R. (1996), "The Roots of Banking Crises: The Macroeconomic Context," Inter-American Development Bank Working Paper No. 318.

Ghazouani, I and Moussa, S 2013, 'Explanatory Factors of Bank performance', Evidence from Tunisia, International Journal of Economics, Finance and Management, Vol2, No.1

Gul, S. Irshad,F. and Zaman,K.(2011). Factors Affecting Bank Profitability in Pakistan. The Romanian Economic Journal, 14:39, 61-87.

Harberger, C., (1963). The Dynamics of Inflation in Chile. In Measurement of Economics: Studies in Economics and Econometrics in Memory of Yehunda Grunfield, edited by C. F. Christ. Stanford, Calif.: Stanford University Press.

Haron, Sudin. (2004). "Determinants of Islamic Bank Profitability", Global Journal of Finance and Economics. USA, Vol. 1, No1.

Hesse, H., & Poghosyan, T. (2009). Oil Prices and Bank Profitability: Evidence from Major Oil-Exporting Countries in the Middle East and North Africa. IMF Working Papers, 10/09

Hilbers P., Lei, Q. and Zacho, L. (2001), "Real Estate Market Developments and Financial Sector Soundness," IMF Working Papers, No. 129.

Ifeacho,C. & Ngalawa,N. (2014). "Performance of the South African Banking Sector Since 1994" Journal of Applies Business Research Volume 30 Number 4.

Kamau, A. and Were, M. (2013). What Drives Banking Sector Performance in Kenya?. Global Business and Economics Research Journal, 2(4): 45-59.

Kashyap, A. K. and Stein, J. C. (1995): The Impact of Monetary Policy on Bank Balance Sheets. Carnegie-Rochester Conference Series on Public Policy, 42:151–195.

Keovongvichith, P. (2012). An Analysis of the Recent Financial Performance of the Laotian Banking Sector during 2005-2010, International Journal of Economics and Finance, 4 (4): 148-162.

Khrawish, Husni; Siam, Walid; and Khrawish, Ali. (2011). "Determinants of Islamic Bank profitability: Evidence from Jordan". Middle Eastern finance and economics. Euro Journals publishing.Inc.

Kilian, L. (2009). Are the Responses of the U.S. Economy Asymmetric in Energy Price Increases and Decreases? Quantitative Economics, 2.3, 419-453

Kiruri, R. M. (2013). The Effects of Ownership Structure on Bank Profitability in Kenya, European Journal of Management Sciences and Economics, 1(2): 116-127.

Koontz, H. & Donnell, C. (2003). Introduction to Management. McGraw-Hill Inc., New York.

Kosmidou, K and Zopounidis, C (2006). 'Measurement of Bank Performance in Greece', South-Eastern Europe Journal of Economics 1, pp 79-95.

Kosmidou, K., Pasiouras, F., Doumpos, M., & Zopoun. (2006). A Multivariate analysis of the financial characteristics of foreign and domestic banks in the UK. OMEGA. The International Journal of Management Science, 34 (2), 189–195.

Levine, R. (1998). The legal environment, banks, and long run economic growth. Journal of Money, Credit and Banking 30, 596–613.

Maslakovic M., McKenzie D., (2002), City Business Series-Banking, International Financial Services London.

Mboka, T., (2013). Effects of macro-economic variables on nonperforming loans of commercial banks in Kenya. MBA Project, University of Nairobi

Mishra, P.K. and B.B. Pradhan (2008): Financial Innovation and Effectiveness of Monetary Policy. Available at http://ssrn.com/abstract=1262657.

Mogboyin, O., Asaolu, T. O. & Ajilore, O. T. (2012). Bank Consolidation Programme and Lending Performance in Nigerian Banking System: An Empirical Analysis with Panel data, The International Journal of Applied Economics and Finance, 6(3): 100-108.

Mohana, K and Tekeste, B (2012). 'Determinants of profitability of Commercial Banks in Developing country', Evidence from Ethiopia, International Journal of Accounting and Finance, Vol.2, Issue 3.

Mugenda, O. Mugenda (2003). Research Methods: Quantitative and.

Naceur,B.S.(2003).The determinants of the Tunisian banking industry profitability:panel evidence.Paper presented at the economic research forum (ERF) 10th Annual Conference,16-18 December.Marrakesh-Morocco.

Ofoegbu, O. I. & Iyewumi, A. T. (2013). Bank Consolidation and Deregulation Effects on the Level of Competition in the Nigerian Banking Industry, International Journal of Economic Policies and Theories, 3(1): 37-49.

Ongore, V. and Kusa, G. (2013). Determinants of Financial performance of Commercial Banks in Kenya. International Journal of Economics and Financial Issues, 3 (1): 237-252.

Ongore, V. O., and Kusa, G. B. (2013). Determinants of Financial Performance of Commercial Banks in Kenya, International Journal of Economics and Financial Issues, 3 (1): 237-252.

Otieno, M. O. (2013). The determinants of commercial banks profitability in Kenya (1983-2012) (Doctoral dissertation, University of Nairobi).

Pearce, J.A. and Robinson, R.B. (1994), "Strategic Management: Formulation, Implementation,and Control". Irwing. Adapted by Diego Medina. Las Palmas de Gran Canaria University.

Rose, P. S., and Hudgins, S. C. (2005). Bank Management & Financial Service.New York: McGraw Hill.

Samhan, H. M., & AL-Khatib, M. A. Y. (2015). Determinants of Financial Performance of Jordan Islamic Bank.

Sayedi, S., (2013). Bank specific, industrial specific and macroeconomic determinants of banks profitability in Nigeria. Journal of Finance

Schwaiger, M.S.,Liebig ,D.,(2008) .Determinants Of Bank Interest Margins in Central and Eastern Europe.Financial Stability Report 14,68-87

Simpasa, A. M. (2013). Competition and Market Structure in the Zambian Banking Sector, African Development Bank, Working Paper No. 168.

Sing, R. and Chaudhary, S. (2009). Profitability Determinants of Banks in India. International Journal of Global Business, 2: 1,163-180.

Sufian, F and Shah, M (2009). 'Determinants of Bank Profitability in a Developing Economy', Empirical Evidence from Bangladesh, Journal of Business Economics and Management.

Sufian, F. (2011). Profitability of the Korean Banking Sector: Panel Evidence on Bank-Specific and Macroeconomic Determinants. Journal of Economics and Management, 7: 1, 43-72.

Sufian, F. and Habibullah, M.S. (2010), Does Economic Freedom Fosters Banks' Performance?: Panel Evidence From Malaysia, Journal of Contemporary Accounting and Economics, 6, 77-91.

Tan, Y and Floros, C.h. (2012). 'Bank profitability and Inflation', The case of China, Journal of Economic Studies, vol.39 No.6, pp.675-696.

Tan, Y and Floros, Ch 2012, 'Bank profitability and Inflation', The case of China, Journal of Economic Studies, vol.39 No.6, pp.675-696.

Toni Uhomoibhi, (2008), Determinants of Bank Profitability: Macroeconomic Evidence from Nigeria, Deakin University, (working paper).

Trehan, R. (2008), Market-Based Finance Versus Bank-based Finance, CCF Media.

Uchechukwu Okoroji. "Nigeria's Banking Reform above the Curve". This Day Live. Retrieved 29 November 2015.

Were, M., Kamau, A., Sichei, M., Kiptui, M., (2013). A theoretical framework for Kenya's central bank macro econometric model. Africa growth initiative working paper

Yuqi, L. (2008). Determinants of Banks' Profitability and its Implication on Risk Management Practices: Panel Evidence from the UK in the period 1999 – 2006. University of Nottingham, UK.

Yusuf, Y., Gunasekaran, A., & Dan, G. (2007). Implementation of TQM in China and organisation performance: an empirical investigation. Total quality management, 18(5), 509-530.