MACROECONOMIC FACTORS AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS LISTED ON THE NAIROBI SECURITIES EXCHANGE, KENYA

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Abstract: **This study aimed at contributing to research in determining to what extent macroeconomic factors influence financial performance banks in Kenya. A census of eleven listed commercial banks in Kenya that were in operation from 2012 to 2017, was carried out to gather information on the financial performance of banks. The study concluded that the effect of inflation on financial performance is statistically insignificant. However, with regards to the effect of interest rate on financial performance of commercial banks, the study concluded that interest rate positively and significantly affects the financial performance of commercial banks listed on the NSE, Kenya. The study also concluded that there exist an inverse and significant effect of exchange rate on financial performance of commercial banks listed on the NSE, Kenya. Lastly, on the moderating effect the bank size on the relationship between macroeconomic factors and financial performance of commercial Banks listed at the NSE, Kenya. The study concluded that bank size has a positive and significant moderating effect on the relationship between interest rate and financial performance of commercial banks listed on the NSE, Kenya. Also, the study concluded that bank size has a negative and significant moderating effect on the relationship between exchange rate and financial performance of commercial banks listed on the NSE, Kenya. The study recommends that CBK should manage interest rates adequately in order to avoid its fluctuations as this will hamper performance of banks. Since the study concluded that the effect of exchange rate on financial performance is negative but statistically significant, the study recommends that bank management consider the prevailing and anticipated exchange rates in the economy when making decisions.**

Keywords: **Inflation, interest rate, exchange rate, bank size, financial performance, commercial banks.**

1. BACKGROUND OF THE STUDY

Globally, financial Institutions contribute crucially to the role of economic development and growth. Financial institutions provide financial intermediation services where they engage in collecting and mobilizing resources for investors and businesses which enhance economic development (Were & Wambua, 2014). An efficient banking system is of utmost importance for adequate financial intermediation which brings about sustainable investments in the private sector investment. Importantly, these roles played by the banking sector is hinged on bank performance and as such, knowing the factors affecting bank performance is of high crucial to banks and of high importance in stabilizing the economy (Alper & Anbar, 2011).

The banking system stands as the most significant part of the financial system of countries. The role of capital provision, where banks channel funds to deficit economic units from surplus units cannot be over emphasized (Rasiah, 2010). Despite the past and ongoing reforms witnessed in Africa, the performance of banks has remained poor as they are not effective their financial intermediation roles. These poor performances experienced by banks have continued have resulted in high liquidity risk levels and loss of confidence by investors and customers in some cases. These are also seen in the high cost of financial intermediation charged by banks (Agade, 2014).

External factors are within bank operating environment which individually and sometimes collectively determine performance of the banks as they are mostly above their control (Ongore & Kusa, 2013). In a similar narration, Karkrah and Ameyaw (2010) opine that macroeconomic factors structure a greater part of the external factors that affect a business. The most frequent external factors that have been recognized includes exchange rates, GDP, unemployment, inflation among others. According to Njuguna (2013), macroeconomic (external) factors are grouped into three classes: those related to general external environment such as inflation and unemployment rate, those associated to the direction the economy is moving such as GDP and the factors in the financial market conditions such as interest rates, exchange rate, stock market returns.

1.1 Statement of the Problem

Profitability is highly crucial for the continuous existence of banks and also their wellbeing. Importantly, cash dividends and retained earnings are solely sourced from a bank's profitability. The ROE of commercial banks was reported to be 21.99% as at 2012 indicating a decline as compared to the 23.10% of 2011. Also, the decreasing trend of the ROE of banks in Kenya extended to 2013 all through to 2015 where the ROE was respectively at 20.94%, 20.88% to 17.39%. This has however brought about concern in every corner of the financial sector. This can be attributed to the fact that Kenya is a bank driven economy.

There are quite a few studies on macroeconomic factors and their effect on banking performance. In addition, available studies lack consensus on the subject matter as they are characterized by mixed findings. Furthermore, studies conducted on macroeconomic factors and bank performance of commercial banks did not consider bank size and its moderation role on the relationship between macroeconomic factors and financial performance of commercial banks. Bank size is an important internal factor for banks that captures economies and diseconomies of scale. In addressing the research gaps (contextual gap, conceptual gaps and knowledge gaps) the current investigation assessed the impact of macroeconomic factors on financial performance of commercial banks listed on the NSE, Kenya.

1.2 Specific Objectives

The following are the specific objectives of the research.

i. To determine the effect of inflation on financial performance of commercial banks listed on the Nairobi Securities Exchange, Kenya.

ii. To investigate the effect of interest rate on financial performance of commercial banks listed on the Nairobi Securities Exchange, Kenya.

iii. To establish the effect of exchange rate on financial performance of commercial banks listed on the Nairobi Securities Exchange, Kenya.

iv. To investigate the moderating effect of bank size on the relationship between macroeconomic factors and financial performance of commercial banks listed on the Nairobi Securities Exchange, Kenya.

2. THEORETICAL REVIEW

Deflation Theory was propounded by Fisher (1933), the theory view the decrease in general price levels to bring about depreciation in the net value of businesses and investments, which further lowers profitability, thereby triggering bankruptcies and other forms of business collapses. Therefore, interest rates which move hand in hand with price levels are characterized by various fluctuations which bring about loss of value of money. These fluctuations and volatility of profitability determinants as regarded as forces within the external (operating) environment and internal environment which exert influence on the degree of over indebtedness between creditors and debtors which ultimately result in default in loan repayment. This default in turn hampers on bank profitability and its financial performance at large. Higher inflation leads to higher profitability when it is well anticipated as interest rate is quickly adjusted and vice versa.

Interest rate Parity Theory was brought about by Keynes (1936). The theory is of the notion that the variations in the rate of interests between one nation's currency and that of its counterparts in other countries who trade across borders account for the fluctuations in the nominal rate of interest. The theory rests on the notion of the differences in interest rates of other economies and the local economy. Parity condition rests on the idea that the differences in interest rate for2 different currencies is accounted by a discount or premium for the forward rate of exchanges on the foreign currency whereby there is no trading activity as regarding selling and buying of currency in the market (Bhole & Dash, 2002).

Agency Theory was brought about by Jensen and Meckling (1976). The theory provides insight on the linkage existing within management/ CEOs of institutions and firm owners in this case shareholders of that institution (Mulwa, 2015). This theory opines that agency conflict exists. The managing team of an institution is often categorized as an agent contracted by the shareholders who are also referred to as the owners of the organization (Waweru, 2013). The managerial activities are based on the interests of the shareholders and the financial growth of the institution.

2.1 Empirical Review

2.2 1Inflation and Financial Performance

An empirical analysis was undertaken by Buyinza (2010) which sought to assess the profit rate of banks of Sub Sahara Africa countries. The study looked at profitability of 23 through the 1999 to 2006 period in Sub Sahara Africa countries. The study adopted panel data regression analysis and the results showed inflation to positively and significantly affect profitability of banks. However, Beyinza (2010) concentrated on Sub Sahara Africa banks which were more of a comparative study. Listed banks in Kenya will be the focus of this study as it will provide country specific result.

Also, Ajayi and Atanda (2012) did a research on monetary policy effects on banking performance for Nigeria. While focusing on the period 1980 to 2008 and with the use of Engle-granger two-step co-integration approach, the study provided evidence of inflation having a positive but insignificant influence on the performance of banks in Nigeria. Nigerian commercial banks was the focus of the study, However, such findings cannot be extended to Kenya. In line with this, Kenyan listed commercial banks will be the focus of this study.

Macharia (2013) carried out an empirical research on the global financial crisis and its impact on bank financial performance in Kenya. While focusing on banks that offer mortgage finance, findings showed that there exists a negative inflation effect on performance of Kenyan banks. Macharia (2013) sole focused on those banks that are engaged in mortgage services whereas this study will be on commercial banks listed on the NSE in Kenya for the period 2012 to 2017.

Kiganda (2014) also did a study focusing on macroeconomic factors and profitability of commercial banks in Kenya while Equity bank limited was the research focus. Yearly data was used in the study which covered the period 2008 to 2012. Multiple regression model was adopted for the study where the results indicate that inflation has an insignificant positive influence on the profitability of banks with emphasize on one bank that is Equity Bank Limited. This study was however focused on Equity Bank Limited and hence this cannot be extended to commercial banks in Kenya.

Kwakwa (2014) also carried out an enquiry on the significant determinants of Ghanaian banks performance. Looking at variables such as money supply, bank size and inflation, bank size as predicting variables and bank performance as criterion variable, findings showed inflation having an insignificant but positive impact on performance. However, considering the study by Kwakwa was on Ghana, the findings may not realistically be applied to the Kenyan context. Therefore, this study seeks to address this gap.

2.3 Interest Rate and Financial Performance

An investigation was done by Alper and Anbar (2011) on external determinants of profitability in Turkey covering the period 2002 to 2010. The bank profitability was looked at using ROA and ROE which are regressed on macroeconomic determinants. The findings of the study show that interest rates affects bank positively, thus implying that higher bank profitability is associated with high interest rates. However, Alper and Anbar (2011) focused on banks in Turkey. This study will centre on listed commercial banks in Kenya.

Macharia (2013) carried out an empirical research on the global financial crisis and its impact on bank financial performance in Kenya. While focusing on banks that offer mortgage finance, findings showed that there exists a negative relation of interest rates and performance of banks situated in Kenya. Macharia solely concentrated on banks offering mortgage services whereas this study will be concentrating on listed banks on the NSE in Kenya for the period 2012 to 2017.

2.4 Exchange Rate and Financial Performance

Desaro (2012) did a research on influence of macroeconomic variables on banks performance in Kenya. GDP growth rates, the money supply, inflation, exchange rates and the lending rate of the sampled commercial banks were considered. The study made use of quarterly data which was analyzed using Pooled Least Square Method. The study findings show that ROA was negatively correlated with exchange rate. However, the study was based on a census. This research will be on the listed commercial banks at the NSE, Kenya.

Macharia (2013) did an empirical research on the global financial crisis and its effect on bank financial performance in Kenya. While focusing on banks that offer mortgage finance, findings showed that there exists a negative effect of exchange rate on performance of banks in Kenya. Macharia (2013) sole focused on only banks offering mortgage services whereas the this research will be on banks listed on the NSE in Kenya for the period 2012 to 2017. Listed banks will be the focus of the current study.

3. RESEARCH METHODOLOGY

3.1 Research Design

A research design is a scheme, outline or plan that is used to generate answers to research problems (Orodho, 2003). The research will use causal research design. This is adopted in a study to determine the cause and effect relationships among variables, that is the independent and dependent variables. Thus, the appropriate research design in this case is causal design as it seeks to establish the influence of macroeconomic factors on performance of listed commercial banks in Kenya.

3.2 Target Population

Cooper and Schindler (2009) stated that a population refers to the total collection of elements about which a researcher wants to make some inferences. The study's target population consists of all listed commercial banks in Kenya from 2012 to 2017 period which are 11 in number. Therefore, the 11 commercial banks listed on the NSE and their published financial statements constitute the unit of analysis and unit of observation of the study respectively.

4. DATA ANALYSIS AND PRESENTATION

4.1 Pre and Post Estimation Tests

Various pre and Post estimation tests were carried out. The tests carried out were the test for stationarity, correlation test, multicollinearity test, autocorrelation test, normality test and the Hausman specification test.

4.2 Hausman test

A Hausman test was also done to find out on which model to use in carrying out a panel regression. The null hypothesis is that the preferred model is random effect while the alternative hypothesis is that the preferred model is the fixed effect model.

Table 4.1: Hausman test.

	── Coefficients ──			
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	Fixed	Random	Difference	S.E.
Inflation	.0033899	.0075989	-.004209	.0027803
InterestRate	.0029179	.0082245	-.0053066	.0035061
ExchageRates	-.003012	-.0038384	.0008264	.0005426
BankSize	-.0017857	.1461696	-.1479553	.1001603

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                 b = consistent under Ho and Ha; obtained from xtreg
         B = inconsistent under Ha, efficient under Ho; obtained from xtreg

   Test:  Ho:  difference in coefficients not systematic

           chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                   =         2.18
         Prob>chi2 =     0.7023
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Source (Study Data, 2019)

From the findings a p value of 0.7023 was obtained, which is more than 0.05. From this finding the null hypothesis was not rejected hence the study relied on the random effect model to carry out a panel regression.

4.3 Panel regression analysis

The panel regression was carried out based on three empirical models and the results presented below;

Table 4.2: Panel regression model without the moderating variable

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Random-effects GLS regression                    Number of obs      =       66
Group variable: bank                             Number of groups   =       11

R-sq: within  = 0.2432                           Obs per group: min =        6
      between = 0.3617                                          avg =      6.0
      overall = 0.3214                                          max =        6

                                                 Wald chi2 (4)      =    42.65
Corr(u_i,x) = 0 (assumed)                        Prob > chi2        =   0.0000
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ROE	Coef.	Std. Err.	Z	P>|z|	[95% Conf.	Interval]
Inflation	.0034407	.0044504	0.77	0.107	−.0016540	.0168518
Interest rate	.0029819	.0015137	1.97	0.049*	−.0033986	.0198476
Exchange rates	−.0030220	.0009741	−3.74	0.000*	−.0058485	−.0018284
_cons	−.4046265	.1643669	−1.94	0.052	−1.6221010	.0068506
Sigma_u	.03795630					
Sigma_e	.03454017					
rho	.54701695	(fraction of variance due to u_i)				

Source (Study Data, 2019)

Without the inclusion of the predictor variables, the ROE of the banks increase by 0.4046. This increase is significant as seen by the p value of 0.014. A unit increase in the country's inflation results to an increase in the ROE of banks by 0.0034 times. This increase is nonetheless insignificant as demonstrated by the p value obtained of 0.439. Secondly, a unit increase in the interest rates leads to a rise in the banks' ROE by 0.0029. The increase is significant since the p value obtained was 0.049. Lastly, there is a significant inverse relationship between the exchange rates and the ROE. From the findings, a unit increase in exchange rates results in a decrease in the ROE by 0.0030 times. The p vale is 0.002 which is significant. An overall R^2 of 0.3214 was obtained which implies in the absence of the moderating variable, the predictor variables explain 32.14 % of the change in the ROE of the banks that are listed in the NSE.

4.4 Panel regression in presence of moderating variable.

The second model represents the panel regression with the inclusion of the moderating variable. The inclusion of the variable was done using the composite to moderate the changes of the effect of the predictor variables on the dependent variables. The results are presented in the table below.

Table 4.3: Panel regression model with moderating variable

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Random-effects GLS regression                    Number of obs      =       66
Group variable: bank                             Number of groups   =       11

R-sq: within  = 0.4320                           Obs per group: min =        6
      between = 0.5817                                          avg =      6.0
      overall = 0.5241                                          max =        6

                                                 Wald chi2 (4)      =    51.19
Corr(u_i,x) = 0 (assumed)                        Prob > chi2        =   0.0000
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ROE	Coef.	Std. Err.	Z	P>|z|	[95% Conf.	Interval]
Inflation	.0075989	.0047210	1.61	0.107	−.0016540	.0168518
Interest rate	.0082245	.0040120	2.05	0.040*	−.0033986	.0198476
Exchange rates	−.0038384	.0010256	−3.74	0.000*	−.0058485	−.0018284
Bank Size	.1461696	.0458917	3.19	0.001*	.0562235	.2361158
_cons	−.8079749	.4157349	−1.94	0.052	−1.6221010	.0068506
Sigma_u	.03795630					
Sigma_e	.03454017					
rho	.54701695	(fraction of variance due to u_i)				

Source (Study Data, 2019)

With the introduction of bank size which is a moderating variable, a unit increase in the rate of inflation leads to a non-significant increase in ROE by 0.0076. The p value is 0.107 which is less than 0.05. A one unit increase in the rate of interests leads to a significant increase in the ROE by 0.0082. The p value of 0.040indicates significance. There is a significant inverse relationship between the exchange rate and the ROE. A unit increase in the exchange rates leads to a decrease in the Banks' ROE by 0.0038 times. The p value obtained is 0.000 which indicates that the effect of exchange rate on ROE is significant. The moderating variable (Bank size) is statistically significant as shown by the p value of 0.001. As the bank size increase by a unit, there is an increase in the ROE by 0.1462 times. In the absence of the explanatory variables, there is a non-significant decline in ROE by 0.8079. From the model, an R^2 of 0.5241 was obtained which implies that the predictor variables and the moderating variable explain 52.41% of the changes in the ROE. Further, there was an increase in R^2 from 0.1548 in the absence of the moderating variable to 0.5241 in the presence of a moderating variable.

4.5 Test for Moderation Effect

The third model represents the panel regression from the interactions between the predictor variables and the moderating variable (Bank size). If the value of the interaction terms is zero or statistically insignificant then there is no moderating effect otherwise where the value is statistically significant there is a moderating effect of the moderating variable (Whisman & McClelland, 2005).

Table 4.4: Interaction effects of moderating variable

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Random-effects GLS regression              Number of obs      =       66
Group variable: bank                       Number of groups   =       11


R-sq: within  = 0.4669                     Obs per group: min =        6
      between = 0.5806                                     avg =      6.0
      overall = 0.5388                                     max =        6

                                           Wald chi2 (4)      =    57.98
Corr(u_i,x) = 0 (assumed)                  Prob > chi2        =   0.0000
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ROE	Coef.	Std. Err.	Z	P>|z|	[95% Conf.	Interval]
Inflation	.0083393	.0065420	1.27	0.207	-.0047422	.0214208
Interest rate	.0091579	.0040883	2.24	0.025*	-.0033986	.0198476
Exchange rates	-.0039838	.0014303	-2.79	0.007*	-.0068438	-.0011238
Bank Size	.1721948	.0248436	6.93	0.000*	.1225171	.2218727
Bsize*Infla	.0140224	.0188642	0.74	0.457	-.0229507	.0509955
Bsize*IntRates	.0044723	.0018404	2.43	0.015*	-.0438202	.0527648
Bsize*Excrates	-.0384116	.0109124	-3.52	0.000*	-.1093320	.0325088
_cons	3.4966920	6.0421641	0.58	0.563	-8.3457311	15.3391201

Sigma_u	.03795630					
Sigma_e	.03454017					
rho	.54701695	(fraction of variance due to u_i)				

Source (Study Data, 2019)

The results presents the panel regression output from the interactions between the bank size and the independent variables. For every unit increase in the rate of inflation, there is an increase in the ROE of banks by 0.008 times other factors held constant. The increase is not statistically significant. For every one unit rise in the interest rate there is a 0.0092 rise in the ROE of the banks. The rise is significant as shown by the p value of 0.025. With a unit increase in the exchange rates, there is a 0.0039 times decrease in the banks' ROE other factors constant. The decrease is statistically significant based on the p value of 0.007. With the interactions between the bank size and inflation, there is an increase in the ROE by 0.0140 and this increase is not significant. The interaction between the bank size and interest rates results in a 0.0045 significant increase in the ROE for every unit. The p value is 0.015 which is less than 0.05. Lastly, the interaction between the bank size and Exchange rates results in a significant increase in the ROE. With the introduction of bank size which is a moderating variable, a unit decrease in the ROE by 0.0384 times other things held constant. The p value is 0.000 which implies statistical significance. In the absence of the interactions and the predictor variables, there is a 3.497 increase in the ROE. The increase is not significant at 0.05 level of significance. Further there is an increase in R^2 with the

interactions from 0.5241 in the absence of the interactions to 0.5388 in the presence of the interactions. This means that the interactions alongside the predictor variables explains 53.88% of the changes on the ROE of the banks that are listed in the NSE.

4.6 Hypotheses Testing

The first objective was to determine the effect of inflation on financial performance of commercial banks listed in the NSE. The null hypothesis states that inflation has no significant effect on financial performance of commercial banks listed in the NSE. The findings indicate that the effect was not statistically significant under the three models carried out. Therefore, the null hypothesis was not rejected at 5% significance level. Nonetheless, there was a positive association between the inflation and the ROE. These findings are in agreement with the study by Kwakwa (2014) who found a positive but insignificant association between the inflation and performance of the banks in Ghana. The findings however differ from those of Macharia (2013) who found a negative inflation effect on performance of Kenyan banks, with a focus on banks engaged in mortgage services.

The second objective was to determine the effect of interest rates on the performance of commercial banks listed in the NSE. The null hypothesis states that interest rate has no significant effect on financial performance of commercial banks listed in the NSE. The results indicate a positive significant correlation between the interest rates and the ROE. Therefore, the null hypothesis was rejected at 5% significance level. An increase in the interest rates finally contributes to the rise in ROE of banks. An investigation was done by Alper and Anbar (2011) on external determinants of profitability in Turkey covering the period 2002 to 2010. The bank profitability was looked at using ROA and ROE which are regressed on macroeconomic determinants. The findings of the study show that interest rates affects bank positively, thus implying that higher bank profitability is associated with high interest rates. The findings are in agreement with that from this study. A study by Macharia, (2013) however found a negative association between the interest rates and the ROE. The findings from this study disagrees with that of Macharia, (2013).

The third objective was to determine the effect of exchange rates on financial performance of commercial banks listed in the NSE. The null hypothesis states that exchange rate has no significant effect on financial performance of commercial banks listed in the NSE. The results from this study established a significant inverse relationship between the exchange rates and the ROE. Therefore, the null hypothesis was rejected at 5% significance level. This implies that with a unit increase in the exchange rates, there is a decline in the ROE of commercial banks listed at the NSE. These findings are consistent with that of Desaro (2012) who did a research on influence of macroeconomic variables on banks performance in Kenya. The study findings from her study showed that ROA was negatively correlated with exchange rate.

The fourth objective was to examine the moderating effect the bank size on the relationship between macroeconomic factors and financial performance of commercial Banks listed at the NSE, Kenya. The first model was carried out by treating bank size as an independent variable. From the regression results the effect of bank size was significant at 0.05 level of significance. In this model, for every unit increase in the rate of inflation, there is an increase in the ROE of banks by 0.008 times other factors held constant. The increase is not statistically significant. Similarly, for every one unit rise in the interest rate there is a 0.0092 rise in the ROE of the banks. The rise is significant as shown by the p value of 0.025. With a unit increase in the exchange rates, there is a 0.0039 times decrease in the banks' ROE other factors constant. The decrease is statistically significant based on the p value of 0.007.

The second step was based on the interactions between bank size and each of the independent variables (macroeconomic factors). Therefore, the fourth hypothesis was broken down into three sub-hypothesis. The first sub hypothesis states that bank size has no significant moderating effect on the relationship between inflation and financial performance of commercial banks listed on the NSE, Kenya. With the interactions between the bank size and inflation, there is an increase in the ROE by 0.0140 and this increase is not significant. Therefore, the null hypothesis was not rejected at 5% significance level.

The second sub hypothesis states that bank size has no significant moderating effect on the relationship between interest rate and financial performance of commercial banks listed on the NSE, Kenya. The interaction between the bank size and interest rates results in a 0.0045 significant increase in the ROE for every unit. The p value is 0.015 which is less than 0.05. Therefore, the null hypothesis was rejected at 5% significance level. The positive effect of the interaction terms of bank size and interest rate is attributed to the notion that bigger banks are able to quickly and adequately respond to changes in the macroeconomic environment.

Lastly, the third sub-hypothesis states that bank size has no significant moderating effect on the relationship between exchange rate and financial performance of commercial banks listed on the NSE, Kenya. An increase in the interaction terms between the bank size and Exchange rates results in a significant decrease in the ROE by 0.0384 times other things held constant. The p value is 0.000 which implies statistical significance. In line with this, the null hypothesis was rejected at 5% significance level. The negative effect of the interaction terms of bank size and exchange rate is attributed to the notion that higher exchange rate implies depreciation of the home currency. Therefore, this in turn depletes the net worth of businesses.

5. CONCLUSION AND RECOMMENDATION

5.1 Conclusion

The conclusion of the study is based on the empirical findings of the study. The first objective was to determine the effect of inflation on financial performance of commercial banks listed in the NSE. In respect to this, the study concluded that the effect of inflation on financial performance is statistically insignificant. However, with regards to the effect of interest rate on financial performance of commercial banks, the study concluded that interest rate positively and significantly affects the financial performance of commercial banks listed on the NSE, Kenya. This is attributed to the notion that when bank increase the rates on loans, it leads to higher profits of these banks.

Regarding the effect of exchange rates on financial performance of commercial banks listed in the NSE. The study concluded that there exist an inverse and significant effect of exchange rate on financial performance of commercial banks listed on the NSE, Kenya.

Lastly, on the moderating effect the bank size on the relationship between macroeconomic factors and financial performance of commercial Banks listed at the NSE, Kenya. The study concluded that bank size has an insignificant moderating effect on the relationship between inflation and financial performance of commercial banks listed on the NSE, Kenya. Conversely, based on the research findings, the study concluded that bank size has a positive and significant moderating effect on the relationship between interest rate and financial performance of commercial banks listed on the NSE, Kenya. Also, the study concluded that bank size has a negative and significant moderating effect on the relationship between exchange rate and financial performance of commercial banks listed on the NSE, Kenya.

5.2 Policy Recommendations

The policy recommendations of the study are in line with the variables with significant effect on financial performance of commercial banks listed on the NSE, Kenya. Therefore, in pursuit for high profitability and hence better performance of banks, management can utilize interest rates by raising it moderately. Similarly, the Central Bank should manage interest rates adequately in order to avoid its fluctuations as this will hamper performance of banks. The study recommends that bank management consider the prevailing and anticipated exchange rates in the economy when making decisions regarding the international operations and investments of banks.

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