

# BANK SPECIFIC CHARACTERISTICS AND RETURN ON EQUITY OF COMMERCIAL BANKS IN KENYA

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**Abstract:** A progressive banking sector withstands negative economic shocks and helps in enhancing the stability of the financial system. The return on equity of commercial banks in Kenya has been experiencing a decline. The decline has brought concerns from different quarters of the financial sector and other stakeholders. The study aimed at establishing the impacts of bank specific characteristics on return on equity of commercial banks in Kenya. The specific objectives were to establish the effect of bank size, management efficiency and asset quality on return on equity of commercial banks in Kenya. The study focused on 43 banks listed by CBK at 2017. The study was based on casual research design. The study focused the period 2014 to 2017, where panel regression analysis was used. The outcome from the examination was that bank size and management efficiency have significant positive effect on return on equity of commercial banks in Kenya. Asset quality has an insignificant negative effect on return on equity of commercial banks in Kenya. The study therefore recommends that banks should utilize assets by investing in other ventures to maximize profits and by extension performance. The research suggests that focus should be placed on the banks' operating income as this in turn raises the banks' performance. Subsequent studies can replicate this in other segments of the financial sectors by focusing on SACCOs and Micro Finance Institutions.

**Keywords:** Bank Specific Characteristics, Bank Size, Management Efficiency, Asset Quality, Return on Equity.

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## 1. INTRODUCTION

### 1.1 Background of the study

Globally, banks have a key responsibility to play on the economic expansion and growth on the nations. According to Okoth and Gemechu (2013), banks play a key role in distributing key resources to investors and savers with objectivity of enhancing their economic status. Chirwa and Mlachilla (2004) describes banks as key financial mediators that transforms deposits into assets (financial) and direct funds from business liquidity surplus, to facilitate capital formation and trade.

The banking sector has over years experienced various changes technologically and globalization, thus creating fast opportunity for growth (Weersainghe & Perera, 2013). Similar to other developing nations, the banking sector of SSA has gone through unprecedented key shifts in its environment of operating. This has affected the banks performance thus affecting the economic stability of a country (Gatete, 2015). Kagecha (2014) postulates that stability of the financial system heavily depends on profitability of banks and factors affecting profitability which are both internal and external. It is therefore, considered imperious for institutions to sustain the pressure that arises from their internal environment and to demonstrate the firm's profitable (Sarita, Zandi & Shahabi, 2012).

In Kenya, banks have dominated the financial sector and any collapse in the industry has adverse effects on the financial wellbeing and economic development of the nation (Kamande, 2017). This is since any possible occurrence of bankruptcy that may take place within the sector has a negative impact that can affect the Banks's sustainability a factor that may lead to both economic and financial crisis issues.

Bank Specific Characteristic are characteristic involving personal banks' features, that impacts the banks' performance. The factors are affected by the inside decision of executive and board. The factors are as well inside the bank's capacity to influence them and they tend to vary from one bank to another (Kamande, 2017). Bank specific characteristics affect the banks' performance. They include size, management efficiency and asset quality.

### **1.2 Statement of the Problem**

An effective banking sector within any economy is highly expected to enhance growth and development by smoothening of business cycles (Obamuyi, 2013). CBK is charged with the mandate of controlling the interest charged by the commercial bank; hence interest rate ceilings have a direct effect on their profits (Gitonga, 2013).

Notably, performance of Kenya's banks has seen a downward trend in 2014 to 2017. According to CBK Annual Report (2017), an accelerated decline was reflected on the 2016 and 2017 financial periods where the pre-tax profits had a 9.6% decline in 2017. Similarly, the assets quality declined with NPL ratio growing by 3% in December 2016 to 12.3% in December 2017. Equally, ROE was 20.6% from 24.4% in December 2016. The decline in the performance of banks has been largely traced to bank characteristics and the introduction of interest rate capping by the Banking (Amendment) Act, 2016 (Ng'ang'a, 2017)

Several studies have been conducted on independent subjects of assets quality, bank specific characteristics and Kenya's bank performance. Cheruiyot (2017) conducted the study on asset quality and Kenyan banks' profitability established the existence of a great positive association between asset quality and profit levels. Kaneza (2016) examined the factors impacting listed banks' performance. The study findings revealed that efficiency of management had a positive effect; however, asset quality had a negative effect on both ROA and ROE. Whereas Kagecha (2014) conducted the study on bank performance, does bank size matter? The empirical findings showed that size does not matter in determining profitability of banks.

Despite of studies done on bank specific characteristics and banks performance there were contradictory findings on the relationship between the variables involved. The study sought to address this gap by assessing the effect of bank specific characteristics on return on equity of commercial banks in Kenya.

### **1.3 Objectives of the Study**

#### **1.3.1 General Objective**

The key objective of this research was to determine the effect of bank specific characteristics on return on equity of commercial banks in Kenya.

#### **1.3.2 Specific Objectives**

- i.** To ascertain the effect of bank size on return on equity of commercial banks in Kenya.
- ii.** To establish the effect of management efficiency on return on equity of commercial banks in Kenya.
- iii.** To determine the effect of asset quality on return on equity of commercial banks in Kenya.

*The null hypotheses were tested in view of the specific objectives*

## **2. LITERATURE REVIEW**

### **2.1 Theoretical Review**

Market Power Theory was introduced by Bhagwati(1965), market powers is reflection of the extent to which an organization can impact the specific price of a product. Thus, characters which associated to imperfect competition in which organization within the market contain different market powers. The theory demonstrates that increasing a firm's outside market forces results to high performance. Besides, the model demonstrates that only organizations with many assets with effectively differentiated product portfolio may win clients and attain higher profits and earn abnormal profit. This process implies that institutions with larger size can influence prices and thus attain high profits (Tregena, 2009).

Efficiency Structure Theory was advanced by Damsetz (1973). The model provides that effective managerial scale efficiency results to wider concentration and then enhances financial performance. The analogy defines the desirable performance of organizations especially the banks that are commercial in nature. The efficiency structure theory states that performance of an organisation is positively associated to its effectiveness. Enhanced profits are assumed to accrue to

more efficient firms (Ayano, 2016). The approach as well consists of two hypothesis, the scale efficiency and X efficiency. Under X efficiency, banking institutions having effective managerial strategies and containing strategies of controlling costs, raises profits, the scale-efficiency hypothesis provides that some financial institutions attain a better operations scale and hence lowering costs.

## **2.2 Empirical Review**

An examination by Buyinza (2010) in examining the banks' profitability within SSA nations aimed at investigating the performance and profitability level of 23 banks covering the years from 1999 -2006. Panel regression was utilised under which the findings would express that institutions' size had a positive influence on profitability. Olweny and Shipo (2011) assessed on the impacts on bank's sectorial factors on Kenyan banks performance. The examination utilized exploratory approach by adopting panel data. Besides, 38 financial reports of different institutions would be utilized covering years from 2002-2008. From the analysis, which used multiple linear regression techniques it was apparent that quality of asset inversely influences on banks' performances.

Pinter, Akhtar, Ahmed, and Ali (2011) assessed the bank specific features and the performance of Pakistani banking institutions. A sample consisting of twenty two private and public banks covering the years 2006- 2009 and utilizing both multiple regression and panel model, the study would express that an institution's size greatly influenced the performance of the institutions. AlQudah and Jaradat (2013) also supported the fact that the institution's size has positive significant impact on the profit as measured by ROA and ROE.

Liu (2011) did a study on CAMELs and how they affect the performances of Kenya's banks. The research would focus on the period of 2008-2011 addressing 13 firms. Using multiple regression approach, the study established that efficiency of management influences the bank's performance. Though the examination mainly focused on China's banks, and the present research concentrated on Kenyan banks.

Hui and Jha (2012) examined the financial features and performance of Nepal's banks. The examination focused on the CAMEL model in identifying key determinants. The research examined eighteen banks from 2005-2010. According to the study outcomes, efficiency of management had strong impact on the performances of Nepal's banks as determined by ROE and ROA. Atanda and Ajayi (2012) assessed on the impacts of fiscal guideline tools on the performance of Nigeria's banks. It covered 20 years from 1980 and adopting Engle-granger 2 step integration approaches would be utilized expressed that there exists negative effect between quality of assets and the banks performance. Though, the authors mostly focused on Nigeria's banks thus the study's outcomes cannot be used in generalizing performances of Kenya's commercial Banks

Ezra (2013) did a study on the determining variables of bank profit rate in Sub-Sahara Africa. The study focused on the years from 1999-2006 on 216 banks from 42 nations and found that GPD liquidity ratio, inflation, bank size and operational efficiency influence performance of banks. However, the analysis was a cross-country assessment hence the present assessment concentrated on Kenya based on the impact of efficiency of management on return on equity.

Kwakwa (2014) analyzed the determining variables affecting performance of Ghana's banks. The research would consider the impacts of bank's size, the rate of supply of money and inflation on the performance of the institutions. The progression of the selected institutions would measure based on ROE. The outcomes of the research indicate that banks size had inconsequential positive impacts on ROE. Besides, the research would be centered on Ghana's banks, thus the outcomes excluded Kenya, due to the varying economic characteristics and monetary policies applied in various countries. Alemu and Negasa (2015) did a study which focused on determining key factors that influence performance of banks in Ethiopia. The research utilised data recorded from 2002-2013. The study's findings reflect that the institution size determined by the logs of total assets contains inverse effect on bank's performance.

## **3. RESEARCH METHODOLOGY**

### **3.1 Research Design**

Kothari(2014) provide that design institutes the design for collecting, measuring and estimating data. Besides, Mugenda and Mugenda (2013) it forms the association and structuring of strategies for gathering and analyzing data is a way that intends to relate significance to the examination's objectives. The study embraced casual research technique. The design is conducted about research issues that aim to find cause-effect associations between variables. Thus, the design is effective for the research as it strived to show the influences of bank specific characteristics on return on equity of commercial banks in Kenya.

### 3.2 Target Population

Kothari (2014) provide that a populace reflects on the key elements of concern in a study. The study’s target populace include 43 banks licensed and registered under the banking Act Chapter 488 and were in existence on 31 December 2017. The choice of the study period is 4 years 2014 to 2017, which is considered appropriate due to the post introduction and during the enactment of Banking (Amendment) Act 2016.

### 3.3 Sample and Sampling Design

The focus of the study will be commercial banks in Kenya which have been in operation from 2014 to 2017 as per Central Bank Kenya. The sample size comprised of the 43 banks licensed through CBK as at 31 December, 2017.

## 4. RESEARCH FINDINGS AND DISCUSSIONS

### 4.1 Descriptive Analysis

The descriptive analysis of the study provides various statistics (min, mean, max, standard deviation) for each of the research variables. These statistics provide the general features of the examination variables as contained in Table 4.1.

**Table 4.1: Descriptive Statistics**

Variables	Mean	Std. Dev.	Min	Max
ROE	0.114	0.212	-1.327	0.494
Bank Size	4.705	0.494	3.948	5.609
Management Efficiency	0.609	0.167	0.000	0.912
Asset Quality	0.136	0.229	0.000	2.588

#### Source: Study Data (2019)

The statistics presented in Table 4.1 reveal that ROE had a total observation of 146, a mean and standard deviation of 0.114 and 0.212 which imply that over the study period, ROE fluctuated relatively. Bank size had a total observation of 80, mean of 4.705 with standard deviations of 0.494. This therefore indicates that bank size had high level of fluctuation within the study period. Management efficiency had a total number of observations of 152 with a mean of 0.609 and a corresponding standard deviation of 0.167 which means that management efficiency was comparatively steady. This is further supported by a min of 0.000 and max of 0.912. Lastly, asset quality had a total of 147 observations with a reported mean and standard deviation of 0.136 and 0.229.

### 4.2 Test For Fixed and Random Effects

The study tested for random effect and fixed effect for purposes of selecting the most adequate model for estimation. This test was based on a Hausman test procedure with the null hypothesis stating preference to random effect model. As such, a p-value <0.05 signifies the null hypothesis to be rejected thereby favoring the fixed effect model and vice versa. The outcome of the Hausman test is displayed in Table 4.2.

**Table 4.2: Hausmann Test (ROE)**

	Coefficients			
	(b) Fixed	(B) Random	(b-B) Difference	sqrt (diag (V_b-V_B)) S.E.
Banksize	-.0255652	.1231282	-.1486933	.1380466
MgtEfficie~y	.6879274	.4452184	.242709	.1365974
Assetquality	-.0212836	-.0295765	.008293	.

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(3) = (b-B)' [(V\_b-V\_B)^(-1)] (b-B)  
 = 3.70  
 Prob>chi2 = 0.2963  
 (V\_b-V\_B is not positive definite)

#### Source: Study Data (2020)

Table 4.2 contains the output of the Hausman test for the ROE model. A p-value of 0.2963 was found. Notably, the p-value was above the 0.05 threshold, therefore the examination utilised the random effect for estimation.

### 4.3 Hypotheses Testing

#### 4.3.1 Bank Specific Characteristics and ROE of Banks in Kenya.

This section exhibit the outcome of the panel regression model for bank specific characteristics and return on equity. The regression outcomes are contained in Table 4.3.

**Table 4.3: Panel Regression (ROE)**

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Random-effects GLS regression           Number of obs   =           78
Group variable: Bank                   Number of groups =           20

R-sq:                                   Obs per group:
  within = 0.1506                        min =           2
  between = 0.3076                       avg =           3.9
  overall = 0.2984                       max =           4

corr(u_i, X) = 0 (assumed)              Wald chi2(3)    =           17.42
                                           Prob > chi2     =           0.0006
    
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ROE	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
Banksize	.1231282	.0629299	1.96	0.050	-.0002122	.2464685
MgtEfficiency	.4452184	.1462087	3.05	0.002	.1586547	.7317822
Assetquality	-.0295765	.0322276	-0.92	0.359	-.0927415	.0335884
_cons	-.7237857	.2892959	-2.50	0.012	-1.290795	-.1567762
sigma_u	.13618651					
sigma_e	.07255486					
rho	.77891675	(fraction of variance due to u_i)				

#### Source: Study Data (2020)

The outcome in Table 4.3 indicates an  $R^2$  of 0.2984 thus implying that bank specific characteristics collectively explain about 30% of the change in ROE. This is further supported by a p-value of 0.0006, implying that the model is significant. The examination investigated the effect of bank size on return on equity of commercial banks in Kenya. A corresponding null sub hypothesis was subsequently formulated stating that size of bank has no significant effect on ROE of Kenyan banks. The outcome shows a coefficient of 0.1231 and a p-value of 0.050. This therefore implies that bank size has positive and significant effect on ROE of Kenyan banks. Hence, rejected at 0.05 level of significance. Increases in the sizes of banks as measured by total assets result in increases in the ROE by 0.1231. The results can be linked to the fact that increasing bank size implies increases in the assets of banks and as such providing them with the enablement to explore variable investment opportunities and thus, increasing the ROE of banks. The study findings correspond with those of previous studies such as Buyinza (2010). Pinter *et al.* (2011) and Al-Qudah & Jaradat (2013) also supported the fact that the institution’s size has positive and strong influences on equity returns of banks.

Secondly, the examination sought to assess the impact of efficiency of management on banks’ ROE in the context of Kenya. A null sub hypothesis stating that management efficiency has no significant effect on ROE of Kenyan banks was examined. The analysis produced a coefficient of 0.4452 and a p-value of 0.002 and reveals significant effect. The null hypothesis was then rejected at the threshold of 0.05 level of significance. Therefore, the higher the management efficient of banks, the higher their ROE. Liu’s (2011) established that efficiency of management has significant on performance of banks. Hui and Jha (2012) established that efficiency of management had a significant effect on performances of Nepal’s banks as determined by ROE. Okoth and Gemechu (2013) found that efficiency of management has a significant positive impact on the performance of Kenya’s banks.



The third specific aim was to ascertain the nexus between quality of asset and ROE of commercial banks in Kenya. The examination formulated and tested a null sub hypothesis stating that asset quality has no significant impact on ROE of Kenyan banks. The regression analysis showed a coefficient of -0.0296 and p-value of 0.359 implying no significant effect. Therefore, asset quality has inverse and insignificant consequence on return on equity of Kenyan banks. The outcome with regards to impact of asset quality on ROE can be linked to the fact that asset quality comprises of NPLs to total loans ration and as such, higher ratio implies high levels of bad debts which are subsequently written off against bank profits, thus the reason for the negative effect. These results collaborate those of Olweny and Shiphoh (2011) and Ajayi and Atanda (2012) found that asset quality has insignificant and negative effect on performance of banks.

## 5. CONCLUSION AND RECOMMENDATIONS

An effective banking sector within any country is highly anticipated to enhance growth and development by smoothening of business cycles. The study established significant effect of bank size on return on equity. The study therefore recommends that banks need to fully utilize assets by investing in other ventures to maximize profits and by extension financial performance.

The study found management efficiency to significantly improve the performance of Kenyan banks. The research therefore recommends that focus should be placed on the operating income of banks as this in turn raising the banks performance. Asset quality was found to have insignificant effect on return on equity of commercial banks in Kenya.

## REFERENCES

- [1] Ajayi, F. & Atanda, A. (2012). Monetary Policy and Bank Performance in Nigeria: A Two-Step Cointegration Approach. *African Journal of Scientific Research*, 9 (1).
- [2] Alemu, S., & Negasa, D. (2015). Determinants of Financial Performance of Commercial Banks in Ethiopia. *Journal of Business Management and Economics* 3: 11 November (2015).
- [3] Al-Qudah, A. M., & Jaradat, M. A. (2013). The Impact of Macroeconomic Variables and Banks Characteristics on Jordanian Islamic Banks Profitability: Empirical Evidence. *International Business Research*, 6.
- [4] Ayano, F. (2016). Determinants of Commercial Banks Financial Performance in Ethiopia. *Unpublished Thesis*. Addis Ababa University
- [5] Buyinza, F. (2010). Determinants of Profitability of Commercial Banks in Sub-Sahara Africa Countries. *Unpublished Work of the Department of Economics, Johanassen Kepler University*.
- [6] Cheruiyot, K. (2017). The effect of asset quality on profitability of commercial banks in Kenya. *Unpublished MBA Project*. University of Nairobi.
- [7] Chirwa, E., & Mlachila, M. (2004). Financial reform and interest rate spreads in the commercial banking system in Malawi. *IMF Staff Papers*, 51(1):91-122
- [8] Ezra, F. (2013). Determinants of commercial banks profitability in sub-Saharan Africa. *Economics Published 2013DOI:10.5539/ijef.v5n9p134*
- [9] Gatete, A. (2015) The effect of Bank Size on Profitability of Commercial Banks in Kenya. *Unpublished MBA Thesis*. University of Nairobi.
- [10] Gitonga, L. (2013): Determinants of profitability of commercial banks in Kenya. *Unpublished MBA Project*. University of Nairobi.
- [11] Jha & Hui (2012). "A Comparison of Financial performance of Commercial banks: A case study of Nepal". *African Journal of Business management*, 6(25).
- [12] Kamande, E. (2017). The Effect of Bank Specific Factors on Financial Performance of Commercial Banks in Kenya. *Unpublished MBA Project*. South Eastern Kenya University.
- [13] Kagecha, P. (2014). Bank performance: Does Bank Size Matter? Case of Commercial Banks in Kenya from 2007 to 2014. *Unpublished MA Economics Project*. University of Nairobi.

- [14] Kaneza, C. (2016). Factors Affecting the Financial Performance of Commercial Banks Listed on the Nairobi Securities Exchange. *Unpublished MBA Project*. United States International University -Africa.
- [15] Kwakwa, M. (2014). Determinants of Performance of Commercial Banks in Ghana. *Unpublished MSC Industrial Mathematics works*. Kwame Nkrumah University of Science and Technology
- [16] Mugenda, M. & Mugenda, G. (2013). Research methods: Quantitative and qualitative Approaches. Nairobi: *African Centre for Technology Studies*.
- [17] Ng'ang'a, K. (2017). Impact of interest rate capping on the financial performance of commercial bank in Kenya, for 2015 to 2017. *Unpublished MSC Finance Project*. University of Nairobi.
- [18] Obamuyi, M. (2013). Determinants of Banks' Profitability in a Developing Economy: Evidence from Nigeria. *Organizations and Markets in Emerging Economies*, 97-111.
- [19] Okoth, V.& Gemechu, B. (2013). Determinants of Financial Performance of Commercial Banks in Kenya". *International Journal of Economics and Financial, Issues Vol. 3, No.1*.
- [20] Olweny, T., Shiphoo, M. (2011). "Effects of Banking Sectoral Factors on the Profitability of Commercial Banks in Kenya". *Economics and Finance Review*, 1(15): 1-3.
- [21] Pinter, Ali, Akhtar, & Ahmed. (2011). A study on Bank Specifics and Performance of Commercial Banks in Pakistan. *International Research Journal of Finance and Economics ISSN 1450-2887 Issue 66 (2011)*
- [22] Sarita, B., Zandi, G., & Shahabi, A. (2012). Determinants of Performance in Indonesian Banking, A cross-sectional and Dynamic panel Data Analysis. *International Journal Of Economics And Finance Studies Vol 4, No 2, 2012 ISSN: 1309-8055*.
- [23] Weersainghe, V. & Perera, R (2013). 'Determinants of Profitability of Commercial Banks in Sri Lanka' *International Journal of Arts and Commerce*. 2(10): 141-170.