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Effect of portfolio diversification on financial performance of commercial banks in Kenya; A focus on commercial banking listed at nairobi stock exchange

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Abstract
Commercial banks play a significant role in the growth of a country. A progressively sound and active banking system is an essential necessity for economic growth. The general objective of this study was to investigate the effect of portfolio diversification on financial performance of commercial banks listed at NSE. The specific objectives of the study were to: examine the effect of Real estate financing on financial performance of commercial banks listed at NSE, determine the effect of Insurance investments on financial performance of commercial banks listed at NSE and determine the effect of bond investments on financial performance of commercial banks listed at NSE. This study was informed by the following theories; Modern Portfolio Theory, Agency Theory and Diversification Strategy model. The study adopted a survey descriptive design. The study targeted all the 11 commercial banks listed at NSE. It relied on secondary data obtained from the audited and published financial reports of the listed banks for a period 2013 - 2018. Data was collected using data collection sheets. Data was analyzed using descriptive statistics such as percentages, mean, frequencies and standard deviation. Correlation matrix analyzed the association between dependent variable and the independent variable. Tables, charts, and graphs were used to present quantitative data. The study findings revealed that a unit increase in real estate financing and insurance investments by the banks producing a corresponding growth in ROE and ROA by 0.0% and 0.0% respectively. On the other hand, a unit change in bond investments by the listed banks led to a 0.5% and 0.1% increase in ROE and ROA respectively. Overall, these results provide enough evidence to conclude that both real estate financing and insurance investment do not have any significant effect on financial performance whereas the investment on bond has a positive impact on the financial performance of commercial banks. This study demonstrates that there are good reasons for commercial banks to consider specializing in new portfolio. Bonds are attractive options from a financial investment perspective for commercial banks over the long run as they offer viable diversification possibilities for the banks over time and across the business cycle. The study recommendation is the need for creating more awareness across private and corporate investors to facilitate greater participation in the bond portfolio of commercial banks in Kenya. This enhances understanding among people who are not well versed with the role and benefits offered by corporate bonds.

Keywords: portfolio diversification, real estate, insurance, bonds, commercial banks, financial performance

1. Introduction

Diversification is the process of allocating capital with an effort to reduce the risk exposure on an asset (Marling & Emanuelson, 2012). According to Churchill and Frankiewicz (2011), diversification can also be defined as the development, marketing and delivery of products that expand an organization's existing product offered. Diversification is a portfolio tactic that is intended to reduce risk by combining various investments with great returns. The gain of diversification is obtained by shifting from interest income to non-interest income in bank‘s revenue and reduced volatility of the commercial banks' profits (Stiroh, 2008) [31]. This fundamental concept of portfolio theory helps to reduce risk in finance. As a technique, different investments are mixed together in a portfolio to help manage risk in a financial institution.

Diversification in the banking industry is driven by the resilient competition from both the informal financial institutions and the microfinance institutions (Mwau, Tarus & Kosgei, 2015) [21]. This has caused noticeable diversification strategies in the financial sectors in order to overcome the competition pressure and profit compression. In Kenya for example, several banks have ventured into real estate and mortgage financing, some have opted to invest on government securities like bonds while others are offering Insurance investments by partnering with Insurance companies. This study will focus on addressing the effect portfolio diversification has on Kenyan commercial bank's financial performance.

A portfolio on the other hand is a process in which different assets and liabilities with similar risk and returns are placed together in one group for investment purpose (Arora & Jain, 2013) [2]. According to Mutega (2015), portfolio diversification is defined as the process in which different financial securities and asset classes are invested to manage risks and enhance returns such that damage of a portfolio's performance can be avoided. Arora and Jain (2013) [2] defines portfolio diversification as the process of conveying together varied assets to reduce the overall risk linked with the whole portfolio of the organization.

Diversifying a firm's portfolio is mandatory for maximising returns and profit provided lowest allowance of risk by combining different classes of products and services in a specific portfolio. Banking diversification is tracked to lower portfolio losses and mitigates operational risks. Each firm looks to improve their financial performance by spreading their assets for income gain on both interest monetary income and non-interest revenue in their corresponding collections (Mutega, 2015). The non-interest revenue essentials that are usually taken into account for portfolio diversification comprise of revenue on investments, bancassurance premium revenue, mobile banking fees, monetary trading incomes, real estate revenues and levies as well as charges on financial services other than loan-related interest charges.

1.1 Real Estate Financing

Real estate financing is defined as the facilitation of capital for buying of a house or aimed at a particular construction. Capital is essential for construction of housing or to access domestic and business housing plan as a result, the financial organizations offer financial support in terms of a credit against some form of security (Odhiambo, 2015) [24]. Real estate financing is a secured method of credit that permits the mortgaged property to perform as the security. Globally, there are several organizations that engage in the lending of funds for real estate schemes and these include: pension funds, insurance corporations, commercial banks, government parastatals, mortgage finance companies and other real investment entities (Lwali, 2008).

1.2 Bancassurance (Insurance Investment)

The term "bancassurance" was primary cast-off in France, where collaboration between insurance companies and banks was underway before in the European nations. The merging between different segments of financial institutions was stimulated by the deregulation procedure emerged towards the end of the Eighties. The 1989 Second Banking Directive in Europe permitted general banking and unrestricted mutual contributions towards the investment and insurance firms (Muunda, 2013).

1.3 Bonds Investment

According to CBK (2018), a bond is a fixed income instrument that represents a loan made by an investor to a borrower (typically corporate or governmental). It is a secure, medium to long-term investment that typically offers interest payments every six months throughout the bond's maturity. It involves the investor receives money from the initial buyer of the bond and the buyer accepts to pay the investor of the bond regular income in addition to returning of the capital at a specific future time. Bonds are similarly divided between government bonds that are issued by state government and corporate bonds issued by corporations, such as big commercial banks and other big registered firms (Rothwell, Harnum & Beckett 2015).

2. Research Objective

To determine the effect of Portfolio Diversification on Financial Performance of Commercial Banks listed at Nairobi Securities Exchange

3. Literature Review

The concept of diversification has occupied a universal hub stage in the course of handling administration. It has turned out to be an important part of undertaking business in the professional world. The diversification of portfolios on real estate, insurance investment and bonds investment are some of the variables that guide the financial performance of a bank. The relationship between financial performance and diversification has become a subject on many studies nevertheless the researchers decided to give diverge relations between diversification and financial performance (Elango & Ma, 2003). This relationship silent remains conflict-ridden due to the variety in the conclusions.

The banking entity in Kenya has undergone a big change in the last 2 years, ever since capping on interest for asset financing in September 2016 was introduced. Traditionally, the banking products included deposit services, loan and asset financing, and savings among others which accounted for a major chunk of the business in the banking sector. The number of loan accounts declined significantly between October 2016 and June 2017, thereby leading in increasing average loan size, by 36.7 percent over the period due to the high rise in excessive risk and competition after the interest cap hence lowering the expected returns and this led to financial crises in many sectors of the financial institutions (CBK, 2018). As a result, profitability in the banking sector declined with ROE touching down at 24.4% in 2017 from 24.7% in 2016 and ROA reducing to the lowest level of 2.8 % in 2017 from 4% in 2016. These posed a risk to financial steadiness through amplified balance sheet risks reduced capacity to create capital bumpers to absorb tremors (CBK, 2018). Locally, a few studies have been done on portfolio diversification; for instance, Kimeu (2014) and Ojiambo (2014) studies show the impact portfolio diversification and real estate finance have on the financial performance of commercial banks. Moreover, existing research on management typically focuses on the portfolio diversification strategies of companies in developed countries (Taggart, 2007; Bartlett & Ghoshal, 2009). With the many studies that have been done on portfolio diversification and financial performance in Kenya.

3.1 Research Methodology

The study used a descriptive survey design to investigate the effect of portfolio diversification on the financial performance of the commercial banks listed at NSE. This design is effective to analyse non-quantified topics and issues and provides indication that define the data, allowed comparisons between different variables, spot the smallest and largest numbers and trends over a period. The design also defines and clarifies the research findings showing the relationships between different variables and provides the possibility to observe the phenomenon in a completely natural and unchanged natural environment. This study was limited to the 11 commercial banks listed on Nairobi Stock Exchange. This had been selected mainly because the listed commercial banks major on all investment's options including Real estate financing, insurance investment and Bond investments used in the study. The study relied on mainly secondary data of each listed commercial banks applying a census method due to the small population. Through data collection sheets, data collected was administered from NSE and CBK financial reports found on their website to obtain the requisite secondary data.

4. Research Findings and Discussions

4.1 Return on Equity

The profit that is earned from the organization's equity value is the return on equity. Its normally calculated as net income after taxes divided by the total capital equity. The level of ROE attained gives an impression to the shareholders of how the firm is performing and how much profit has been attained based on their savings. Figure 4.1 below shows the ROE for all the 11 listed commercial banks on a period of 6 years including the minimum, maximum, mean and their standard deviations.

Table 1: Return on Equity

ROE Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Barclays	6.00	23.00	36.80	28.48	5.57
CFC Stanbic	6.00	16.90	31.30	24.88	4.84
I & M	6.00	21.50	35.50	28.15	5.36
DTB	6.00	19.10	30.00	23.48	4.01
HF	6.00	-4.30	21.40	12.57	10.47
KCB	6.00	28.40	35.20	31.10	2.43
NBK	6.00	-15.40	19.20	6.55	12.31
NIC	6.00	19.20	29.60	23.10	4.40
SCB	6.00	21.30	37.00	28.32	6.73
Equity	6.00	36.00	49.40	42.27	5.38
Co-operative	6.00	24.20	30.00	27.98	2.46
Grand Averages	6.00	17.26	32.31	25.17	5.81

Source: CBK (2013-2018)

Table 4.1 above highlights the descriptive statistics for ROE of the 11 listed commercial banks in NSE over the period 2013-2018. The findings indicated that the grand average ROE for the listed commercial banks over the period 2013-2018 was (M=25.17, SD=5.81). This indicated that all listed commercial banks reported profitability marked by 25.17 returns on capital employed with a minimum ratio of 17.26 and a maximum percentage of 32.31.

4.2 Return on Assets

Return on Asset is the percentage of a bank's net income after taxes to its total assets and it shows how effectively and competently the firm's resources are employed to create more revenue. This will show how the resources disposed generate income as well as measure the firm's efficiency based on the total assets generated profits. Figure 4.2 below illustrates the listed banks' minimum, maximum mean and standard variation of the ROA.

Table 2: Return on Assets

ROA Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Barclays	6.00	3.20	5.80	4.53	1.04
CFC Stanbic	6.00	2.34	4.31	3.46	0.71
I & M	6.00	3.80	5.66	4.99	0.83
DTB	6.00	3.05	4.90	3.84	0.71
HF	6.00	-0.70	2.60	1.55	1.31
KCB	6.00	4.94	5.93	5.34	0.41
NBK	6.00	-1.34	1.90	0.63	1.21
NIC	6.00	2.94	4.60	3.77	0.66
SCB	6.00	3.34	6.42	4.78	1.25
Equity	6.00	5.60	7.70	6.47	0.87
Co-operative	6.00	4.14	5.15	4.51	0.37
Average	6.00	2.85	5.00	3.99	0.85

Source: CBK (2013-2018)

The findings in table 4.2 show the ROA minimum, maximum, means and averages of each bank listed at NSE for the period of 2013 to 2018. The findings revealed that with a grand average mean value and deviation on ROA being at (M=3.99, SD=0.85), the highest mean and low deviation on ROA of (M=6.47, SD=0, 87) was recorded by Equity bank followed closely by KCB bank that recorded ROA value of (M=5.34, SD=0.41).

4.3 Real Estate financing

Real estate financing is a secured method of credit that permits the mortgaged property to perform as the security. Most commercial banks involve in real estate financing as a means of spreading their portfolio and impacting their financial performance positively due to its profitability.

Table 3: Real Estate financing (millions)

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Barclays	6.00	56.70	269.00	116.18	80.98
CFC Stanbic	6.00	147.28	1222.00	709.79	410.16
I & M	6.00	12.00	340.00	147.64	152.43
DTB	6.00	0.00	52.00	24.09	19.75
HF	6.00	3031.96	7656.00	4836.33	1758.06
KCB	6.00	2468.00	4979.00	3509.83	1118.65
NBK	6.00	119.00	567.50	309.47	183.90
NIC	6.00	21.00	621.00	225.59	302.77
SCB	6.00	67.06	454.94	257.09	166.30
Equity	6.00	162.00	1155.00	584.82	450.23
Co-operative	6.00	479.00	1211.00	984.18	280.42
Average	6.00	596.73	1684.31	1064.09	447.61

Source: CBK (2013-2018)

Table 4.3 shows the data containing the descriptive statistics for real estate financing of the listed commercial banks at NSE. The study findings revealed that HF bank had the highest mean and deviation values of real estate of (M=Kshs. 4.836 billion, SD= Kshs. 1.758 billion) respectively while KCB bank had a means and deviation value of real estate of (M=Kshs. 3.509 billion, SD=Kshs. 1.118 billion) respectively.

4.4 Insurance Investment

Bancassurance is another term used to describe insurance investments in commercial banks suggesting that both banking and insurance are being provided by the same entity or firm. This helps to reach a huge client base due to the banking influence and strategies. The insurance uses the bank's customer network to spread an extensive client base to sell its products while the bank increases its non-interest revenue with low risk. As a result, both the two entities benefit. Table 4.4 highlights the descriptive statistics of insurance investment on all the eleven listed commercial banks at NSE.

Table 4: Insurance investments (millions)

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Barclays	6.00	0.00	0.00	0.00	0.00
CFC Stanbic	6.00	0.00	236.00	48.25	93.42
I & M	6.00	0.00	41.20	18.04	13.27
DTB	6.00	2.00	63.00	19.03	24.92
HF	6.00	0.10	0.10	0.10	0.00
KCB	6.00	0.00	0.10	0.05	0.05
NBK	6.00	0.00	0.00	0.00	0.00
NIC	6.00	1.00	1.00	1.00	0.00
SCB	6.00	0.00	1.00	0.50	0.55
Equity	6.00	0.00	100.00	83.33	40.82
Co-operative	6.00	70.00	70.00	70.00	0.00
Average	6.00	6.65	46.58	21.85	15.73

Source: CBK (2013-2018)

The findings of the study from the table 4.4 above indicated that all the banks generally reported a grand mean and deviation on insurance value of (M=Kshs. 21.85 million, SD=Kshs. 15.73 million).

4.4 Bond investments

A bond is a secure, medium to long-term investment that typically offers interest payments every six months throughout the its maturity with a low risk if the investor remains solvent. The bonds invested in the listed commercial banks at NSE has been highlighted in figure 4.5 below through descriptive statistics.

Table 5: Bond investment (millions)

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Barclays	6.00	4759.00	63120.00	47432.17	21490.72
CFC Stanbic	6.00	5027.00	22491.00	9419.50	6678.49
I & M	6.00	2191.00	15612.00	9214.67	4472.39
DTB	6.00	6863.10	84911.00	36050.02	27587.07
HF	6.00	264.00	4085.00	2047.67	1539.61
KCB	6.00	1115.00	79363.00	37889.83	31836.02
NBK	6.00	27083.00	46342.00	33696.50	7263.55
NIC	6.00	18093.00	61706.00	35374.33	18442.56
SCB	6.00	40.00	191.28	112.06	55.34
Equity	6.00	0.00	0.00	0.00	0.00
Co-operative	6.00	2421.54	5746.27	4195.86	1239.32
Average	6.00	6168.79	34869.78	19584.78	10964.10

Source: CBK (2013-2018)

Table 4.5 above shows that Barclays bank had the highest mean value and deviation of invested bonds at (M=Kshs. 47.432 billing, SD=Kshs. 21.49 billion) following closely by KCB bank (M= Kshs. 37.889 billion. SD=Kshs. 31.836 billion), DTB bank (M= Kshs. 36.050 billion, SD=Kshs. 27.587 billion) and NIC bank (M= Kshs. 35.374 billion, SD= Kshs. 18,442 billion) respectively.

5. Conclusion of the Study

Besides the aesthetic returns generated from offering commercial banking services, this study demonstrates that there are good reasons for commercial banks to consider specializing in a few new portfolios however there are some portfolios that have no impact on their financial performance including real estate finance and insurance investment. Bonds are attractive options from a financial investment perspective for commercial banks over the long run as they are a store of value that generates significant and positive income. In other words, bonds offer viable diversification possibilities for the banks over time and across the business cycle. In light of the increasingly competitive global landscape, catalyzed by forces such as globalization, knowledge sharing and new communication channels, it will be difficult for many banks to achieve profitable growth. While many growth opportunities exist for banks, it can be deduced from the findings of this study that portfolio diversification serves as an easy first step towards realizing such growth strategy.

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