THE EFFECT OF ASSET DIVERSIFICATION ON THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

BY

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DECLARATION

I declare that this research project is my original work and has not been submitted before for a

degree in any other University.

Signed: ....   **Date: ....**

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This project has been submitted for presentation with my approval as the University supervisor.

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DEDICATION

This work is dedicated to my supervisor, family and friends for their support in ensuring the successful completion of this research..

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABREVIATIONS

ALM : Asset and Liability Management

AMS : Asset Management System

APT : Arbitrage Pricing Theory

CAMELS : Capital Adequacy, Asset Quality, Management Quality, Earnings Potential, Liquidity and Sensitivity to Market Risk

CBK : Central Bank of Kenya

CRB : Credit Reference Bureau

MFI : Micro- Finance Institutions

MIVs : Microfinance Investment Funds

MPT : Modern Portfolio Theory

NPL : Non Performing Loans

RMP : Relative Market Power

ROA : Return on Assets

ROCE : Return on Capital Employed

ROE : Return on Equity

ROTA : Return on Total Assets

SACCOs : Savings and Credit Co-operative Society

SCP : Structure Conduct Performance

SPSS : Statistical package for Social Sciences

ABSTRACT

The main goal is to banks is making profits from different types of assets. However, some of these assets can be non-productive in terms of generating income directly. Investors need to categorize investments in divisions of each asset group that can have varied performances in varying market conditions and they need to examine the past history and projected outlook in terms of risk, return and correlation of each of those investments. Commercial Banks have embarked on diversify their assets aimed at increasing their income sources. However, the impact asset diversification has on the commercial banks remains unknown. The study objective was to determine the effect of asset diversification on the commercial banks financial performance focusing on Kenyan context. The study is valuable to commercial bank managers as its focus is on the effect of asset diversification on the financial performance of commercial banks in Kenya. The findings would inform the managers on necessary considerations to make while selecting the degree of asset diversification. Further, study is valuable to the policy makers and the government institutions that regulate the banking sector in Kenya. Finally, the study contributes to the broader realm of academic research. Although various researches provide important insight into diversification, few research works examined asset diversification. Additionally, some studies focused solely on asset allocation and quality. Hence this study sought to fill this research gap.

This study used descriptive research design and the population of this study was 43 commercial banks in Kenya. Secondary data on financial performance and asset diversification was collected from commercial banks' annual reports. The study was limited to a time scope of 5 year starting 2011 to the year 2015. Quantitative data gathered was analyzed descriptively and used of inferential statistics. Further, Statistical Package for Social Sciences (SPSS) version 21.0 aided in data analysis.

The research findings were presented using tables and figures. Analytical model was generated to show link between the research variables whereby it emerged that 64.6% of the variations in financial performance of commercial banks was accounted by other investments, financial assets, cash and cash equivalent and loans. Further, the constant of the model was -0.09748 units which implied a negative financial performance. Further, holding other factors constant, a unit change in financial assets would change financial performance of commercial banks by 0.00162 units. When all the other factors are held constant, a unit increase in loans increases financial performance of commercial banks by 0.00179 units. Similarly, a unit increase in cash and cash equivalent holding other factors constant increased financial performance of commercial banks by 0.00136 units. Finally, a unit change in other investments holding the rest of the factors constant changes financial performance of commercial banks by 0.00067. It is recommended to the commercial bank managers to put into place strategies and plans that prevents such fluctuations given that cash and cash equivalents are key assets to banks. Further, it is recommended to commercial bank managers to reviews existing assets diversification plan, specifically on other investments in order to realign them. The researcher recommends for further research into the cash and cash equivalents, and other investments diversification in banks in order to have an exhaustive knowledge of the reasons behind declining trend in year 2015.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Today's unpredictable economic situation needs well-organized and effective financial structures for specialism in offering services and production, to win and maintain a friendly relationship with investors' and maintain competitive advantage in the market so as to boost economic transaction (Marcia, Otgontsetseg & Hassan, 2014). Therefore, having a financial system which is efficient and stable is vital. Due to volatile economic environment, commercial banks are focusing on new ways of enhancing their operations. This is aimed at increasing profitability, reducing risk, increasing share of the market, increasing debt ability, more growth and prolonging the life cycle of business. However, Marcia, Otgontsetseg and Hassan (2014) point out that banks' target of obtaining better returns/profits has been highly seen as the main motive contributing towards increased progression of financial innovations, loans base widening and increase in asset prices without economic basis.

As agued by Cernas (2011), asset diversification continues to be a key strategy employed by majority of businesses globally in the recent past modern business world. This is inclusive of banks. Perez (2015) argues that commercial banks need to have assets that earn more income especially in this period of increasing adoption and utilization of technology-enabled products and services. This is based on the fact that different assets achieve different performance when subjected to different economic settings, and the performance realized from such assets seem to have no correlated. Therefore, diversified assets can play a role in insuring a firm against market conditions and economic variations. The size of individual class of asset in the portfolio can be

varied to obtain maximum returns under the existing economic environment. Perez (2015) acknowledges that asset diversification is adopted by asset managers to very great extent aimed at reducing risk and increasing returns. He concluded that the higher the earning possessions, the better it turns to be for any bank.

1.1.1 Asset Diversification

Derek (2015) defines diversification as a way of managing portfolio whereby an investor diminishes instability and risks of her/his set of portfolio through holding a range of unlike investments are lowly correlated with one another. Cernas (2011) defines diversification as a strategy of managing portfolio through bringing together diverse assets to so as to lower the general risk associated with investment portfolio. On the other hand, asset diversification is a group strategy joining together more than one asset so as to lower the whole investment portfolio risk (Dimitriou, 2012). It is the practice of dividing a portfolio into key asset class of equities, cash equivalents, fixed income and alternatives. Asset diversification is the share of a portfolio spread through various classes of assets, regions and markets. Dimitriou (2012) acknowledges asset diversification as a fundamental principle of sound investing. The aim of asset diversification is to realize revenues for allowed risk margin by combination of different classes of asset in a way that is well calculated. This allow for smoothening the variability in returns achieved in each asset class. According to Perez (2015), bank assets include loans, financial assets, cash, other assets and premises. Perez (2015) concludes that asset diversification within banks can be measured through examining loans, financial assets, other investments made and cash equivalents.

Asset diversification has been adopted widely a strategy aimed at mitigating the turbulent markets and operational environments for investors. The major benefit associated with this move is lowering the portfolio volatility and losses and is generally very crucial especially when there is increased uncertainty (Dimitriou, 2012). The major advantage of any portfolio diversification is that it diversifies various investment along diverse categories of financial tools, whereby each has its own magnitude of risk-return. This diversification type is done with key objective being lowering the expected risk that may arise from having all resources put in one investment type only (Syriopoulos, 2005).

Through a careful strategy of diversification, commercial banks may prosper, rather than falling victim to the consolidation trend in the industry. Shambe (2003) argues that bank managers responsible for funds accept diversification to a level that is worthwhile and sensible for the served client and customers given its risk preferences and come up with a list of intended holdings consequently. Generally, firms desire investments that provide high returns at little risk. Unfortunately, in the real world, mixed returns and risks are bound. Diversification is appreciated as a one of the powerful and most promising methodology of lowering risks that any one poorly performing class of assets or individual asset would ruin your overall return.

Empirical studies that have been focusing on diversification have used various measures of performance, with majority basing these measurements on accounting, Tobin's q, that is market-book value ration and share price. Diversification data are regularly availed in accounts records of various firms. For this study, Specialisation Ratio (SR) method of measuring diversification will be used to measure asset diversification. SR, as argued by Perez (2015), is a ratio of annual revenues from a particular asset to total revenues of that particular firm.

$$\text{Specialisation Ratio (SR)} = \frac{\text{Annual revenues for Asset}_i}{\text{Firm's annual revenues}}$$

This ratio show the importance of position of businesses key product market in relation to other firm. SR has been highly adopted as a methodology for measuring and accessing diversification since it is computable and easily understandable as argued by Pandya and Rao (1998). According to Chatterjee and Blocher (1992), SR is a very key impartial measure, particularly when similar sources of data is utilized to provide information pertaining every firms' sales.

1.1.2 Financial Performance

Financial performance is the capability to operate profitability, efficiently and effectively, withstand environmental threats while exploiting the existing opportunities and ability to grow (Stoner, 2003). Another definition is presented by Samadquadri (2013) who presents financial performance as a degree to which a business can utilize the assets to realize increased revenues and turnovers. More so, financial performance is used as an overall mode of evaluating the general financial health of a firms over an era, is highly used to evaluate and draw comparisons of firms either in similar industry or industries and sectors that are related. Boru (2011) adds that financial performance is important element as it shows whether a firm is profitable or making losses.

Stoner (2003) argues that there exists different techniques of measuring financial performance, but the common trend is that the measure are based on aggregation. He advanced his argument by saying that no single financial performance measure should be considered solely. Stoner (2003) concludes that revenue realized from business operations, aggregate unit sales, cash flows realized and operating income can well be utilized used. Kent (1994) argues that measures of

performance comprise of indicators including growth of revenue and profit, return on assets and return on injected capital. Hitt, et al. (1996) point out that financial ratios tool can be used to enable owners of business measure how their businesses are doing in regard to financial performance. They further argue that when computed in a timely and correct way, financial ratios obtained from such computations can offer vital and useful information to the owners of business which informs their decision making process. Hitt, et al. (1996) view financial centered performance based on three major indicators namely return on equity, return on assets and finally return on sales.

1.1.3 Asset Diversification and Financial Performance

According to Perez (2015), the effect of assert diversification on financial performance remains theoretical and differing in conclusions and as a result, it triggers scholarly debate. Perez (2015) infers that those commercial banks which do have higher trading assets percentage normally have with them higher risks. A similar argument is shared by Lins and Servaes (2002) who assert that firms which have more diversified assets tend to have less profits than focus firms. Muñoz and Sanchez (2011), while examining diversification from geographical aspect, assert that there is negative link existing between profitability of a firm and its market expansion to cover large geographical area.

On the other hand, Ishak and Napier (2006) argue that diversification does not result to reduced firm value, but rather, value of a firm tends to increases through increased diversification. Booth and Fama (1992) acknowledge that the incremental revenues as a result of diversification are higher for less-capital stocks than for other assets. This is because small-cap stocks have volatile returns and their risk is easily diversified away, as they have low correlations with other assets.

5

Same views are advanced by Chakrabarti et al. (2007) who argues that diversification contributes to improving performance in developing institutional environments. However, the authors point out that diversification causes a negative effect on the performance in those institutional environments which are highly developed. Matsusaka (2001) argue that businesses are motivated to undertake diversification the achievements from pursing higher organizational fit overshadows the expenses.

This is contrary to Patrick (2012) who acknowledges that there exists no consensus about the positive, negative, neutral influence of asset portfolio diversification on financial performance. Same argument is held by Doaei et al. (2012) who point out that the existence of compelling forces might enhance the probability of discovering a non-significant diversification-performance association. As a result of the fact that there isn't perfect indication concerning which asset diversification is superior, general diversification by firms is often claimed to offer superior value (Markides & Williamson, 1994). Additionally, research done aimed at revealing the effects of different types and degree of diversification on the value of businesses has led to a curvilinear link between the value of the firms and diversification (Palich, Cardinal & Miller, 2000). Given that the effect of asset diversification on financial performance remains contradictory, and under investigated in the banking context, this study focused on establishing the effect of asset diversification on commercial banks financial performance. It was expected that a positive relationship exist between asset diversification on financial performance of commercial banks.

1.1.4 Commercial Banks in Kenya

There are 43 registered banks operating currently in Kenya. The Kenyan Banking industry is controlled by Companies Act (Cap 486), Banking Act (Cap 488), Central Bank of Kenya (CBK) Act (Cap 491) and additional regulatory guidelines originating from CBK (PriceWaterhouse Coopers Consultants, 2012). Banking industry has experienced tremendous diversification levels spurred by the sector liberalization and deregulation in the last two decades (Mwau, Tarus & Kosgei, 2015). This is especially so because of the competitive pressure that has resulted from non-bank institutions for example SACCOs entry into the sector as well as the resulting reductions in cost efficiencies and profit margins earlier associated with the intermediation business. While banks have resolved to creative diversification strategies to overcome the profit compression and competition pressure, a number of questions central to this practice still linger and which this study sought to address was how asset diversification affect commercial banks financial performance in Kenya. Adding to this Mwau and Kosgei (2016) argue that commercial banks in Kenya have posted good financial performance while others have not as indicated by ROA and ROE. This is despite allowing banks to venture into a range of businesses while maintaining the traditional intermediation business. For example, all commercial banks in Kenya have added mobile, internet and Agency banking services in their lines of business so as to uphold competitiveness in operating market.

According to Kato, Otuya, Owunza and Nato (2014), there had been improvements in financial performance of commercial banks while others have recorded loses. For instance, three commercial banks in Kenya have been placed under receivership by CBK over a period of less than one year. These include Dubai Bank Kenya, Imperial Bank Limited (IBL) and Chase Bank. This triggers concerns on asset diversification by banks. This has been attributed to increased

asset diversification without certainty on the expected outcome (Mwakio, 2015). Mwakio (2015) point out that these setbacks in the banking sector are eroding depositors' confidence in the mid and smaller tier banks, as a result, weakening their deposit franchises and potentially curbing any contagion effects one may anticipate.

1.2 Research Problem

Asset diversification determines 93.6% of the return of a portfolio according to Gary (1986). Diversification and its implications for performance is now drawing considerable attention from scholars, policymakers and donors, because of the relevance of the theme to policy and development action. Chakrabarti et al. (2007) put forth an argument that diversification of assets contributes to improving performance in developing institutional environments. Adding to this argument, Ishak and Napier (2006) point out that diversification doesn't lower value of firm, however, the firm value escalations with increased diversification levels. Chakrabarti et al. (2007), however warn that divergence of assets adversely effects performance in those institutions which are more established. Hitt, et al. (1996) acknowledge that numerous businesses' poor financial performance is due to assets that are performing poorly. They conclude that poor performance arising from assets performing poorly is repeatedly linked to strategic errors committed in the acquirement progression.

The banking industry in Kenya has experienced a tremendous growth resulting from sector liberalization and deregulation. This together with entry of nonbank institutions has resulted into very stiff competition. In order to survive in this competitive environment banks have resulted into diversifying their assets in order to remain profitable. Perez (2015) points out that primary goal of banks is obtaining profits. Commercial banks make profits from the many types of assets they possess. However, Perez (2015) acknowledges that some of these assets can be non-

productive in terms of generating income directly. He concludes that revenue obtained from assets that trading is unstable and bad trading eventuates to losses. Therefore banks need to classify investments in subgroups depending on performance variability attributed to various market situations and they need to examine the past history and projected outlook in terms of risk, return and correlation of each of those investments.

In the recent past, financial performance of commercial banks in Kenya has raised concerns following the placing under receivership of these three commercial banks in over a period of less than one year. The debate on asset diversification by the banks has further been raised with various stakeholders questioning the effectiveness of asset diversification exercises. For example most banks have relaxed the requirements for issuing personal loans to their customers in many cases requiring only the proof of permanent employment with the salary being the security for the loan as opposed to the past where one was required provide a tangible asset for security. This has resulted from the need to diversify their sources of revenue. Investigation into the impact of asset diversification on the financial performance of Kenya commercial banks is critical in determining whether asset diversification has an impact of either reducing or increasing the overall financial performance of the banks.

Oyedijo (2012) studied how diversification of product and market affected the corporate financial growth and performance of selected Nigerian companies. The regression analysis results implied that diversification done based on relationship significantly impacted on performance whereas diversification which was unrelated negatively an insignificantly affected growth and performance. Oyewobi et al. (2013) investigated how firm diversification affected construction firms performances in South African and revealed that the firms recorded more profit margin. Wafula (2014) did a study on the diversification effect on portfolio returns

focusing on mutual funds in Kenya. The study deduced that diversification has a positive effect on the portfolio returns of mutual funds in Kenya. Magambo (2013) did a study on the effects of asset diversification on micro finance institutions financial performance in context of Kenya. The findings showed that asset diversification has a positive effect on the fiscal performance of the studied micro finance institutions. According to scholar's understanding, no research had been conducted on how asset diversification on the banks financial performance of banks. Hence, the study sought to fill this knowledge gap by seeking answers to this research question; what is the effect of asset diversification on the financial performance of commercial banks in Kenya?

1.3 Research Objective

The objective of this study was to establish the effect of asset diversification on the financial performance of commercial banks in Kenya.

1.4 Value of the Study

The findings of the study are valuable to commercial bank managers as its focus is on the effect of asset diversification on the financial performance trend of Kenyan cbanks in Kenya. The findings informs the managers on necessary considerations to make while selecting the degree of asset diversification.

The findings of this study are valuable to the policy makers and the government institutions that regulate the banking sector in Kenya. Through this study, they are provided with insights on effect of asset diversification on banks performance hence enabling them to enact and implement policies that regulate asset diversification in the best interest of the banks.

Finally, the study contributes to the broader realm of academic research as it adds significance to academic investigations and research in field of asset diversification. Upcoming researchers would make references using this study, as well as suggesting future research activities that can be explored.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presented literature reviewed that relates to asset diversification and performance of commercial banks in Kenya. It discussed the key theories underlying asset diversification, determinants of financial performance, empirical review and expounds on the research gaps on these assets and financial performance.

2.2 Theoretical Review

The theories that supported this study are presented in this section which included on Modern Portfolio theory and Arbitrage Pricing Theory.

2.2.1 Modern Portfolio Theory

Modern Portfolio Theory (MPT) originates from the Markowitzs (1952). MPT is an investment theory that tries to maximize returns expected from portfolio for a specified risk arising from such portfolio, or equally lower risk for a particular degree of anticipated return, by selecting cautiously the quantities of different assets. This theory suggests that investors realize better portfolio performance through allotting the investments they have into diverse financial securities classes and other segments that are not expected to react similarly if new information emerges. Solnik (1974) extends this theory to global context and points out that diversifying globally, as opposed to a strictly domestic portfolio, will lead to optimization of the risk-return tradeoff. Therefore, investors should allocate their money into assets exhibiting low return correlation.

Financial sector has practically applied this MPT to a great extent (Sharpe, 1964). MPT is a mathematical construct of diversification idea in investing, whereby the goals are to ensure that investors can succeed in selecting investment assets that have jointly lowest risks than a sole asset. Given that this is achievable can be perceived intuitively since assets that are not similar often change in value in opposite ways. According to Mandelbrot (2004), investor need to approximate anticipated returns and variance that may be attributed to every portfolio and then select the one which has is viable based on those parameters.

This theory was used to anchor this study because of applicability on effect of asset diversification on the financial performance. The theory acknowledges diversification as important for risk mitigation and increasing returns. The theory advocates for evaluation of portfolio diversification for maximization of returns. According to the theory, spreading investments throughout stocks that are not related can maximize firm's potential revenues irrespective of whether there is economic growth or not.

2.2.2 Arbitrage Pricing Theory

Arbitrage Pricing Theory (APT) was advanced by Ross (1976). According to APT, the returns likely to be obtained from a financial asset depends highly on its beta. This beta is a measure of the current association between factors that relate to one another in a company and which have an impact on the financial performance as well as the entire market were the company operates. APT asserts that there the expected returns from an asset are positively associated with and their covariance with other random variables. The covariance obtained measures that risk that encountered because of diversification by investors and which is unavoidable. The gradient of

the slope implies the linear association existing between the projected earnings while the covariance implies risk premium.

The key attribute here is the combination between return rate of a portfolio that is efficient and an individual asset. According to APT, a high correlation between the return rate from a particular portfolio and an asset can imply that worthwhile to claim risk premium that is high of such asset (Sciubba, 2006). Based on an investor's long-term and short-term goals different investment strategies could be planned using APT. Arbitrage Pricing Theory (APT) has been adopted in this study because backs up the link between asset diversification and the performance of firms. Arbitrage Pricing Theory advocates for diversification as an investment strategy to firms which can lead to increased returns. Arbitrage Pricing Theory, however points out that diversification are related to risk hence need to ensure that diversification of assets with critical evaluation.

2.2.3 The Black Litter Man Theory

Black & Litterman (1992) proposes portfolio models applicable for portfolio construction. Litterman (2003) suggests that assets allocation can be divided into two different types of decisions: Asset distribution between classes of assets that are not the same for example stocks and bonds and assets allocation within one class of assets for example sectors.

The theory seeks to address the barriers that investors encounter as they apply modern portfolio theory. The assumption made is that allocation of asset of a representative agent need to be proportionate to the value of market of the existing assets and then adjusts this to ensure an investor attains a bespoke asset distribution.

2.2.4 Capital Market Theory

Capital market theory is derived from Markowitz portfolio model in 1952. It attempts to give an explanation and prediction on financial/capital markets development over a period of time, grounded on mathematical model. Capital market theory strives to value assets, majorly shares and the main assumptions are; every investor is efficient and they do lent and borrow money at rate which is risk-free, entire assets are considerably dividable, investors have same time horizon, no transactions and taxes and there exists same likelihood of for results or all investors, inflation does not exists and capital markets have no mispricing

Any asset that has no risk has a zero variance for its assumed degrees of returns. Therefore, adding asset that have no risk to the portfolio with assets that are risks leads to reduction in expected returns by the investor. Since assets that are risk free have no risk, addition of risk free asset into a portfolio results to variation is the overall portfolios standard deviation.

2.3 Determinants of Financial Performance

According to Helfat and Eisenhard (2004), businesses who trail interrelated diversification attempt to exploit economies of scope by sharing human and physical resources along alike business lines whereas diversification that is not related is pursued by businesses to realize economic advantage by spreading financial resources and capital efficiently in the market. The determinants of financial performance discussed include; financial assets, loans, other investments and cash equivalents.

2.3.1 Financial Assets

According to Laurie (2013), financial assets are intangible asset whose value is a derivative of contractual claim, such as stocks, bonds and deposits of a bank. Financial assets, mostly include

financial claims which originate from contractual dealings ventured into when funds are provided to an institutional unit by another. Such contracts initiates creditor relationship with debtor and asset owners acquire unconditional claims on economic resources of other institutional units. Laurie further notes that financial assets are easily liquidized compared to other tangible assets including real estate, commodities, and are tradable on financial markets. Laurie (2013) concludes by saying that financial asset increases a company's worth. This is in line with Cernas (2011) who affirm that increase in company's financial assets, results to increase in its net worth. Cernas (2011) adds that a company with multiple assets also gets to depreciate the value of those assets, which is used as a deduction during tax reporting.

Blume and Friend (1975), while discussing on private investor portfolio diversification, point out that there a large pool of private investors who still have not diversified portfolios of financial assets that are risky even with the outlooks from the theory of capital asset pricing. Same views are advanced by Douglas (2014) who argues that lack of diversification in firms is as a result of; diversity in anticipations of investors' vis-à-vis risks and revenues and; investors' incapacity to properly sum up individual assets risks as well as the entire portfolio risks.

Foster (1975) reports that financial assets which are more speculative have the capability of resulting to increasing returns in the short-run, and with similarly higher unpredictability as to the value they possess in the long-run. On the other hand, Marcia, Otgontsetseg and Hassan (2014) argue that abrupt and unforeseen decline in prices of financial asset can result to the financial calamity. While focusing on unclaimed financial assets, Asha (2014) asserts that unclaimed financial assets positively correlate with financial performance of commercial banks.

2.3.2 Loans

Perez (2015) acknowledges that loans ranks as the key and the most valuable types of asset that is held by banks because it's from them that banks receive income. Same views are raised by Bismark and Chengyi (2015) who argue that the largest assets the source of income and asset for bank is loan portfolio. According to Morsman (2003), loan portfolio also constitutes the major asset and the predominant basis of income. Globally, banks grant loans to customers as a way of enhancing financial performance (Bonin & Huang, 2001). Perez (2015) notes that banks were classified based on the asset size they have, the key trend that might be exhibited is larger proportions loans. Other interesting trends is that loans are not very much valued by for larger banks, reason being such large banks diversify their asset portfolio to a large extent. A review of the work of Nduwayo (2015) on effect of loan on the financial performance of Rwandan commercial banks in Kigali shows that well managed loans are main source of positive financial performance.

According to Dang (2011), loan portfolio quality defines how profitable a banks can be. Dang notes that loan portfolio has a positive relationship with bank profitability when the loan portfolio is of high quality. However, Dang (2011) warn that the main risk that a banks can encounter are the losses that arise from non-performing loans. Koch and MacDonald (2000) add that in the past, problems associated with loan portfolio have caused many banks to post loans and even fail. Hence they argue that managing loan portfolio effectively and the credit endeavors of a bank are key to its soundness and safety. Due to this, many banks have focused their attention to managing loans so as to ensure that there are low levels of nonperforming loans since high levels of non-performing loan have an effect on the banks profitability. When a banks recording low level of non-performing loans comparative to the total loans, this is an implication

17

of good health of loans portfolio of bank. It I recommended that the ratio should be as low as possible as it's an implication of better performance of bank (Sangmi & Nazir, 2010). Amba and Almukharreq (2013) contend that the requirements for delinquent loans decrease loan portfolio total of banks and consequently reduce the interest attained on such assets. These views are supported by Trujillo-Ponce (2013).

2.3.3 Cash and Cash Equivalent

According to Harford and Haushalter (2000), cash and cash equivalents are presented on company's balance sheet and shows the worthy of company's assets that are already in cash or can be straight way changed into cash. Cash and cash equivalents' constitutes asset of a business, presented on the financial statement revealing the business financial situation and comprises of currency a firm holds (in hand and in bank accounts) and cash equivalents. As pointed out by Harold (2014), cash and cash equivalents comprise of coins, currency, petty cash, checking and savings accounts, money market accounts, checks that have not yet been banked despite being received and investments that are highly liquid and short-term, having maturity period not exceeding three months from the buying time. Harold (2014) further argues that cash and cash equivalents are leading in terms of the ability to be liquidized in comparison with all other assets. Therefore, cash equivalents assets are readily changeable into cash and are different compared to other investments, they have maturity of within three months whereas, their existence is short-term of about twelve month or a lesser period, different from long-term investments which matures with a period exceeding twelve months (Catherina, Torng-Her, Haimin & Da-Quan, 2013).

Opler, Lee, Rene and Rohan (2001) assert that the values of cash and cash equivalents held by company is vital and needs to be in large volumes and incorporated in operating strategy of a company. They argue that companies that have large cash and cash equivalents bases excel in hard and turbulent periods when expenses of the companies are highs and sales relatively low. Dittmar and Mahrt-Smith (2007) point out that high cash reserves are, too, an implication that a firm is geared towards important gaining due to the savings made. They also argue that, firms that have higher cash on hand are highly targeted for takeover since excess cash they possess can be using in helping customers to fund their procurements. They conclude that having very high reserves of cash can also signify poor management strategy of putting such cash into income generating investments.

Harford (1999) shows that those companies that have high levels of large cash reserves use more of it in making acquisitions. Further, Harford, Mansi and Maxwell (2005) advance the argument by arguing those firms that are managed in poor ways waste their cash as they procure items. Wayne and Megan (2003) argue that the pressure of disciplining managers and administers is inversely proportional to the size of cash holdings and high cash reserves have a tendency of seductive   managers to spend available cash in different investments even when they are not profitable. Wayne and Megan (2003) further notes that management of firms that have a lot of cash have an advantage of funding expenditures into capital without draining their reserves. The advantage is that reliance on internal funding is less costly as compared to external financing.

2.3.4 Other Investments

Baird (2013) argues that other investments can contribute towards increased risk and or return traits of an investment collection. Baird (2013) further notes that investors that are employing

substitutes may be aiming at realizing a certain degree of absolute income. González (2004), while investigating on how equity investments affect banks' profitability, established that there was banks' equity investments improved the overall income and interest rate edge of banks. Fremond and Capaul (2002) note that the investment criteria has been altered considerably and corporate investors appreciate the security trait and the importance of having a investment assets pool and spreading them by pooling together investment with varying levels of risk can be reduce by a trade-off with return.

According to Oyatoye and Arileserre (2012), investing in different investments improves a company's chances of earning a good return although not guaranteed because of the uncertainty facing the investments. Construction of an efficient investment portfolio enables the firm to diversify its risks thereby improving the earning ability of the portfolio (Oyatoye & Arileserre, 2012). They further argues that it is very important for any sector to endure and progress so as to mitigate potential underwriting losses and achieve increased profits. Mukati (2012) argue that the choice by a business of a firm spread its assets is carried out if the advantages that may arise from diversification outdo the costs, and such enables a business or a firm to remain focused in case of negative deviation.

2.4 Empirical Review

Empirical review involves examination of informations and researches done in the past relating to a specific topic. It's used to establish detailed understanding and comprehension of aspects a researcher is investigating in the research. Empirical Review also shows that the problem being investigated hasn't been carried out in the way proposed by the researcher. A number of studies were been done both internationally and locally related to asset diversification and financial performance.

2.4.1 International Evidence

Maurizio, Tiziana, Dionigi and Ciorstan (2009) inestigated effect of diversification on capital structure. The aim was to analyze the financing strategies of multibusiness firms. Cluster analysis method was utilized to establish if there were cases of any structural variances within the sample. The measure of diversification was through assessing the segments of firm's in order to determine the degree of product diversification, sales realized per segmental correlations among segments. The study established that the degree and direction of diversification results into altered financial performances of an institution. The authors found out that diversification whether related of not related adversely affected debt. The research established that strategy negatively influence on leverage. However, with transaction costs, companies doesn't alter their levels of debts automatically but use target adjustment model.

Kahloul and Hallara (2010) carried out an investigation on how diversification risk and performance were related. Sixty nine (69) large firms in France were target for this study and the study period was from 1995 to 2005. The methodology was centered on both univariate and multivariate analysis. Sample included all 69 non-financial firms' selected based on size, total period and industrial activity. The data collected was cross sectional and time series hence regression analysis technique was employed to analyses panel data. The resulting findings nullified the diversification-performance relationship. The finding further revealed that total risk was linearly unrelated with diversification. However, specifically, ownership structure has the potential of intervening on the association between performance and diversification as well as that of diversification and risk. There is a possibility that ownership nature can be relevant in having a detailed knowledge of diversification, risk and performance relationships.

Janda and Svárovská (2010) investigated commercial Microfinance Investment Funds (MIVs) performance on monthly basis and their currency sub-funds between 2006 and 2009. The methodology of the study was use of separate time series analyses to analyse the data. So as to have perfect trends exhibited especially on equity indices, a Chow test was used. The period this study tracked financial markets development and performance was three years after rising stock prices were witnessed and huge sell outs because of uncertainty brought about by financial crisis experienced globally. The obtained findings showed that investing in microfinance investment funds was a worthwhile opportunity for the portfolio variation though there was no any significant correlation with emerging capital markets. However, recession experienced globally triggered by economic crisis my result to hinder progress towards growth of the investment sector. Though analysis was spread across the two periods of the business cycle, recession wasn't over especially in developing economies by the year 2009. This brings the question whether the micro finance remains invulnerable to global financial crisis.

Oyedijo (2012) researched on how strategy of product-market diversification affected growth and financial performance of selected Nigerian companies. The study adopted descriptive research design and involved used correlation test, independent sample test and also multiple regression. The regression analysis results obtained signified that linked diversification impacted on performance significantly whereas diversification which was not related insignificantly and negatively influenced growth and performance. However, the researcher recommended that more time scope was required to investigate the existing difference in performance prior to diversification and after diversification minimum being seven years.

Oyewobi et al. (2013) investigated how diversification of businesses affected performance of construction firms in South Africa. The study employed case study, data was collected using

22

interviews guides for a five year period. The studies dependent variable was performance measured using Return on Capital Employed (ROCE), Profit Margin (PM) and Return on Total Assets (ROTA), while predictor variables were Geographic Diversification (GD) and Product/ Service Diversification (PD). Intervening variables considered included were capital structure, age of firms, size, and technical ability of the firms. The findings were that construction firms recorded more profit margin. However the study failed to specify the criteria used to identify and separate large construction companies from newly upgraded companies.

2.4.2 Local Evidence

Maina (2013) investigated the product diversification effect on financial performance of microfinance companies. Main aims of this study was to identify the types of diversification in the Kenyan microfinance market and how they relate to performance. The study adopted a descriptive survey design using secondary data obtained from financial records of Microfinance institutions and CBK. Major research findings indicated that the diversification indicator, ROA indicator and ROE indicator were on a growth pace from 2008 to 2012. However the study failed to identify the nature of product diversification whether horizontal, vertical or corporate since each one of them has its own impact on the financial performance.

Mwengei (2013) assessed the factors that leading to Non-Performing Loans within commercial banks. Other objectives were to determine bad loans trend, and how formation of CRB influenced the trend, and finally, to establish action in place to mitigate risks associated with NPLs. The study covered 43 commercial banks operating in Kenya. Research design adopted was descriptive research design while secondary data for five year period 2008-2012 was obtained from form CBK annual reports and journals. Data was analyzed using both inferential and descriptive analysis techniques. Presentation was made using tables, graphs and charts. The

study found out that CRBs positively contributed towards lowering levels of NPL. The study further established that prevailing macro-economic aspects resulted to increased levels of NPLs, high interest rates and diversification were major factors influencing rate of NPLs. High levels of inflation, resulted to increased prices and consequently increased interest rates. However during this period of study very little information was being shared between banks and credit reference bureaus due to the nature of laws that were in place with regards to customer information confidentiality.

Ndumia (2011) investigated systems of asset management in the Kenyan Government using focusing on finance ministry. The research adopted case study design with population of interest for the study being the employees from the ministry of finance. Stratified random sampling was employee in choosing 70 respondents. Both measureable and qualitative data was used in the study gathered using semi-structured questionnaires interviews guides. The study found out that asset management in the government was not integrated across departments and therefore procurement department was most entrusted with the role of asset management. The study observed that previous AMS implementation process attempt did not observe the set timelines due to lack of policy, inclusion in implementation process and 'buy in' by the employees. However poor integration of activities within departments, lack of standardization in categorization/cataloguing of assets, lack of AMS flexibility in its operation and poor design of the asset management model were challenges mentioned to hamper AMS implementation process.

Kiplagat (2014) investigated the asset allocation influence of pension funds' financial performance, a context of Kenya. The study adopted a descriptive survey and utilized a sample of 40 schemes drawn from a population of 1,232 schemes in Kenya. The findings of the study

showed that allocation of asset caused 58% of the variability of fund performance and that 42% was due to other factors such as the manager's selection, timing of investments and securities selection within an asset class and the management style adopted by the fund managers of the fund. However the study had the following limitations; it was restricted to data of pension funds managed by few fund managers thus was restricted to schemes under managers who use similar valuation and performance calculation methods. It also excluded individual pension plans which cater for persons who do not have access to occupational pension schemes and opt to make personal contributions to the plans.

Anjichi (2014) did a study to establish Asset and Liability Management (ALM) effect on banks financial performance. Descriptive design was used in this study and the 43 commercial banks in constituted the study population. Secondary data was derived from CBK reports. SPSS version 20.0 was used for data analysis. Students t-test at 5% significance level were used in the study and correlation coefficient (r), analysis of variance (ANOVA) and coefficient of determination were calculated. The factors identified under AML that effect financial performance were grounded on CAMEL approach which includes capital adequacy, management efficiency, asset quality, liquidity and operational efficiency. The revelations were that CAMEL factor impacted on financial performance significantly.

Nabalayo, Muturi, Nyang'au and Nyamasege (2014) assessed the effect of liquidity on profitability of Kenyan banks. Descriptive research design was used as the study's research design and panel data used for the 43 banks which constituted the study population. The study period was five years from 2009 to the year 2013. Secondary data was used and was generated from financial statements and analyzed both descriptively and using inferential statistics. The findings were that liquidity banks' profitability had a positive and significant association. The

study however concentrated on commercial banks only leaving out other non bank financial institutions like MFIs and SACCOs who are major players and competitors in the financial sector.

Moraa (2014) analysis of profitability of leading commercial banks in Kenya whereby the time scope was 2008-2013. Only six leading banks were considered. The study adopted generalized least squares technique to determine how capital, bank assets, quality of assets, loans and deposits on profitability of banks. ROA was used in measuring profitability. The study established that size of banks, ownership, strength of capital, expansion and operations expenses affected profitability or the banks under study significantly. However the study reveals that foreign ownership/share holding enhances the profitability of these banks but the study does not identify in which ways their operations affects the local banks.

2.5 Conceptual Framework

Ngechu (2006) defines conceptual framework as a figure demonstrating how predictor variables and dependent variables link. Dependent variable was financial performance of Kenyan commercial banks measured by return on assets whereas the independent variables were financial assets, loans, cash and cash equivalent, and other investments.

Figure 2.1: Conceptual Framework

<u>Independent Variables</u>   <u>Dependent Variable</u>

```
┌─────────────────────┐
│  Financial Assets   │──────┐
└─────────────────────┘      │
                             │
┌─────────────────────┐      │
│  Loans              │──────┤
└─────────────────────┘      │      ┌──────────────────────────┐
                             ├─────▶│  Financial performance of │
┌─────────────────────┐      │      │  commercial banks         │
│  Cash and Cash      │──────┤      └──────────────────────────┘
│  Equivalent         │      │
└─────────────────────┘      │
                             │
┌─────────────────────┐      │
│  Other Investments  │──────┘
└─────────────────────┘
```
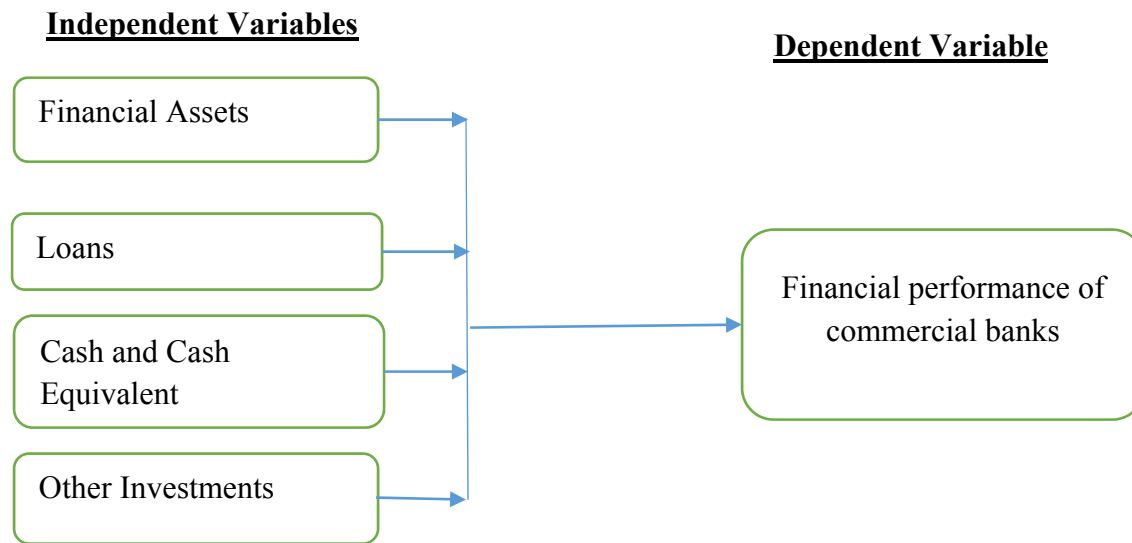
2.6 Summary of Literature Review

This chapter presented the theories which educate on asset diversification and financial performance. Financial intermediation theory offers powerful and intuitively pleasing predictions on how investors can enhance their portfolio performance through ensuring that their investments are allocated into different categories of industrial sectors and financial securities that are not expected to react similarly. Arbitrage Pricing Theory, on the other hand, advocates for diversification as an investment strategy to firms which can lead to increased returns. Arbitrage Pricing Theory assert that assets' projected returns and their covariance with other random variables are positively related. All these theories are under the umbrella of asset diversification and financial performance of banks.

Several studies have been reviewed which are related to asset diversification and performance such as Chua, Kritzman & Page, 2009; Maurizio, Tiziana, Dionigi & Ciorstan, 2009; Kahloul &

Hallara, 2010; Oyewobi et al., 2013; Anjichim, 2014; Kiplagat, 2014 and Maina, 2013. However, these studies did not investigate the effect of asset diversification on the financial performance of Kenyan commercial banks. Although these researches provide valuable insight into diversification, few research works examined asset diversification. Additionally, some studies focused solely on asset allocation and quality, non-performing loans and liquidity. Hence, this study sought to fill the existing gap.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discussed the research methodology used by the study. The sections of this chapter included the research design, population of the study, data collection and data analysis techniques.

3.2 Research Design

Rajendra (2008) defines research design as the linkage and organization of situations for gathering and exploration of gathered data in a manner that intents at achieving the study goals. Rajendra also argues that research plan focuses on the arrangement of an investigation, which leads to the lowering of the chance of drawing the wrong casual inferences from the data. Descriptive research design was used justified by its ability to enable researcher to establish the phenomenon under study without any manipulation. As argued by Polit and Beck (2003), descriptive research design allows for determination of current situation of a phenomenon without manipulation.

3.3 Population & Sample

 This is the population, a researcher or investigator aims at generalizing study finding to (Mugenda & Mugenda, 2003). It is the entire spectrum of a process or system researcher id interested in (Johnston & VanderStoep, 2009). The population studied here was 43 licensed Kenyan commercial banks (Appendix I).

Central Bank of Kenya has classified these banks into 6, 15 and 22 large, medium and small sized banks respectively whereby the classification is based on capital, asset size, market share and deposits. Since this population is small, data was collected from all the banks. This study used a census and therefore there was no sampling. Mugenda and Mugenda (2003) said that a census is suitable for making inferences in cases where the study population is small in size.

3.4 Data Collection

This study collected secondary data. According to Kothari (2004), secondary data is already gathered and available, which has already been collected by someone else. The secondary data on financial performance and asset diversification was gathered from commercial banks' annual reports. The study was limited to a time scope of 5 year starting 2011 to the year 2015. The time scope was considered adequate for inferring on asset diversification effect on the financial performance of Kenyan commercial banks.

3.5 Data Analysis

In this study, quantitative data was collected on financial performance of commercial banks and diversification assets. Then analyzed through descriptive means and inferential statistics. Statistical Package for Social Sciences (SPSS V. 21.0) was the tool that aided in the analysis. The research findings were presented using tables and figures.

3.5.1 Analytical Model

Analytical model is the study technique that determines the link existing between the research variables. Analytical model here was based on Kahloul and Hallara (2010) who researched on diversification, risk and performance relationship and Maurizio, Tiziana, Dionigi and Ciorstan

(2009) who examined effect of diversification on capital structure. The following regression model was used to establish the relationship among the study variables.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Whereby;

Y = Financial performance of banks measured by Return on Asset

X_1 = Financial Assets measured as natural log of banks financial Assets

X_2 = Loans measured as natural log of Net Loan Portfolio

X_3 = Cash and Cash Equivalent measured as natural log of Cash & Cash equivalents.

X_4 = Other Investments measured as natural log of other investments

β_0 = regression constant

$\beta_1, \beta_2, \beta_3$ and β_4 = coefficients associated with predictor variables

ε = Residual (error) term

3.5.2 Test of Significance

The significance in this study was tested at 5% level of significance and 95% confidence level. Incase whether the significance value from the analysis was less than 5% level of significance of the study, the conclusion was that there was significance and vice versa.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter contains the data analysis, obtained results and subsequent discussion in an attempt to achieve the answer to research question. The purpose was to establish how asset diversification affected financial performance of Kenyan commercial banks. Secondary data was analysed and presented using tables and charts.

4.2 Descriptive Statistics

This section presents the descriptive statistics for the data analysed and the derived statistics include mean, standard deviations, skewness and kurtosis values. Table 4.1 below displays results obtained.

Table 4.1: **Descriptive Statistics**

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Financial performance of commercial banks	43	.0257	.0076	.4427	.3614	-.6570	.7090
Financial Assets	43	24.0218	1.2697	.3003	.3614	-.8126	.7090
Loans	43	23.5358	1.3475	.1998	.3614	-.6808	.7090
Cash and Cash Equivalent	43	21.4913	1.6190	-1.7954	.3614	7.4814	.7090
Other Investments	43	19.1568	2.7375	-2.7233	.3614	10.6061	.7090

According to the findings above, the mean value for financial performance of commercial banks was 0.0257. This indicates an average Return on Asset (ROA) of 0.0257 over the study period. Similarly, the mean of the financial assets is 24.0218 units with a standard deviation of 1.2697 between 2011 and 2015. The average loans over the study period was 23.5358. The standard

deviation was 1.3475 over the period of study. Further, the means of cash and cash equivalent, and other investments were 21.4913 and 19.1568 respectively. Based on the standard deviation values obtained, it can be deduced that there was variability in financial performance of commercial banks, and diversified assets which included financial assets, loans, cash equivalent and other investments.

Further, the variables were tested for skewness with the aim of establishing whether they were symmetrical. From results, it emerged that financial performance of commercial banks, financial assets and loans had positive skewness as shown by skewness statistics of 0.4427, 0.3003 and 0.1998 respectively. However, cash and cash equivalent and other investments were positively skewed as shown by skewness statistics of -1.7954 and -2.7233 respectively. More so, all the skewness statistics except for other investments were between 0.2 and -0.2 which implies that the skewness was substantial and the distribution of the data was symmetrical hence normally distributed. The data for other investments was asymmetrical since its skewness was not within this range.

On the other hand, the values kurtosis statistics obtained were -0.6570, -0.8126, -0.6808, 7.4814 and 10.6061 for financial performance of commercial banks, financial assets, loans, cash equivalent and other investments. The values for kurtosis between -3 and +3 imply a normally distributed dataset. From these findings, the data for financial performance of commercial banks, financial assets and loans were normally distributed since their kurtosis values fall within the rage of -3 to +3.

4.2.1 Financial Assets

This study sought to establish the trend in the diversification it financial assets of Kenyan commercial banks over the years of study. Financial assets diversification expressed as a natural logarithm. Appendix II and Figure 4.1 presents the results obtained.

Figure 4.1: Financial Assets
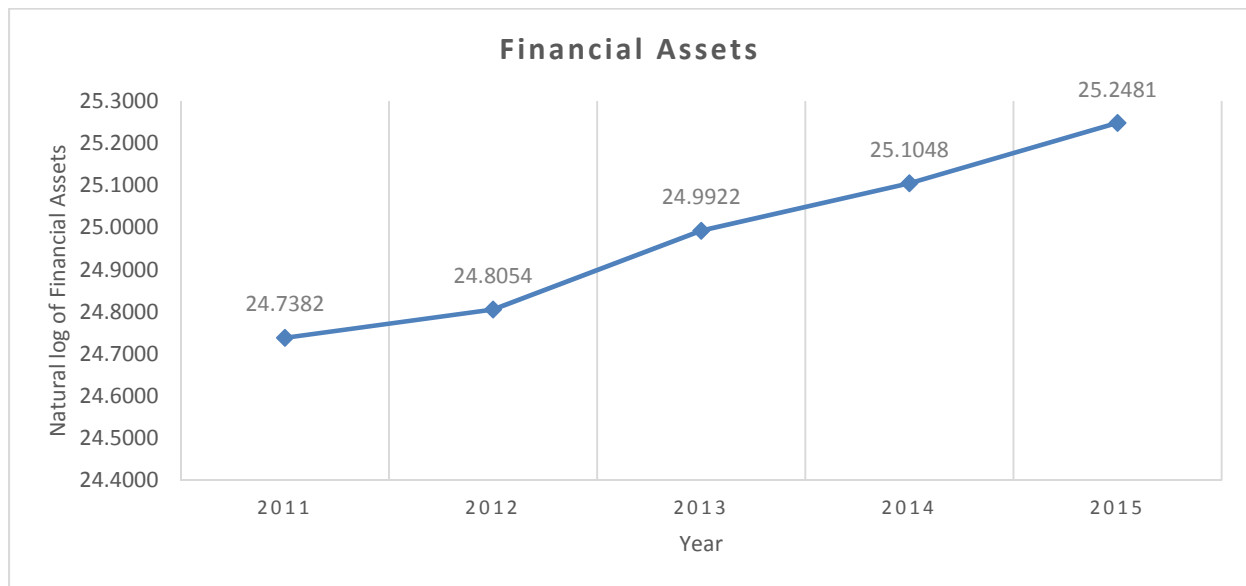
According to the findings, financial asset diversification by commercial banks increased steadily over the study period. Financial asset diversification was 24.7382 units in the year 2011 which increased to 24.9922 as at the year 2013. It was then followed by a further increase to 25.1048 and then to a high of 25.2481 by the year 2015. Generally, the financial asset diversification by commercial banks was high over the study period. This is an implication of increased diversification into financial assets by commercial banks over the study period.

4.2.2 Loans

The study established the trend in the diversification into loans by commercial banks over the study period. Diversification into loans was expressed as a natural logarithm and the findings are presented in Appendix II and figure 4.2.

Figure 4.2: Loans
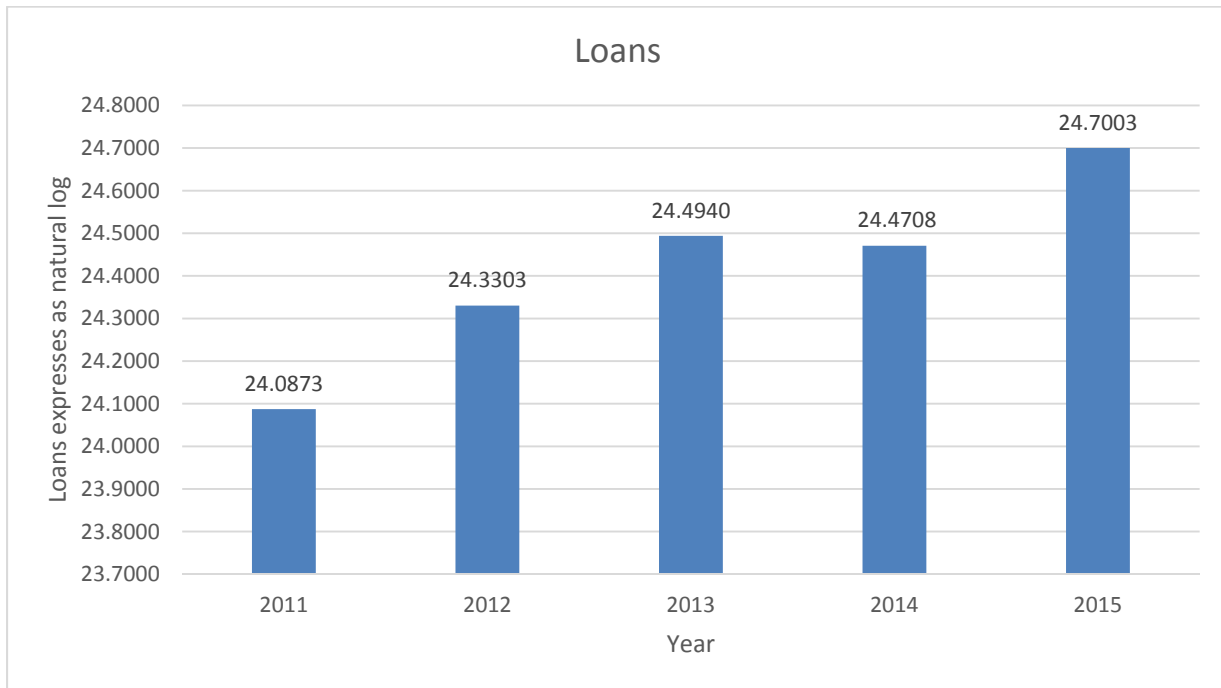
According to the study findings, the diversification into loans was 24.0873 in the year 2011 which increased steadily to 24.4940 as at the year 2013. As at the year 2014, diversification into loans was 24.4708 which increased further to 24.7003 in 2015. This is an indication that diversification into loans had been on increase.

4.2.3 Cash and Cash Equivalents

The study sought to establish the trend in the cash and cash equivalents of commercial banks in Kenya. The cash and cash equivalents was measured as natural logarithm. The findings are as shown in Appendix II and Figure 4.3.

Figure 4.3: Cash and Cash Equivalent
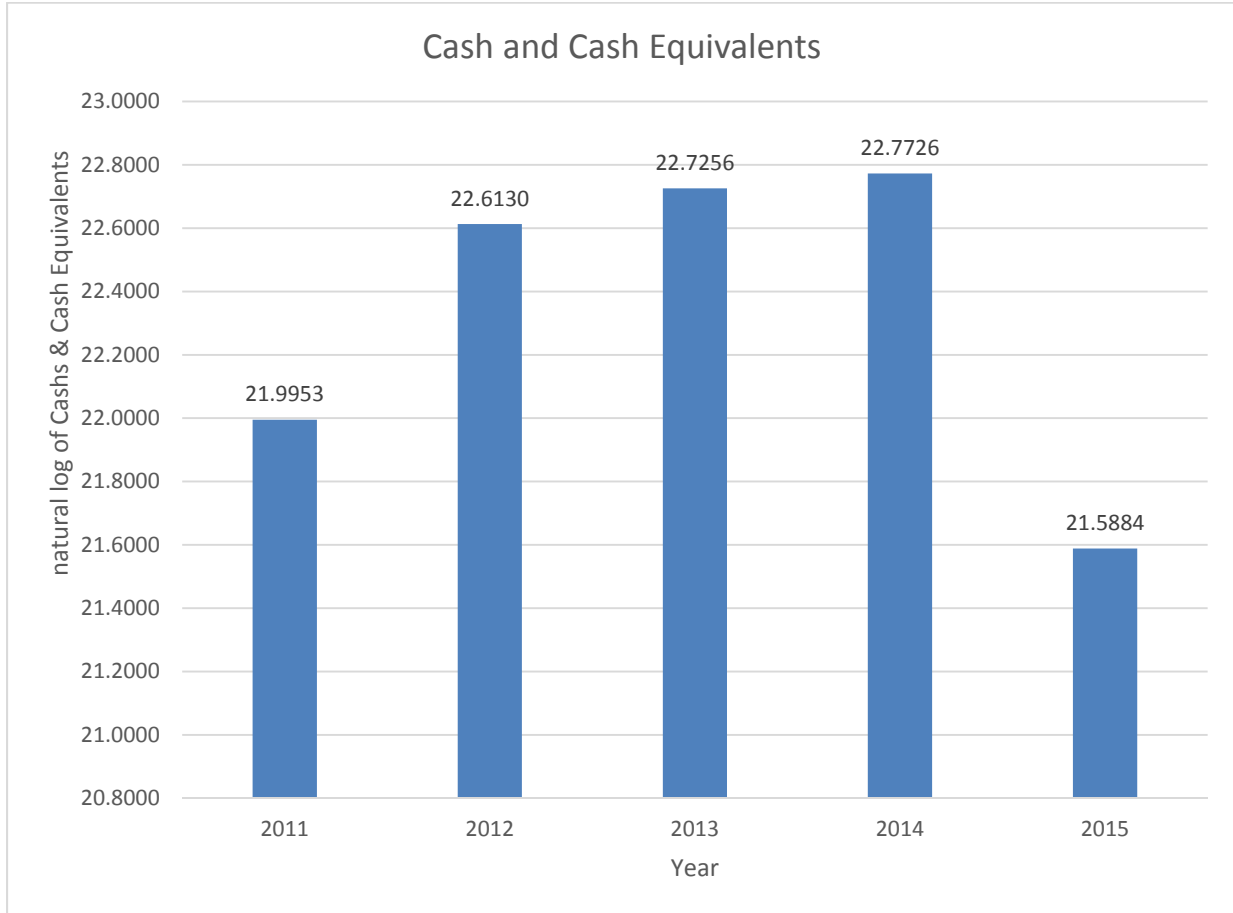
According to the study findings, there was continued increase in the cash and cash equivalents of commercial banks over the study period despite a decline in the year 2015. The cash and cash equivalents were 21.9953 in 2011 which increased steadily to 22.6130 in the year 2012, then further to 22.7726 by the year 2014. However, cash and cash equivalents decreased to 21.5884 in 2015.

4.2.4 Other Investments

This study sought to establish the trend in other investments of listed firms over the years of study. Other Investments was expressed as natural logarithm. Appendix II and Figure 4.4 presents the results obtained.

Figure 4.4: Other Investments
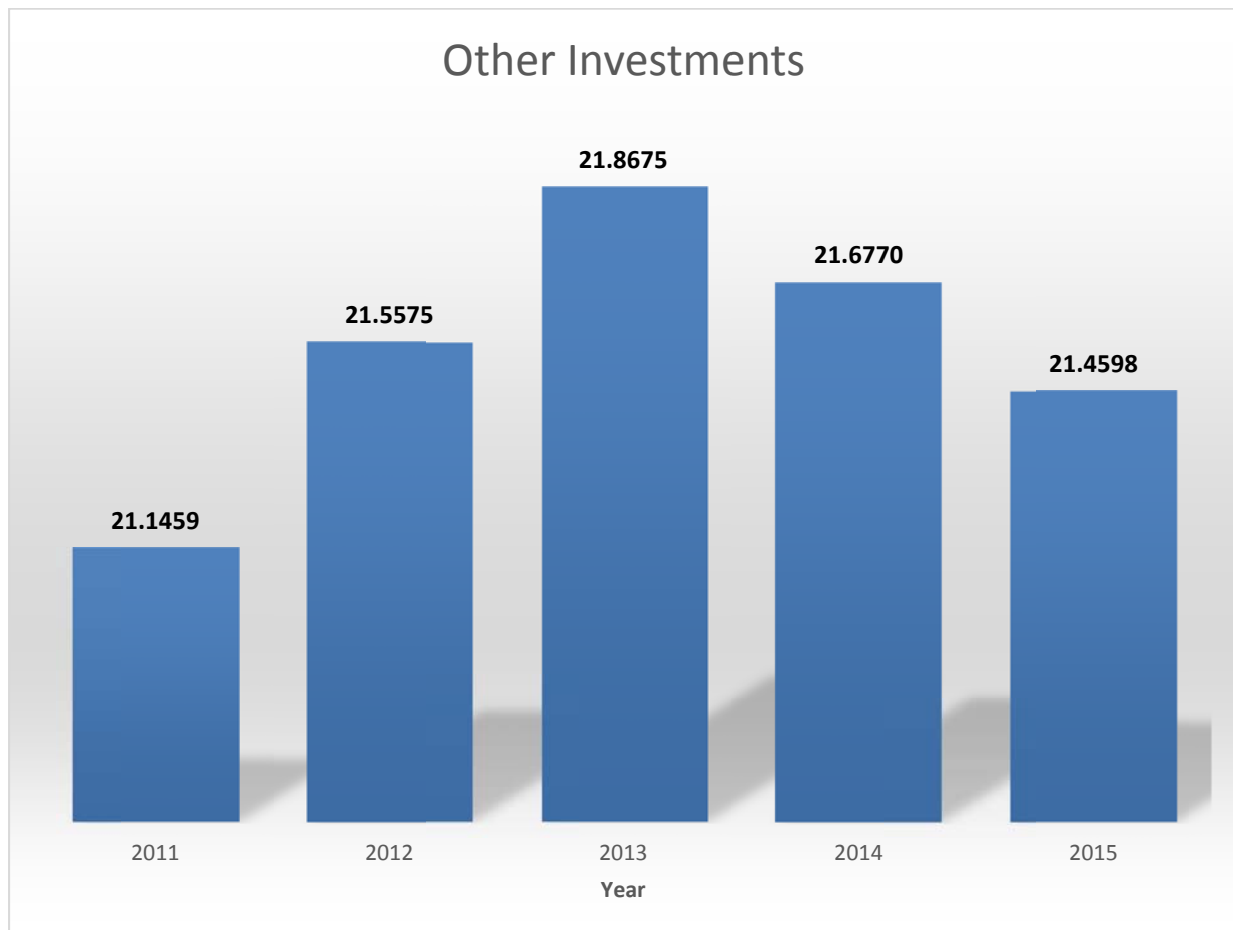
According to the findings, other investments were 21.1459 units in the year 2011 which increased to a high of 21.8675 units in 2013. This was the highest ratio of other investments recorded over the entire study period. Afterwards, other investments decreased to 21.6770 units in the year 2014 and then to 21.4598 in 2015.

4.2.5 Financial Performance

Banks financial performance was measured as Return on Asset. The findings obtained are as shown in Appendix II and figure 4.5.

Figure 4.5: Financial Assets
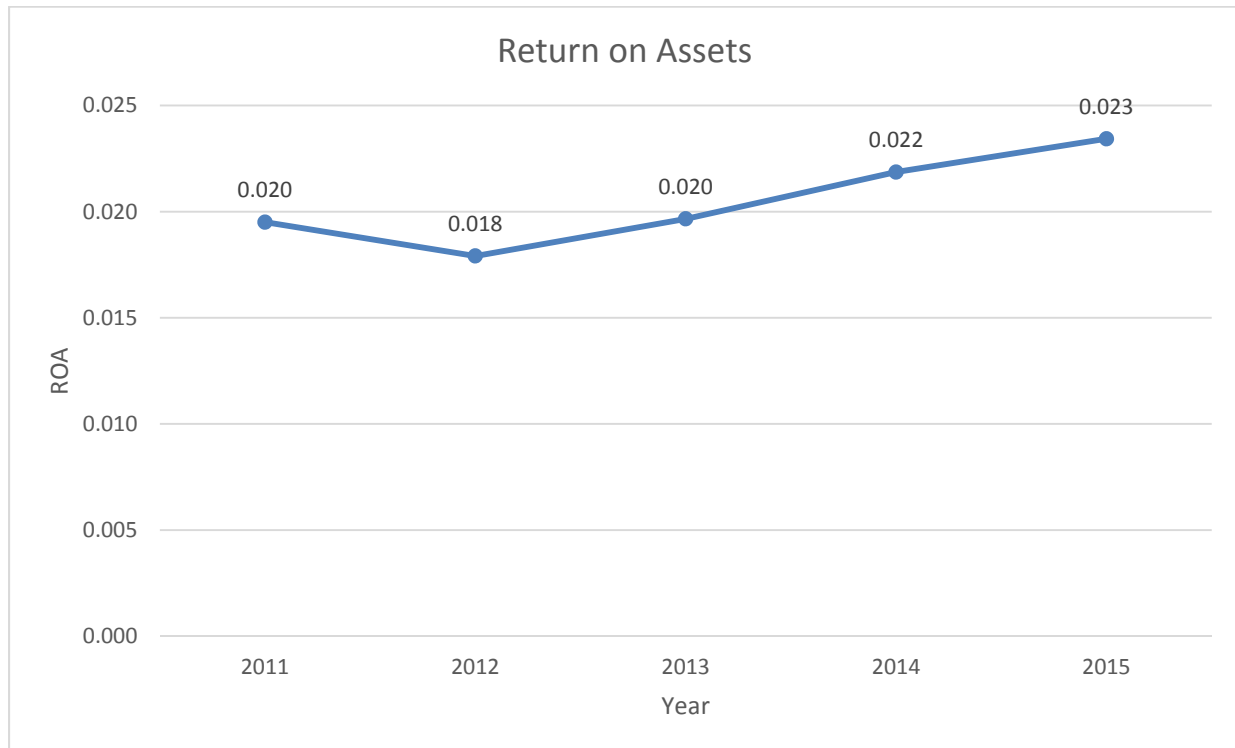
According to the trend presented in figure 4.5 above, the financial performance of commercial banks grew over the study period despite decrease over initial years. From the trend obtained the financial performance of commercial banks at the study commencement year was 0.020. The financial performance decreased to 0.018 in 2012 before increasing steadily to 0.023 by the year 2015. This implies that there has been increase in financial performance of commercial banks over the study period.

4.3 Diagnostic Tests

4.3.1 Test for multicollinearity

Multicollinearity of the variables was examined using tolerance and variance correlation analysis technique. Table 4.2 presents the results obtained.

Table 4.2: Multi Collinearity

Model	Collinearity Statistics	
	Tolerance	VIF
Financial Assets	.539	1.856
Loans	.482	2.076
Cash and Cash Equivalent	.635	1.575
Other Investments	.936	1.069
a. Dependent Variable: Financial performance of commercial banks		

From the findings, the tolerance values obtained for financial assets, loans, cash and cash equivalent and other investments were 0.539, 0.482, 0.635 and 0.936 respectively which is an indication that there were no perfect linear relationship between the predictor variables as the values were not close to 0.

The Variance Inflation Factor (VIF) measures collinearity impact related to regression model variables. VIF values exceeding 10 imply multicollinearity. From the findings, financial assets, loans, cash and cash equivalent and other investments had VIF values of 1.856, 2.076, 1.575 and 1.069 respectively. This is an implication of non collinearity. Hence it can be construed to imply that there was stability of the beta coefficients hence the beta weights were well estimated.

4.3.2 Tests of Normality

The normality of data for the variables was tested by use of Shapiro-Wilk test. This was because Shapiro-Wilk Test is advocated for in scenario whereby sample sizes are lower than 50. Conclusions were based on significance value obtained whereby significance value of the Shapiro-Wilk test exceeding 0.05 implies that the data is normal. The findings are presented in table 4.3.

Table 4.3: **Tests of Normality**

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Financial performance of commercial banks	.098	43	.200[*]	.958	43	.113
Financial Assets	.128	43	.073	.960	43	.142
Loans	.121	43	.115	.963	43	.180
Cash and Cash Equivalent	.136	43	.045	.855	43	.000
Other Investments	.214	43	.000	.748	43	.000

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

According to the findings, banks financial performance, financial assets and loans were normally distributed with Shapiro-Wilk statistics of 0.113, 0.142 and 0.180 which were greater than 0.05, the significance level of the study. Cash and cash equivalents and other investments were not normally normality distributed since their corresponding significance values were less than 0.05.

4.3.3 Autocorrelation

The independence of variables under study was tested using Durbin-Watson Test and the findings are as shown below. The Durbin-Watson Statistic tests if there are serial correlation amongst residuals.

Table 4.4: Test of independence

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.804[a]	.646	.608	.00472811	1.766

a. Predictors: (Constant), Other Investments, Financial Assets , Cash and Cash Equivalent , Loans
b. Dependent Variable: Financial performance of commercial banks

Durbin-Watson statistic values are between 0 to 4, and residuals are uncorrelated if Durbin-Watson statistic is roughly 2. However, value which are near 0 imply strong and positive correlation, while a value close to 4 show that there is a strong and negative correlation. From the analysis, the value of Durbin-Waston is 1.766 was obtained. Given that this value approximately two, a conclusion was made that there no autocorrelation between variables.

4.4 Regression Analysis

In this study, multivariate regression was done to establish the relationship between asset diversification and financial performance of commercial banks. The analysis was undertaken at 5% significance level. Initially, the study sought to establish variation in financial performance which was explained by predictor variables under study by use of coefficient of multiple determinations (R^2). The findings are tabulated below.

Table 4.5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.804[a]	.646	.608	.00472811

a. Predictors: (Constant), Other Investments, Financial Assets , Cash and Cash Equivalent , Loans

As shown in table 4.5, the model had coefficient of determination (R^2) of 0.646. This is a deduction that 64.6% of the deviations in financial performance of commercial banks was jointly accounted for by asset diversification aspects (other investments, financial assets, cash and cash equivalent and loans).

Further, Analysis Of Variance (ANOVA) tested whether the model predicting the relationship between asset diversification and financial performance was statistically significant. The findings are presented in table 4.6 below.

Table 4.6: ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.001548	4	.000387	17.314003	.000[b]
Residual	.000849	38	.000022		
Total	.002398	42			

As shown above, the model predicting the relationship between asset diversification and financial performance of commercial banks was statistically significant. The study found out a significant value of p=0.000 showing a statistical significance relationship.

Finally, the coefficients of the regression model and the findings are presented in table 4.7 below.

Table 4.7: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.09748	.01528		-6.38071	.00000
Financial Assets	.00162	.00078	.27290	2.07433	.04487
Loans	.00179	.00078	.31941	2.29565	.02731
Cash and Cash Equivalent	.00136	.00057	.29096	2.40113	.02134
Other Investments	.00067	.00028	.24190	2.42323	.02026
a. Dependent Variable: Financial performance of commercial banks					

The resulting regression model was:

$$Y = -0.09748 + 0.00162X_1 + 0.00179X_2 + 0.00136X_3 + 0.00067X_4$$

Where Y= Financial performance of commercial banks, X_1= Financial Assets, X_2= Loans, X_3= Cash and Cash Equivalent and X_4= Other Investments. The findings indicate financial

performance of commercial banks would be -0.09748 units holding constant other factors. Further, holding other factors constant, one unit change in financial assets would change financial performance of commercial banks by 0.00162 units. When all the other factors are held constant, a unit increase in loans increases financial performance of commercial banks by 0.00179 units. Similarly, a unit increase in cash and cash equivalent holding other factors constant increases financial performance of commercial banks by 0.00136 units. Finally, a unit change in other investments holding the rest of the factors constant changes financial performance of commercial banks by 0.00067 units. Hence, the findings revealed that financial assets (p=.04487), loans (p=.02731), cash and cash equivalent (p= .02134) and other investments (p=.02026) were significant in predicting financial performance of commercial banks since all the p values were less than 0.05.

4.5 Discussion

A coefficient of determination (R^2) of 0.646 was obtained from the regression analysis which implied that 64.6% of the variations in financial performance of commercial banks was accounted by other investments, financial assets, cash and cash equivalent and loans. These findings imply that diversification into other investments, financial assets, cash and cash equivalent and loans influenced the financial performance of commercial banks by about two thirds. The findings agreement with Chakrabarti (2007) who argues that diversification contributes to improving performance in developing institutional environments.

The study revealed that diversification into financial assets had positive significant relationship with commercial banks financial performance. It emerged that unit change in financial assets would change financial performance of commercial banks by 0.00162 units. These findings concur with Laurie (2013) who assets that financial asset increases a company's worth. Same

findings are supported by Cernas (2011) who affirm that increase in company's financial assets, results to increase in its net worth.

A unit increase in loans was found to increase financial performance of commercial banks by 0.00179 units. This is an implication that diversification into loans affects financial performance of commercial banks positively. The findings concur with Perez (2015) who acknowledges that loans ranks as the key and the most valuable types of asset that is held by banks because it's from them that banks receive income. The finding are further in agreement with Bismark and Chengyi (2015) who argues that loan portfolio constitutes the largest, the major asset and the biggest income avenue for banks. According to Dang (2011), the loan portfolio determines the profitability of banks.

The study revealed that a unit cash and cash equivalent increase, holding other factors constant increased financial performance of commercial banks by 0.00136 units. The findings portray a positive relationship between cash and cash equivalents and financial performance of commercial banks. The findings are in agreement with Opler, Lee, Rene and Rohan (2001) who assert that the values of cash and cash equivalents held by company is vital and needs to be in large volumes and incorporated in operating strategy of a company. They argue that companies that have large cash and cash equivalents bases excel in hard and turbulent periods when expenses of the companies are highs and sales relatively low.

It was noted that, a unit change in other investments of the firms holding the rest of the factors constant changes financial performance of commercial banks by 0.00067. This is an implication that positive relationship exists between other investments and financial performance of Kenya commercial banks. The findings are in agreement with González (2004) who established that

established that there was a positive effect of banks' equity investments on its net income and interest rate. The findings are further supported by Oyatoye and Arileserre (2012) who argue that investing in different investments improves a company's chances of earning a good return although not guaranteed because of the uncertainty facing the investments.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter is about succinctly summarized findings. In addition, conclusions are drawn and recommendations for policy are made. Further, some of limitations of the study are highlighted. Finally, this suggestions are made for further research.

5.2 Summary of Findings

From the multiple regression analysis, a coefficient of determination (R^2) of 0.646 which implied that 64.6% of the variations in financial performance of commercial banks was accounted by other investments, financial assets, cash and cash equivalent and loans. Further, it emerged that, the model predicting the link between asset diversification and financial performance of banks was statistically significant based on Probability value of 0.000.

Regarding financial assets, the study findings established that its diversification by commercial banks was high over the years studied. Further, the findings of the study revealed that diversification into loans increased over the study period. There had been increase in financial performance banks over the study period. The research revealed financial performance of commercial banks would be -0.09748 units holding other factors constant. Further, holding other factors constant, a unit change in financial assets would change financial performance of commercial banks by 0.00162 units.

When all the other factors are held constant, a unit increase in loans increases financial performance of commercial banks by 0.00179 units. Similarly, a unit increase in cash and cash equivalent holding constant other factors increased financial performance of commercial banks

by 0.00136 units. Finally, a unit change in other investments holding the rest of the factors constant changes financial performance of commercial banks by 0.00067. The findings revealed that assets (p=.04487), loans (p=.02731), cash and cash equivalent (p= .02134) and other investments (p=.02026) were significant in predicting financial performance of commercial banks since all the p values were less than 0.05.

5.3 Conclusion

Financial assets have a significant relationship with financial performance of Kenyan commercial banks. An increase in diversification of financial assets hence results to increased financial performance of the banks. As a result, this translates to increases a commercial banks worth. in addition, there has been increase in financial assets of commercial banks over the study period, that is, 2011 to 2015.

Loans have a direct and significant impact on financial performance of the commercial banks in Kenya. This is a very strong relationship which imply that loans are the most assets that commercial banks and they significantly determine the financial performance of commercial banks. However, there are fluctuation of loans over the study period (2011-2015).

Cash and cash equivalent has a statistically significant relationship with financial performance of commercial banks whereby they have a positive relationship. The trends of cash and cash equivalents over the study period imply that there are fluctuations for the last five years and as at the year 2015, it was at its lowest.

Finally, the study deduces that a direct relationship exists between other investments and financial performance of banks. This relationship is significant. Such impact could be attributed

to the positive influence of other investments on company's chances of earning a good return although not guaranteed because of the uncertainty facing the investments.

5.4 Recommendations

The study established that despite cash and cash equivalents having positive impact on the performance of banks, there were fluctuating trends over the years of study with 2015 recording a decline. From these findings, it is recommended to commercial bank managers to put into place strategies and plans that prevents such fluctuations given that cash and cash equivalents are key assets to banks.

Further, the study revealed that other investments affect the financial performance of banks in Kenya to great extent and there was a decline over the past two years. This trend puts the bank into a risky scenario. Hence, it is recommended to commercial bank managers to reviews existing assets diversification plan, specifically on other investments in order to realign what might be causing such trends. This should involve putting across strategies and plans for diversifying and utilizing cash reserves in a way that translates to positive performance.

As a recommendation for policy, this study recommends to the policy makers and the government institutions that regulate the banking sector in Kenya to put into place conducive regulations that support asset diversification efforts by commercial banks. This should involve a joint effects by all stakeholders to review the regulations, analyse the impact and finally review them based on the findings.

5.5 Limitations of the Study

The financial statements did not reflect the impact placement of three commercial banks under receivership had on financial performance. Putting into account such interventions could yield varied results.

Some international commercial banks, example standard chartered banks, have their annually financial statements derived based on their operations globally which fails to have specific impact of asset diversification and financial performance in relation to Kenyan context only.

The study also faced limitation whereby banks ventured into asset diversification into different area at different times hence their impacts on the financial performance of commercial bank may also vary.

5.6 Suggestions for Further Research

The study revealed that cash and cash equivalents as well as other assets had declined over the last year of the study. Hence, the researcher recommends for further research into the cash and cash equivalents, and other investments diversification in banks in order to have a detailed conclusions of causes behind such trends.

The study further revealed that 64.6% of the variations in financial performance of the banks was explained by asset diversification. Further research should be carried out to establish the factors affecting the remaining 35.4% variation in financial performance of banking industry.

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APPENDICES

Appendix I: List of Licensed Commercial Banks in Kenya as at 30th June 2016

1. African Banking Corporation Ltd.
2. Bank of Africa Kenya Ltd.
3. Bank of Baroda (K) Ltd
4. Bank of India
5. Barclays Bank of Kenya Ltd.
6. CFC Stanbic Bank Ltd.
7. Chase Bank (K) Ltd.
8. Citibank N.A Kenya
9. Commercial Bank of Africa Ltd.
10. Consolidated Bank of Kenya Ltd.
11. Co-operative Bank of Kenya Ltd.
12. Credit Bank Ltd.
13. Development Bank of Kenya Ltd.
14. Diamond Trust Bank Kenya Ltd
15. Dubai Bank Kenya Ltd
16. Ecobank Kenya Ltd
17. Equatorial Commercial Bank Ltd.
18. Equity Bank Ltd.
19. Family Bank Limited
20. Fidelity Commercial Bank Ltd
21. Fina Bank Ltd
22. First community Bank Limited
23. Giro Commercial Bank Ltd.
24. Guardian Bank Ltd
25. Gulf African Bank Limited
26. Habib Bank A.G Zurich
27. Habib Bank Ltd
28. Housing Finance Company of Kenya

29. Imperial Bank Ltd

30. I & M Bank Ltd

31. Jamii Bora Bank Limited.

32. Kenya Commercial Bank Ltd

33. K-Rep Bank Ltd

34. Middle East Bank (K) Ltd

35. National Bank of Kenya Ltd

36. NIC Bank Ltd

37. Oriental Commercial Bank Ltd

38. Paramount Universal Bank Ltd

39. Prime Bank Ltd

40. Standard Chartered Bank Kenya Ltd

41. Trans-National Bank Ltd

42. UBA Kenya Bank Limited

43. Victoria Commercial Bank Ltd

Source: Central Bank of Kenya, 2015

Appendix II: ROA, Financial Assets, Loans, Cash & Cash Equivalent and Other Investments

Year	Financial performance (Return on Assets)	Financial Assets (Natural log)	Loans (Natural log)	Cash and Cash Equivalents (Natural log)	Other Investments (Natural log)
2011	0.020	24.7382	24.0873	21.9953	21.1459
2012	0.018	24.8054	24.3303	22.6130	21.5575
2013	0.020	24.9922	24.4940	22.7256	21.8675
2014	0.022	25.1048	24.4708	22.7726	21.6770
2015	0.023	25.2481	24.7003	21.5884	21.4598