THE RELATIONSHIP BETWEEN BRANCH NETWORK SPREAD AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

BY

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Declaration

This Management Research Project is my original work, and has not been presented for the award of a degree in any other university.

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This Management Project has been submitted for examination with my approval as the university supervisor.

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DEDICATION

This project is dedicated first and foremost to the Almighty God whose providence, grace and care I cherish

To my beloved husband Kefah, darling I appreciate your love, patience, support and understanding.

To my parents Mr. and Mrs. Titus Musyoka for your prayers, moral support and encouragement.

Thank you and God bless you abundantly.

ABSTRACT

The study adopted a descriptive research design in order to gather quantitative and qualitative data describing the relationship between branch network spread and financial performance of commercial banks in Kenya. The population for this study comprise of all commercial banks in Kenya, licensed and registered under the Banking Act. The study used secondary data by reviewing published financial statements from 2000 to 2010. The study found that there was a positive relationship between bank branch network and financial performance of the banks.

This research expands our understanding on the implications of bank branch network to financial performance of the banks. The study will guide the banks in making informed decisions towards branch network.

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ABBREVIATIONS

ATMs	Automatic Teller Machines
BAAC	Bank of Agriculture and Agricultural Co-operatives
BBK	Barclays Bank of Kenya
CBK	Central Bank of Kenya
CEO	Chief Executive Officer
GB	Grameen Bank
ICT	Information Communication Technology
KBA	Kenya Bankers Association
KCB	Kenya Commercial Bank
NPLs	Non- Performing Loans
PWC	Price Waterhouse Coopers
RRBs	Rural Retail Banks
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment
RFIs	Rural Financial Institutions
SACCO`S	Savings and Credit Co-operative Societies
SMEs	Small and Medium Enterprises

CHAPTER ONE

INTRODUCTION

1.1Background to the Study

Commercial banks can operate as a single unit bank or develop a network of bank branches, which act as the key contact point customers and the Central bank. As such, branches occupy key positions in banking organizations and their locations reflect important strategic decisions and operating policies. The rationale for developing a branch network, beyond the significant effect it has on banks` market shares is threefold: diversification of risk, customer convenience and market knowledge. Branching facilitates geographic diversification, which allows banks to diversify their assets by improving access to different industries that may respond to shocks differently. Through their local branches banks are able to better obtain and process market specific knowledge. These banks may have local information about certain borrowers, local economic conditions or market trends that they may not have had without their local branches and this can insulate certain branches from competitive forces. (CBK Annual Report, 2005)

The commercial banking industry in Kenya is governed by the Companies Act, the Banking Act, the Central Bank of Kenya Act and the various prudential guidelines issued by the Central Bank of Kenya (CBK). The banking sector was liberalized in 1995 and exchange controls lifted. The CBK, which falls under the Ministry of Finance docket, is responsible for formulating and implementing monetary policy and fostering the liquidity, solvency and proper functioning of the financial system. As at December 2010 there were forty four commercial banks and one Mortgage finance company (CBK Annual report, 2010).

In the year 2007, the performance of commercial banks in Kenya was characterized by a strong growth in asset size and profitability. The banking sector asset base expanded by 26.1 per cent with a resultant growth of 31 per cent in pre-tax profits for the period to December 31, 2007. Asset growth was mainly funded by increased deposits attributed to aggressive marketing campaigns for new deposits mounted by a number of institutions and rapid branch network expansion (CBK, 2007).

The business vibrancy in the sector saw a decline in Non-Performing Loans and a resultant increase in Pre-tax Profits. Net Non-Performing Loans to Gross Loans ratio declined to 3.4 per cent in December 2007 from 5.0 per cent in December 2006. This sharp decline was attributed to the Government resolution of Non–Performing Loans in one leading bank, recoveries and write-offs in a number of other banking institutions. Another significant development in the banking sector was the licensing of two commercial banks that are Sharia compliant. First Community Bank and Gulf African Bank were licensed to operate as Sharia compliant banks under the existing legal and regulatory framework for conventional banking institutions. It was anticipated that the two banks, in addition to four other conventional banks offering Islamic products, will propel Kenya into a premier financial services hub in the region, with a wide range of competitive products (CBK, 2007).

The Commercial banking sector credit has been on an upward trend since 2003 mainly on account of improved public access to financial services due to stiff competition within the industry that saw an expansion of the range of credit products especially personal un-secured loans. As a result, banking sector credit to the domestic economy grew by 17.6 per cent in the year to December 2007 compared with 15.4 per cent in December 2006. Growth in private sector credit was, however, faster at 24.6 per cent in the year to December 2007 compared with 15 per cent in 2006.This is due to economic vibrancy that prevailed during the year (Michael, 2008).

The country's fastest growing commercial bank, Equity bank reported a surge of 90% profits for the first quarter of 2008 recording Kshs 908 million in profits an indication that all being equal the bank would for the first time exceed Kshs 2 billion in profits. The bank which specializes in micro finance and which only converted to a full bank from a building society only four years ago nearly doubled its profits for the period compared to last year , a pointer that it well on the way to overtaking big multinationals operating in Kenya. On the other hand, Kenya's oldest bank Kenya Commercial Bank (KCB) a wholly owned Kenyan bank recorded an end of year profit of Kshs 3.2 billion the highest ever in the bank's history sending signals that, that it's growth was on course (Robert, 2009).

A big number of Kenyan commercial banks are highly concentrated in major towns in Kenya therefore leaving people in the rural areas with absolutely no access to the formal financial systems. As a result, they rely on a variety of traditional and informal financial systems. This is due to non availability of formal financial systems or where available they are scarcely populated such that it becomes hard for most people to access. However some banks like Equity Bank, Kenya Commercial Bank and Family Bank have strengthened their network spread in both urban and rural areas and this has contributed towards acquisition of a big market share and realization of increased financial performance (Paul, 2010).

Many commercial banks in Kenya have not expanded their branch spread network in rural areas and hence continue concentrating their operations in major urban centers where competition is very stiff and the room for expansion is limited. Though some commercial banks have every reason to remain operating in urban centers like commercial banks specializing in corporate businesses, it has been proven that, rural market can greatly influence realization of increased customer base and increased bank financial performance. The case of Equity bank, Family bank and Kenya Commercial Bank is good example that network spread in rural areas does not contribute to decline in bank performance as it had been previously held. However the relationship between the commercial banks branch network spread has not been clearly established and this raises a major question on if bank branch network spread affects commercial banks performance (Dorothy, 2010).

Commercial banks are united under the Kenya Bankers Association (KBA), which serves as a lobby for the banking sector's interest's .The KBA serves a forum to address issues affecting members. Over the last few years, commercial banking sector in Kenya has continued to grow in assets, deposits, profitability and products offering. The growth has been mainly underpinned by; an industry wide branch network expansion strategy both in Kenya and in the East African community region, automation of a large number of services and a move towards emphasis on the complex customer needs rather than traditional 'off-the-shelf' banking products. Players in this sector have experienced increased competition over the last few years resulting from increased innovations among the players and new entrants into the market (Robert, 2008).

Kenya has a relatively well-developed banking and formal financial sector. This consists of the Central Bank of Kenya, forty four Commercial Banks, sixteen Non-Bank Financial Institutions, one Mortgage Finance Companies, four Building Societies, eight Development Financial Institutions, a Post Office Savings Bank, four thousand five hundred Savings and Credit Co-operative Societies (SACCO`S), thirty eight Insurance Companies, the Nairobi Stock Exchange and several Venture Capital Companies. However, very few of the commercial banks have spread their wings to the rural areas (CBK Annual report, 2009).

The commercial banks are important intermediaries in mobilizing savings that is required for sustainable growth. A more efficient and diversified financial system assists in increasing the level of domestic savings as well as promoting foreign capital inflows. It also assists businesses and government in better managing risk. Commercial banks continue to form the core of the financial sector in most developing countries. They are at forefront in monitoring projects and enforcing contracts when public information is limited and the legal and financial infrastructure is immature. It is well recognized that banks lending to private sector strongly influences investment, productivity and growth in developing countries (Valenzuela, 1997).

There are many reasons why commercial banks are put off entering the rural market, despite its apparent potential profitability, and why those banks that have taken the plunge have in many cases faced problems. Commercial banks are answerable to their shareholders, who live and die by the bottom line and demand maximum returns. Most do not feel that investing in rural areas will guarantee them this. Standards and regulatory requirements with which commercial banks have to comply, particularly regarding unsecured lending, and interest rates, are inappropriate for microfinance operations. The organizational structures, procedures, products and methodologies of commercial banks are not suited to microfinance, and changing them can be difficult, time consuming and expensive. There are significant cultural barriers to be overcome, staff and managers of commercial banks often still perceive the poor as unbankable, and the ways of working required to reach out to them as unbecoming for professional business people like themselves (Graham, 1997).

Commercial banks like other private companies are driven by the profit motive. It is argued that to establish a new fully-fledged bank branch is very expensive and may take long time before the new branch may break even or make profit. Thus, commercial banks perceive rural areas of not being profitable to the banks. One of the supporting argument or reason is the type and the number of transactions that are likely to take place in rural areas whether they would be able to sustain the branch to make profit or break even. This argument, however, may not hold water when viewed from the overall position of the bank. Yes, a bank branch on its own may not be able to operate profitable, but that does not mean the overall commercial bank may not be profitable anymore. Further, the latest international business practices show that profitability should not be the sole or utmost objective of business enterprises anymore. While in the short-run, shareholders may be satisfied with the high ownership rent; there could be some negative consequences in the long run. Therefore, modern firms should not look blindly at the profitability of the branch, but they should also consider other objectives, such as the long-term development and sustainability of the enterprises, social responsibility, market presence and market share. (Evanoff, 1988).

A financial access survey conducted during the year revealed that 38 per cent of the adult Kenyan population lacks access to financial services. This population is excluded from formal banking institutions due to high costs of maintaining savings accounts and barriers to entry. The enactment of the Microfinance Act is expected to offer a wide range of financial services to this unbanked population, which will usher in more players and competitiveness in the banking sector .The banking sector comprised of 45 institutions, 42 of which were commercial banks, 2 mortgage finance companies and 1 non-bank financial institution as at 31st December 2007. Out of 45 institutions, 35 were locally owned and 10 were foreign owned. The locally owned financial institutions comprised of 3 banks with significant shareholding by the Government and State Corporations, 29 commercial banks, 2 mortgage finance institutions and 1 non-bank financial institution. Local private institutions constitute 71.1 per cent of total institutions while local public institutions constitute 6.7 per cent and foreign institutions (CBK Annual Report, 2009).

The spread of commercial banks branches networks into rural areas eases accessibility of financial services by the rural population. Access to financial services contributes to rural development and poverty reduction in several ways. The ability to save and borrow aids consumption by enabling better management of cash flows and promoting income-enhancing and vulnerability-reducing investments. Access to risk-management instruments such as insurance reduces vulnerability, and access to payment services enables households to have periodic income flows even when the primary income earner is working at a geographically distant location, often in a different country (Michael, 2008).

However, access to financial services continues to be limited in most rural areas in developing Kenya since many banks have not expanded their branch network in rural areas. This has been influenced by fear of declined financial performance and loss of market share as result of concentration of the rural market. There are many challenges that make it difficult for most Kenyan commercial banks to effectively spread their branch network in rural areas and the most noted ones includes increased operational costs and financial risks. Factors increasing transaction costs include remoteness and poor infrastructure, lower demand for financial services arising from lower levels of income and economic activity, and small size of transactions. Risks include major covariant risks such as weather and price risks that affect agriculture, the major determinant of rural incomes (Nancy, 2010).

In spite of having major reforms in the banking sector, out of the forty seven commercial banks in Kenya, only a few banks have established branches in rural areas as a big number of banks have concentrated their branches network in major urban centers (Edwin, 2007). This study seeks to establish the relationship between branch network spread and financial performance of commercial banks in Kenya and thus identify reasons why commercial banks are not expanding branch network to rural areas.

The branch is critical in the life of a bank. Significant numbers of customers still visit the branch weekly. But branches need to be more than simply efficient at the transactional level. They need to exist at the personal level where relationships are developed; and it is these relationships that will turn the branch from a primarily transaction center into a home for loyal customers. This is good news for banks. Trusted banks and their branches are an important source of client engagement and revenue generation (Rossides &Taylor, 2009).

The future is therefore bright for bank branches. They will be a revived source of business for banks. Customer loyalty, through staged customer experiences, will increasingly turn banking towards cross-selling and value-added advisory services. By connecting rational and emotional elements, branches will reinstall trust in financial institutions and regenerate economic growth, thus the necessity to measure its relationship to financial performance of the banks. (Rossides &Taylor, 2009).

1.2 Statement of the Problem

A large number of commercial banks in Kenya have limited their branch network spread to major urban centers and only a few banks have shown interest in the rural markets. Michael (2008) noted that some banks record declined performance after opening branches in rural areas and this discouraged many banks from venturing into rural market. Edward (2010) argues that many banks have failed to open branches in the rural markets as result of the fear of declined performance and lack of effective strategies for strengthening banks growth and development. Peterson (2008) argues lack of commercial activities in rural areas, low income levels; low level of financial products usage, insecurity, poor infrastructure in terms of road and information communication technology (ICT) and higher business risks are the main obstacles discouraging bank branch network expansion. However, on the hand, Phillip (2009) found that only a few banks with branches in rural areas managed to record an increased performance since many banks lacked strategies for penetrating the rural market. In addition, Paul (2010) notes that some banks with high branch network spread in rural areas like Equity bank and Kenya Commercial Bank have been recording increased financial performance.

In view of the above, there seems to be a conflict of views on the relationship between branch network spread and financial performance of commercial banks. This study is set out to fill the missing knowledge gap by narrowing its research undertakings towards establishing the relationship between branch network spread and financial performance of commercial banks in Kenya.

1.3 Objective of the Study

The main objective of the Study is to determine the relationship between branch network spread and financial performance of commercial banks in Kenya.

1.4 Importance of the Study

1.4.1 Commercial Banks Managers

First, the findings of this study will be of benefit to the managers of commercial banks in Kenya since it will demonstrate the relationship between branch network spread and financial performance of commercial banks in Kenya. The study will further expose the challenges affecting expansion of banks branch networks and highlight key strategies that could be adopted by commercials banks in order to reach the a wide customer base. This will assist commercial banks managers in formulating and actualizing banks expansion strategies for strengthening banks performance.

1.4.2 Academicians

Secondly, the study will be of significance to academicians since it acts as a source of information on measures employed by commercial banks to measure performance. This will enrich the academic literature for future studies and researchers. The report will act as reference and stimulate the interest among academicians and thereby encouraging further researches on relationship in performance of banks with heavy concentration in rural areas with those with low branch network in rural area.

1.4.2 Customers

The study will be of importance to customers located in rural areas since it will raise awareness about the role of the rural market in facilitating realization of increased banks financial performance. This will hence influence many commercial banks to understand the nature and characteristics of the rural market and hence develop products suitable for the rural market thereby leading to increased supply of different and affordable financial services to the rural customers. This will play a great role towards promoting the standards of leaving amongst the rural population and increased entrepreneurial development.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses the literature review of the study, the literature review provides the reader with an explanation of the theoretical rationale of the problem being studied as well as what research has already been done and how the findings relate to the problem at hand. The purpose of the literature review is to avoid unnecessary intentional or accidental duplication of materials already covered. In this chapter, literature was reviewed from published reference materials such as books, working papers, magazines, newspapers and journals. This provided an overview of major past activities that had earlier been covered on banks performance.

2.2. Historical Development of the Banking Industry

Banking activities were sufficiently important in the second Babylonia in the second millennium B.C. that written standards of practice were considered necessary. Deposits were not of money but of cattle, grain or other crops and eventually precious metals. Depositors could use written orders for the withdrawal of a certain quantity of grain as a means of payment. This system worked so well that it continued to exist even after private banks dealing in coinage and precious metals were established. The development of banking spread through Europe and a number of important innovations took place in Amsterdam during the Dutch Republic in the 16th century and in London in the 17th century. During the 20th century developments in telecommunications and computing resulting in major changes to way banks operated and allowing them to dramatically increase in size and geographic spread. The late 2000s financial crisis saw significant number of bank failures, including some of the world's largest banks, and much debate about bank regulation (Hoggson, 1926)

Modern day banking practices can be traced in the Medieval Italian cities of Florence, Venice and Genoa. The Italian bankers made loans to princes, to finance wars and their lavish lifestyles, and to merchants engaged in international trade. The Bardi and Peruzzi families were dominant in Florence in the 14th century and established branches in other parts of Europe to facilitate their trading activities (Goldthwaite, 1995)

During the 17th and 18th centuries, the Dutch and British improved upon Italian banking techniques. A key development often credited to the London goldsmiths around this time was the adoption of fractional reserve banking. By the middle of the 17th century, the civil war had resulted in the demise of the goldsmiths' traditional business of making objects of gold and silver. Forced to find a way to make a living, and have the means to safely store precious metal, they turned to accepting deposits of precious metals for safekeeping. The goldsmith would then issue a receipt for the deposit (Goldthwaite, 1995).

Banks became an integral part of the US economy from the beginning of the republic. Five years after the Declaration of Independence, the first chartered bank was established in Philadelphia in 1781, and by 1794, there were seventeen more. At first, bank charters could only be obtained through an act of legislation. But in 1838, New York adopted the free banking Act, which allowed anyone to engage in banking business as long as they met certain legal specifications. As free banking quickly spread to other states, problems associated with the system soon became apparent. For example, banks incorporated under these state laws had the right to issue their own bank notes. This led to a multiplicity of notes many of which proved to be worthless in the event of a bank failure (Richard, 2010).

2.3. Kenya Banking Industry and Branch Network Spread

The Kenyan banking industry can be traced back to the 19th century when the country became under the colonial rule. The first bank to open an outlet in Kenya was National Bank of India in 1896 which opened an outlet in Mombasa and eight years later it extended its operations in Nairobi, which had became the Headquarters of the expanding railway line to Uganda. The major change in the bank`s history came in 1958. Grindlays Bank merged with the National Bank of India to form the National and Grindlays Bank. Upon independence the government of Kenya acquired 60% shareholding in national and Grindlays Bank in an effort to bring banking closer to the majority of Kenyans. In 1970, the government acquired 100% of the shares to take full control of the largest commercial bank in Kenya. National and Grindlays Bank was renamed Kenya Commercial Bank. (CBK, 2000).

In the year 2000, the number of commercial banks reduced by 45 from fifty one in 1999 to forty nine in 2000. In addition, the total number of branches reduced by 12% from 465 branches in 1999 to 407 branches in the year 2000. This resulted from branch rationalization measures taken by Barclays Bank of Kenya (BBK) and Kenya Commercial Bank (KCB). The majority of the branches closed were in the rural areas. There was however some new branches opened especially in main urban centers. The main success of the Kenya Commercial Bank is due to their wide presence in the rural areas. There are about four hundred correspondent banks of this Kenyan bank around the world. The number of automated Teller machines of the Kenya Commercial Bank is one hundred and fifteen. The total assets of the Bank are around 100 billion Kenya shillings (CBK, 2000).

2.4. Roles of Commercial Banks

Commercial banks play important roles in the economy of a nation. First, they act as intermediaries between deficit units and surplus spending units. In this case, banks collects demandable deposits from its customers and raise funds in the short term capital markets which are then repackaged and invested in long term assets such as loans, investment in bonds and equity securities.(Allens and Elena, 2008).

Secondly, commercial bank assists in spurring economic growth though provision of finance to firms which is in turn used to finance various projects. Firms use these funds to invest in various profitable projects which spur economic growth. In addition, these projects create employment for the citizens. (Allens and Elena, 2008).

Thirdly, commercial banks help in corporate governance in that they tend to have very close ties with industry and form long run relationships with firms not only because of the loans they make and the shares they directly own but also because of the proxies they are able to exercise. (Allens and Elena, 2008).

In addition, they act as delegated monitors which ensure that firms use the resources allocated to them effectively. This mitigates against moral hazards and the agency problems. This is done through loan covenants requiring borrowers not to pay dividends from borrowed funds, providing collateral to cover the loans, and provision of timely and reliable financial reports. (Allens and Elena, 2008).

Moreover, banks help in diversification of financial risks in the economy by creating an avenue for investors to diversify risk inform of fixed deposits (Debt securities) in addition to investment in equity securities.(Allens and Elena, 2008).

2.5 Challenges Affecting Expansion of Commercial Banks in Rural Areas

Anderson (2008) concurred that expansion of banks in rural areas is hampered by changes in economic condition and continuous deregulation. These multiple changes happens one after other has a ripple effect on a bank trying to graduate from completely regulated sellers market to completed deregulated customers market. The continuous deregulation has made the banking market extremely competitive with greater autonomy, operational flexibility, and decontrolled interest rate and liberalized norms for foreign exchange. The deregulation of the industry coupled with decontrol in interest rates has led to entry of a number of players in the banking industry. At the same time reduced corporate credit off thanks to sluggish economy has resulted in large number of competitors battling for the same pie.

Robert (2008) contended that as a result, the market place has been redefined with new rules of the game. Banks are transforming to universal banking, adding new channels with lucrative pricing and freebees to offer. Natural fall out of this new players, new channels squeezed spreads, demanding customers better service, marketing skills heightened competition, new rules of the game pressure on efficiency missed opportunities. Need for new orientation diffused customer loyalty. Bank has led to a series of innovative product offerings catering to various customer segments, specifically retail credit.

Edwin (2007) argued that competency gap affects the banks management from pacing right skill at the right place will determine success. The competency gap needs to be addressed simultaneously otherwise there will be missed opportunities. The focus of people will be doing work but not providing solutions, on escalating problems rather than solving them and on disposing customers instead of using the opportunity to cross sell.

2.6 Strategies Adopted by Commercial Banks to Tap the Unbanked Rural Market

According to Peterson (2008) marketing research is a key strategy undertaken by banks in order to expand their market. The marketing research is considered as being a systematic gathering, recording and analysis of data makes ways for making products innovation the marketing decisions. The information collected from the external sources by conducting surveys helps bank professional in different wants.

Michael (2008) argued that in the bank services, the formulation of overall marketing strategies is considered significant with the view point of tapping the potentials, expanding the business and increasing the marketing share. The increasing domination and gaining popularity banks, the profitable schemes of the non-banking organization mounting craze among the customers for private banks have made the task of influencing the impulse of customers a bit difficult. The marketing research simplifies the task of studying the magnitude of competition by opinion surveys and the feedback customers, the multi-dimensional changes in the services mix can be made productive if it is based on marketing research.

Phillip (2009) affirmed that leading players in the industry have embarked on a series of strategic and tactical initiatives to sustain leadership. The major initiatives include: Investing in state of the start of the art technology as the back bone to ensure reliable service delivery, leveraging the branch network and sales structure to mobilize low cost current and savings deposits, making aggressive forays in the retail advances segments of home and personal loans, implementing organization wide initiatives involving people, process and technology to reduce the fixed costs and the cost per transaction, focusing on fee based income to compensate for squeezed spread and innovating products to capture customer 'mind share' to begin with and later the wallet share and Improving the asset quality as Basel II norms.

2.7. Financial Ratios used to Measure Bank Performance

Profitability ratios

Profitability ratios measure the total effectiveness of a bank's management in generating profits on interest income, assets, and owner's investment. These ratios are;

1. Return on Equity (ROE)

Return on Equity measures how well the bank has performed in all categories i.e. measures the amount of net income after tax for each shilling of equity capital. Owners prefer ROE to be high. Risk of bankruptcy increases as equity levels fall. The decomposition of ROE allows a bank to identify its strengths and weaknesses and provides a systematic method to identify reasons for these strengths and weaknesses. (CBK, 2000).

2. Return on Assets (ROA)

Return on Assets measures the income produced per shilling of assets .Change in ROA leads to a change in ROE. (CBK, 2000).

3. Profit Margin (PM)

Profit Margin measures net income per shilling of total revenue. This ratio shows the bank's ability to control expenses and reduce taxes. The greater the profit margin, the more efficient in reducing expenses or taxes. (CBK, 2000).

4. Asset utilization (AU)

This ratio is affected by how a bank utilizes its assets in earning revenue. Asset utilization represents gross yield on assets.AU=Total Revenue/Total Assets. (CBK, 2000).

5. Other profitability ratios

Interest Expense Ratio= Interest expenses/total revenue, Non-Interest Expense ratio =Non interest expenses/total revenue, Provision for loan loss =provision for loan losses/total revenue, Net interest margin=Net interest income/earning assets, Overhead efficiency=Non Interest income/Non Interest expense. (CBK, 2000).

Kathanje, (2000) used financial Ratio analysis to evaluate financial performance of Kenyan banking sector during the period 1987 to 1999.He sought to determine whether financial performance in the pre-liberalization periods (1987-1992) is significantly different from performance in the post liberalization period (1993-1999).His findings were that the overall performance of banks in the pre-liberalization period was different from that of post liberalization period.

Although the balanced scorecard has become very popular, there is no single version of the model that has been universally accepted. The diversity and unique requirements of different enterprises suggest that no one-size-fits-all approach will ever do the job. Having a clear and transparent benchmark tells team members the minimum standards to meet organizational goals. With guidance and support, this can be a powerful motivation for team members to move together towards the objective. When performance is tied effectively to rewards, it will be possible to cultivate a competitive environment as team members know the targets to meet and bring home the attractive end of year bonus (Jones, 2000).

Generally, the financial performance of commercial banks and other financial institutions has been measured using a combination of financial ratios, benchmarking, measuring performance against a budget or a mix of these methodologies (Avkiran, 1995).The financial statements of commercial banks in Kenya contain a variety of financial ratios designed to give an indication of the bank`s performance. Some of the ratios commonly used to measure performance of banks include Capital adequacy ratios, Asset Quality ratio, Earnings and Liquidity ratios.

2.8 Empirical Studies

Rural banking is a common practice in places where banking institutions are few and far between and people who need to carry out banking transactions may have difficulty finding a way to do so. With modern technology, more and more people have access to online systems that allow them to conduct certain types of banking without a nearby branch, but this technology is not available for everyone, and demand for rural banking is still high in some area (Verbrugge, 2001).

Recent innovations in the delivery of retail financial services have raised questions about the role of bricks and mortar branches in the banking industry. The advent of internet banking, the proliferation of automatic teller machines (ATMs), and the increasing reliance on centralized call centers, all seemed to challenge the traditional branch method of delivering banking services. Yet, in fact, the number of full service branches in the United States has increased steadily since the early 1990s. Further, consistent with the general trend toward consolidation in the banking industry, these branches have become increasingly concentrated within the large branch networks of a limited number of institutions. (Hirtile, 2004).

A study by Orlow, Radecki,and, and Wenninger (1996) argued that bricks and mortar branches are a comparatively expensive means of delivering retail financial services, particularly deposit based services. To the extend this is the case, then the creation of extensive branch networks could impose a significant cost structure on banking organizations. This need not to result in reduced profitability, however, if there are economies of scale in the operation of branch networks or if the revenue generating performance of branches is otherwise enhanced when they are part of large branch networks.

From the perspective of the institutions themselves, the growth in the number of bank branches and the consolidation of branches within very large branch networks has implications for cost structure, business focus and profitability. Full service branches impose significant costs that banks must cover through the revenues generated by these networks, primarily the implicit and explicit income associated with deposit accounts. Continued expansion of branch networks seems consistent with a belief by these organizations that branches will continue to be an effective channel for generating retail banking revenues, despite these costs and the development of alternative distribution channels such as call centers, ATMs, and online banking. (Orlow, Radecki, and Wenninger, 1996).

A study by Batino (2004) found out that, in India a remarkable feature of banks performance over the past three decades has been the massive expansion of their retail network in rural areas. From a modest beginning of 6 banks with 17 branches covering 12 districts in December 1975, the numbers had grown into 196 Rural Retail Banks (RRBs) with 14,446 branches working in 518 districts across the country in March 2004. Many banks have a large branch network in the rural area forming around 43 per cent of the total rural branches of commercial banks. The rural orientation of banks is formidable with rural and semi urban branches constituting over 97 per cent of their branch network. The growth in the branch network has enabled the banks to expand banking activities in the unbanked areas and mobilize rural savings.

Studies by Yaron (1998) depicted that Rural Financial Institutions (RFIs); GB in Bangladesh, Bank of Agriculture and Agricultural Co-operatives (BAAC) in Thailand, and Village Banks {Unit Desas, BRI-UD of Bank Rakyat Indonesia BRI} as being largely successful in achieving the primary performance objectives of outreach and self sustainability in poverty reduction. BAAC served about 76 per cent of borrowers of the Thai farming households, while the BRI-UD credit reached approximately 5 per cent of all the Indonesian households (1.9 million households) with as many as 14.5 million households' savers. These numbers grew to 2.5 million loan accounts and a phenomenon 16.2 million deposit accounts in 1996.The GB had 2.06 million clients and provided an estimated 36 per cent of the total credit to the poor Bangladesh people. According to Central Bank of Kenya [CBK], (2003), there was a 4.5 per cent decline in pre-tax profit for the banking industry in the year 2002. Non-performing loans can be treated as undesirable outputs or costs to a loaning bank, which decreases the bank's performance (Chang, 1999). The risk of non-performing loans mainly arises as the external economic environment becomes worse off such as economic depressions (Sinkey, 1991). Controlling non-performing loans is very important for both the performance of an individual bank and the economy's financial environment (McNulty, 2001).

Due to the nature of their business, commercial banks expose themselves to the risks of default from borrowers. Prudent credit risk assessment and creation of adequate provisions for bad and doubtful debts can cushion the banks risk. However, when the level of non- performing loans (NPLs) is very high, the provisions are not adequate protection. According to the CBK (July, 1999) the level of NPLs in 1998 was estimated at Shs. 80 billion or 30% of advances, up from 27% in1997 as compared to 81.3 billion or 33.4% of total loans in November 2001. This can be compared with levels of NPLs in other countries (Verbrugge, 2001).

For over the years, the banking industry in Kenya recognized the growth in various financial aspects which makes the note the increase in competition. The growth was traced through looking on the times since there is a successful introduction of innovation and new entrants in the market (PWC). Banks are identified to be one of the major players that support the Kenya's socio-economic development. Its role in the society is admired because it boosts the confidence in terms of entrepreneurship. The innovative products in the banking industry serve a great advantage not only on the business but also to provide satisfaction on their long-time customers. The continuous excellent performance of the banks reflects in the improvement and stability of the economy. One of the best examples that benefited in the progress of banking sector is the strong existence of small and medium enterprises (SMEs), which became the source of livelihood in Kenya (CBK, 2007).

From the past examination and studies regarding the growth in the competition in the banking industry, it is identified the factors such as the internationalization, openness of the financial markets, and banking harmonization which creates an obvious changes in the banking activities, as well as on their performance (Bikker,2007). In the continuing adoption of the banking in the area of technology and innovation, there is a great expectation on the mobile payment and mobile banking systems. The banking industry in Kenya exceeds to what is needed in the formal financial sector that leads in the continuous operation in terms of mobile payment. In the long-run it will definitely create an impact in the banking activities and substantially delivers an impression of a strong economy. According to the reports in the financial performance of Kenya, it is noticeable that the mobile banking activities of the customers delivers the best attribute of a bank and thereby, the products and services can adequately be provided in Kenya's population. The value assessed from the person-to-person money transaction, which summarizes the traditional banking activities, is expected to be doubled by the innovative changes in the banking environment (Liu, 2009).

2.9 Summary

This section of the study developed a theoretical and empirical orientation of past researchers' undertakings on commercial banks branch network spread and banks performance. In doing so, it addressed challenges affecting branch network spread of commercial banks globally and in Kenya and the strategies adopted by commercial banks to spread their branch networks rural areas. This section of the study highlighted that no major study has been carried out in Kenya specifically to establish the relationship between branch network spread and financial performance of commercial banks and this hence limited study from identifying specific theoretical and empirical issues pertaining the study.

The banking sector is considered to be an important source of financing for most businesses. The common assumption, which underpins much of the financial performance research and discussions, is that increasing financial performance will lead to improved functions and activities of the organizations. The subject of financial performance and research into its measurement is well advanced within finance and management fields. It can be argued that there are three principal factors to improve financial performance for financial institutions; the institution size, its asset management, and the operational efficiency. This study proposes that there are measurable linkages among bank`s size, asset management, the operational efficiency, and the financial performance.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter discusses the research methodology that was used to carry out the study. It starts with research design, population of study, sample size, data collection, and data analysis and data presentation. The chapter thus explores the research design, study population, sample design, data collection and data analysis methods.

3.2 Research Design

The study adopted a descriptive research design in order to gather quantitative data describing the relationship in performance of banks and network spread. According to Babbie (1989), descriptive research is used to obtain information concerning the current status of the phenomena to describe what exists with respect to variables or conditions in a situation. The study considered descriptive research design since it provides a systematic way of looking at events, collecting data, analyzing information, and reporting the results.

3.3 Population

The population for this study comprised of 42 banks out of the 44 commercial banks in Kenya, licensed by the Central Bank of Kenya and registered under the Banking Act. According to the Central Bank of Kenya, there are forty four licensed commercial banks in Kenya (CBK Annual Report, 2010.) The reason for choosing 42 banks instead of all 44 banks is because two banks operated for less than four years between 2000 and 2010.

3.4 Data Collection

The study used secondary data of banks past financial performance filed with the Central Bank of Kenya. According to Morris (2001) data collection is the gathering of pieces of information that are necessary for research process. The data covered the years of 2000 to 2010.

3.5 Data Analysis

Gay(1992), observed that data analysis involves organizing, accounting for and explaining the data, that is making sense of data in terms of respondents definition of the situation noting patterns, themes, categorizes and regularities.

The data collected was analyzed using regression analysis. The data analyzed was presented using tables, and was scored by calculating the percentages, mean, Standard deviation and Variance. This was done using Statistical Package for Social Sciences (SPSS).

Descriptive statistics method was applied to analyze quantitative data where the data to be used in the analysis was taken from CBK`s annual reports. The use of risk indicators in the analysis of bank performance has gained in the past decades a special attention because the control of bank risks is one of the most important factors the profitability of the bank depends on.

Following the empirical literature, the study used Return On Assets (ROA) to reflect the bank`s management ability to use resources the bank disposes of for the purpose of optimizing profit. Bank capital adequacy is measured as the Equity to Assets ratio, quantified as the value of total equity divided by the value of total assets.

The model that was used to regress these variables is as follows;

$$y_i=b_0+b_1x_{i1}+b_2x_{i2}+ \dots +b_nx_{in}+\varepsilon_i$$

Where:

y_i is the dependent variable which is financial performance measures (ROA, ROE and profit before tax and Exceptional items).

X1 is the number of branches

X2 is the asset size

X_3 is the total capital ratio

ε_i is the error term which represents the combined effects of the omitted variables.

CHAPTER FOUR

ANALYSIS RESULTS AND DISCUSSION

4.1 Introduction

This chapter shows findings of the study and discusses these findings in length. The study analyses the relationship between branch network and financial performance of Kenyan commercial banks between years 2000 to 2010. Section 4.2 shows summary statistics, section 4.3 explores the relationship between bank branch network with return on assets and return on return on equity and also shows the test of hypothesis. Section 4.4 summarises the chapter.

4.2 Summary Statistics

4.2.1 Banks' Branch Network for Years 2000-2010

Table (1) shows the branch network and growth rate with base year 2000 for the Kenyan commercial banks for years 2000 to 2010. The bank with the highest growth rate was Chase Bank rising from one branch in 2000 to 14 branches in year 2010, reflecting a growth rate of 1300%. It was followed closely by Diamond Trust Bank (1100%), and Fidelity Commercial Bank was number three in branch network growth (700%).

The bank with the largest branch network as by December 2010 was Kenya Commercial Bank with 165 branches, followed by Equity Bank (123 branches) and in position three was Barclays bank of Kenya with 123 branches reflecting a growth rate of 68.4%, 392% and 145.8% respectively.

Victoria Commercial Bank was the bank with least number of branches (2 branches) followed by Middle East Bank of Kenya and Development Bank of Kenya both with three branches each. Citibank N.A was the third bank with least branches (four branches) reflecting a growth rate of 0%.

Table 1 Banks' Branch Network for Years 2000-2010

BANK NAME	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Growth Rate
African Banking Corporation Ltd.	8	8	8	8	8	7	7	8	9	10	10	25.0
Bank of Africa Ltd				0	0	3	3	5	7	10	18	500
Bank of Baroda	6	6	6	6	6	6	6	7	8	9	11	83.3
Bank of India	2	2	2	2	2	4	4	4	4	5	5	150.0
Barclays Bank of Kenya Ltd	48	48	48	46	46	43	43	95	105	119	118	145.8
CFC Bank Ltd.	3	3	3	5	5	5	5	8	0	0	20	566.7
Charterhouse Bank Ltd.	1	1	1	2	2	10	10	8	10	8	8	700.0
Chase Bank Ltd.	1	1	1	1	1	2	2	6	7	13	14	1300.0
Citibank, N.A.	4	4	4	3	3	2	2	3	3	4	4	0.0
City Finance Bank Ltd	1	1	1	1	1	1	1	1	1	1		-100.0
Co- operative Bank of Kenya Ltd.	27	27	27	30	30	37	37	54	73	83	87	222.2
Commercial Bank of Africa Ltd.	7	7	7	6	6	12	12	17	17	19	20	185.7
Consolidated Bank of Kenya ltd.	12	12	12	12	12	11	11	12	12	13	13	8.3
Credit Bank Ltd.	2	2	2	3	3	4	4	4	4	5	6	200.0
Development Bank of Kenya Ltd.	1	1	1	1	1	1	1	1	1	3	3	200.0
Diamond Trust Bank Kenya Ltd.	3	3	3	5	5	5	5	13	13	32	36	1100.0
Dubai Bank Ltd.	2	2	2	5	5	3	3	3	4	4	5	150.0
Equatorial Commercial Bank Ltd.	3	3	3	3	3	2	2		4	5	12	300.0
Equity Bank Ltd				25	30	36	36	48	102	110	123	392
Family bank Ltd				13	13	28	28	32	38	50	52	300
Fidelity Commercial Bank Ltd.	1	1	1	2	2	3	3		6	7	8	700.0
Fina Bank Ltd.	2	2	2	2	2	5	5	7	14	15	15	650.0
Giro Commercial Bank Ltd.	6	6	6	6	6	6	6	6	6	8	7	16.7
Guardian Bank Ltd.	5	5	5	6	6	5	5	5	7	7	7	40.0
Habib AG Zurich	4	4	4	5	5	4	4	4	5	5	5	25.0
Habib Bank Ltd.	0	0	0	7	7	4	4	4	4	4	5	-28.6
Imperial Bank Ltd.	3	3	3	4	4	5	5	11	11	12	16	433.3
Investments & Mortgages Bank Ltd	3	3	3	7	7	9	9	10	13	16	15	400.0
Kenya Commercial Bank Ltd	98	113	113	87	87	115	119	135	144	149	165	68.4
K-Rep Bank Ltd.	9	14	16	18	22	26	28	26	31	30	31	244.4
Middle East Bank of Kenya Ltd.	2	2	2	3	3	2	2	2	3	3	3	50.0
National Bank of Kenya Ltd	24	24	24	24	24	23	23	34	39	44	53	120.8
National Industrial Credit Bank Ltd.	3	3	3	4	4	5	5	15	15	16	21	600.0
Oriental Commercial Bank				5	5	4	4	5	5	6	6	20
Paramount-Universal Bank Ltd.	3	3	3	3	3	3	3	4	4	6	6	100.0
Prime Bank Ltd.	7	7	7	7	7	9	9	9	11	14	14	100.0
Southern Credit Banking Corp Ltd	3	3	3	6	6	10	10	9	10	10		-100.0
Stanbic Bank Kenya Ltd	3	3	3	3	3	8	8	8	0	0		-100.0
Standard Chartered Bank (K) Ltd	26	28	28	28	28	28	28	34	35	34	33	26.9
Transnational Bank Ltd.	6	6	6	6	6	7	7	9	12	13	18	200.0
Victoria Commercial Bank Ltd	2	2	2	1	1	1	1	1	1	1	2	0.0

Source: Calculated from CBK BSD Reports (2000-2010)

4.2.2 Banks' Profits for years 2000 to 2010

Table (2) shows total profits for all the domestic commercial banks through 2000-2010, and provides the growth rate of profits based on 2000 as base year. Growth rate was computed by taking the values for the final year, divided by the values of base year and multiplied by 100 to get as a percent. Final year is 2010 or the last year the values of profits are given, base year is 2000 or the first year the profits values are given. Average profits were computed by summing up the profits then dividing by the number of years.

Consolidated bank had the highest growth rate of 39707% in year 2010 comparing with rear 2000. The growth rate is 18850% for Fidelity Bank with average profits of KSh 28.6M. Furthermore, the table indicates the average profits of Barclays Bank to be KSh 5601.6M, Standard Chartered with KSH3987.3m, Equity Bank with KSh 4271.6M. K-Rep Bank, City Finance and Southern Credit had the lowest average profits, recording KSh 1.6M, KSh -14.5M and KSh -57.4M. To rank the banks based on their average profits through the years, Barclays Bank is considered to be number one, Standard Chartered number two and Southern Credit to be number last.

Table 2 Banks' profits (in KSH M) for years 2000-2010

Bank	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Growth Rate	average
African Banking Corporation Ltd.	34	40.9	44	66	114	123	140	185	224	257	480	1411.76	155.2
Bank of Africa Ltd					-32	7.5	61	158	93	260	484	1512.50	91.3
Bank of Baroda	47	52.1	41	143	274	238	373	497	633	726	1828	3889.36	441.1
Bank of India	94	116	63	176	123	124	278	474	609	609	991	1054.26	266.5
Barclays Bank of Kenya Ltd	2983	4215	2518	4764	5413	5402	6624	7079	8016	9002	10,775	361.21	5601.6
CFC Bank Ltd.	243	145	187	254	354	418	679	921	1313	1333	2104	865.84	722.8
Charterhouse Bank Ltd.	77	92.2	105	107	43	122	124				-	161.00	95.8
Chase Bank Ltd.	26	30	47	59	-92	61.2	111	180	247	318	535	2057.69	98.7
Citibank, N.A.	619	699	1159	826	356	1285	1530	1782	3353	3055	2879	465.11	1594.8
City Finance Bank Ltd	-122	2	15	11	11	0.25	-17	-28	-3			2.50	-14.5
Co- operative Bank of Kenya Ltd.	-1414	-439	102	183	354	706	1233	2288	3337	3727	5559	190.59	1421.4
Commercial Bank of Africa Ltd.	370	477	351	544	416	614	1311	1402	1694	1768	2695	69.73	1058.3
Consolidated Bank of Kenya ltd.	-14	-13.1	77	12	-71	-12.7	16	26	85	117	258	39707.14	22.2
Credit Bank Ltd.	26	37.6	31	47	47	89.8	90	131	79	83	34	130.77	66.1
Development Bank of Kenya Ltd.	84	107	39	126	94	166	127	157	171	188	236	280.95	135.9
Diamond Trust Bank Kenya Ltd.	175	38.2	107	180	193	364	685	869	1305	1634	2872	1641.14	765.6
Dubai Bank Ltd.	-1	10.2	-28	9	31	29	20	14	7	9	3	300.00	9.4
Equatorial Commercial Bank Ltd.	30	27.4	65	96	103	109	94	73	-8	77	(34)	-113.33	66.6
Equity Bank Ltd					218	501	1100	2364	4757	5570	9312	4271.60	3403.1
Family bank Ltd				75.6	90.9	94	264	268	531	343	501	662.70	238.1
Fidelity Commercial Bank Ltd.	2	25.9	22	18	2	16.2	26	49	73	52	377	18850.00	60.3
Fina Bank Ltd.	51	51.6	73	105	-51	94.7	147	115	82	23	151	296.08	76.6
Giro Commercial Bank Ltd.	20	29.6	33	33	14	-5.6	59	41	126	185	634	3170.00	106.3
Guardian Bank Ltd.	56	55.6	64	52	119	56.4	48	25	44	61	112	200.00	63.0
Habib AG Zurich	106	113	82	77	56	147	165	204	242	286	248	233.96	156.9
Habib Bank Ltd.	79	98.1	110	95	92	20.7	6	107	146	197	235	297.47	95.1
Housing Fin. Co. of Kenya Ltd.	217	-257	95	112	99	102	112	131	196	354	560	258.06	156.5
Imperial Bank Ltd.	113	148	187	254	268	305	387	564	673	802	1,248	1104.42	370.0
Investments & Mortgages Bank Ltd	138	101	109	285	372	489	936	1294			3,004	937.70	465.6
Kenya Commercial Bank Ltd	-693	169	-3199	856	1076	1909	3035	3863	5394	6426	11,538	-16.02	1883.6
K-Rep Bank Ltd.	14	56.9	86	120	110	48.1	152	190	-472	-289	111	82414.29	11.5
Middle East Bank of Kenya Ltd.	111	80.1	60	79	36	115	100	94	30	44	206	185.59	86.8
National Bank of Kenya Ltd	-1631	-323	390	492	743	859	934	1610	1797	2159	2698	-165.42	884.4
National Industrial Credit Bank Ltd.	451	377	340	359	373	403	675	1048	1474	1529	2416	535.70	858.7
Oriental Commercial Bank					-369	85.7	-65	209	68	33	183	49.60	-6.4
Paramount-Universal Bank Ltd.	17	12.1	9	11	12	15.8	31	43	51	42	281	1652.94	47.7
Prime Bank Ltd.	47	55.3	71	82	103	125	191	317	460	564	770	1638.30	201.5
Southern Credit Banking Corp Ltd	-14	-64	14	49	61	31	32	41	6	-730		-5214.00	-57.4
Stanbic Bank Kenya Ltd	-439	-290	35	-151	154	440	917	1194	1313	1333		303.00	450.6
Standard Chartered Bank (K) Ltd	3119	3205	3217	4011	2691	3500	3798	4897	4709	6726	7668	245.85	4321.9
Transnational Bank Ltd.	22	221	122	121	1035	59.1	46	81	121	88	159	722.73	188.7
Victoria Commercial Bank Ltd	21	20	22	31	45	124	128	151	170	216	311	1480.95	112.6

Source: Calculated from CBK BSD Reports (2000-2010)

(Growth rate computed from Profits in 2010 and 2000 while average profits were computed by averaging profits for the entire period of years from 2000 to 2010)

The relationship between branch network and profits is as shown in correlation analysis in table (3) below. The correlation between bank branch network and profits is 0.554, which means there is a moderate relationship, thus branch network is contributing to profits moderately.

Table 3 Correlation between Profits and Number of Bank Branches in Kenya

		Profits	Number of bank branches
Profits	Pearson Correlation	1	.554(**)
	Sig. (2-tailed)	.	.000
	N	421	419
Number of bank branches	Pearson Correlation	.554(**)	1
	Sig. (2-tailed)	.000	.
	N	419	434

** Correlation is significant at the 0.01 level (2-tailed).
Source: Calculated from CBK BSD Reports (2000-2010)

4.2.3 Total Assets for the Kenyan Commercial Banks from year 2000 to 2010

Table (4) illustrates for the listed banks, the total assets for each bank in the period 2000-2010, and shows also the growth rate in assets and the average of total assets. Growth rate was computed by taking the values for the final year, divided by the values of base year and multiplied by 100 to get as a percent. Final year is 2010 or the last year the values of assets are given, base year is 2000 or the first year the assets values are given. Average assets were computed by summing up the profits then dividing by the number of years.

It's clear from table (3) that City Finance got the lowest growth rate (67.1%). On the other hand, Dubai bank realized the highest growth rate in its assets (4274.9%), which means that its total assets (KSh686M) increased by 4274.9% in year 2010 to become equal to KSh 29326M. Ranking of the banks based on their average total assets is showed that Barclays Bank to be number one, followed by Kenya Commercial Bank, Standard Chartered Bank and City Finance bank is the last one in the total assets ranking.

Table 4 Banks' Assets for Kenyan Commercial Banks (in KSh M)

Bank	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Growth Rate	average
African Banking Corporation Ltd.	3612	3717	4065	3833	4321	6099	6591	6700	6584	9118	10234	283.333	5897.6
Bank of Africa Ltd					5188	7898	8515	8093	12304	16978	21859	421.3	11547.9
Bank of Baroda	3806	4391	5604	8044	8654	10150	12809	15245	18361	22399	32444	852.444	12900.6
Bank of India	3019	3572	5122	5829	6342	8177	9538	10610	12049	15586	14112	467.44	8541.5
Barclays Bank of Kenya Ltd	84118	89923	1E+05	97001	115800	129237	149039	167475	168786	169788	172691	205.296	131748.7
CFC Bank Ltd.	9773	10569	12674	13811	18474	27171	31869	29467	83166	98401	107139	1096.28	40228.5
Charterhouse Bank Ltd.	1524	2474	2511	2632	3773	5510	4501				6380	418.635	3663.1
Chase Bank Ltd.	908	1038	1401	1710	2128	2948	4800	5999	10300	13169	19399	2136.45	5800.0
Citibank, N.A.	22500	41850	36108	33769	26043	37019	44831	48533	47535	51581	63592	282.631	41214.6
City Finance Bank Ltd	875	800	815	650	543	510	527	744	587			67.1	672.3
Co- operative Bank of Kenya Ltd.	27852	30786	41810	32518	62088	71532	77227	75278	83897	114234	142880	512.997	69100.2
Commercial Bank of Africa Ltd.	14482	20374	19617	18341	21394	36463	45002	40178	50110	58904	62070	428.601	35175.9
Consolidated Bank of Kenya ltd.	3253	4368	4160	2442	4579	5069	4100	5392	4657	7565	8209	252.352	4890.4
Credit Bank Ltd.	2011	1881	2133	2145	2708	3386	2610	3582	3637	3840	4018	199.801	2904.6
Development Bank of Kenya Ltd.	4513	4269	3463	2693	2780	3288	3800	4999	6520	8289	10297	228.163	4991.9
Diamond Trust Bank Kenya Ltd.	5494	6232	6942	8571	11691	18749	26153	31130	41592	47509	58606	1066.73	23879.0
Dubai Bank Ltd.	686	963	980	783	1146	1954	1690	2214	1639	2147	29326	4274.93	3957.1
Equatorial Commercial Bank Ltd.	2523	2677	2965	2941	3023	4286	4145	5116	4410	4528	10479	415.339	4281.2
Equity Bank Ltd					7161	12341	22391	54640	77136	98434	153984	2150.3	60869.6
Family bank Ltd				1306	2193	3285	5469	8569	10713	13683	20188	1545.8	8175.8
Fidelity Commercial Bank Ltd.	1558	1517	1454	1235	1776	1938	2600	3446	4329	5539	6215	398.909	2873.4
Fina Bank Ltd.	5514	5846	6622	5851	6564	8589	8531	8633	9865	12836	10650	193.145	8136.5
Giro Commercial Bank Ltd.	4704	5272	5239	4257	5166	6082	5700	5970	5938	7026	9594	203.954	5904.4
Guardian Bank Ltd.	5258	4850	5205	4066	4851	5679	5712	6494	5558	7316	8127	154.564	5737.8
Habib AG Zurich	3473	3946	4345	4030	4596	5351	5900	6440	6557	7438	8031	231.241	5464.3
Habib Bank Ltd.	3247	3514	3561	3569	3453	3250	3900	4022	4491	4729	4558	140.376	3844.9
Housing Fin. Co. of Kenya Ltd.	14979	15645	16381	10783	14084	13658	11469	12125	14330	19342	26892	179.531	15426.2
Imperial Bank Ltd.	3613	4370	5285	4921	6286	9896	12400	12386	13432	15755	20188	558.76	9866.5
Investments & Mortgages Bank Ltd	8658	7100	7176	12130	14912	18042	22348	29420				339.8	14973.3
Kenya Commercial Bank Ltd	93518	89904	92382	58067	81797	104487	115592	124527	174712	180041	223025	238.484	121641.1
K-Rep Bank Ltd.	972	1202	1736	2174	2851	3952	5350	7303	8184	7685	7670	789.095	4461.7
Middle East Bank of Kenya Ltd.	5062	5173	5021	3455	4366	5596	5159	3333	3297	3177	1874	37.0209	4137.5
National Bank of Kenya Ltd	44934	50394	53618	25977	59727	65211	70125	52098	42696	52327	62552	139.209	52696.3
National Industrial Credit Bank Ltd.	8738	9821	10826	11142	17549	23349	29240	32673	42704	46326	54776	626.871	26104.0
Oriental Commercial Bank					1630	1379	1449	1695	2774	3421	4558	279.63	2415.1
Paramount-Universal Bank Ltd.	1716	1771	1715	1209	2048	2485	3000	3371	2646	3418	1723	100.408	2282.0
Prime Bank Ltd.	3181	3862	4767	5232	6006	8938	12417	14374	19945	24173	32332	1016.41	12293.4
Southern Credit Banking Corp Ltd	1997	2905	2684	3264	3848	4221	4580	5306	5463	4964		248.57	3923.2
Stanbic Bank Kenya Ltd	9078	6653	7977	9974	11479	14997	25823	34464	100392	98401		1083.95	31923.8
Standard Chartered Bank (K) Ltd	59846	67479	74495	64241	70310	104274	114162	92966	99140	124806	133890	223.724	91419.0
Transnational Bank Ltd.	2578	2762	3075	1439	2832	2654	2820	3664	3388	3705	4762	184.717	3061.7
Victoria Commercial Bank Ltd	3652	3275	3738	3336	3750	4836	4698	4196	4460	5130	5426	148.576	4227.0

Source: Calculated from CBK BSD Reports (2000-2010)
(Growth rate computed between 2000 and 2010 while average assets computed by averaging sum of the assets for all the years between 2000 and 2010).

Table (5) shows the correlation between bank branch network and total assets. The Pearson Correlation coefficient is 0.633 implying that branch network contributes largely into assets growth of the banks in Kenya

Table 5 Correlations between Bank Branch network and Total Assets

		Number of bank branches	Assets
Number of bank branches	Pearson Correlation	1	.633(**)
	Sig. (2-tailed)	.	.000
	N	434	424
Assets	Pearson Correlation	.633(**)	1
	Sig. (2-tailed)	.000	.
	N	424	426

** Correlation is significant at the 0.01 level (2-tailed).
Source: Calculated from CBK BSD Reports (2000-2010)

4.2.4 Return on Assets Ratios for the Banks between years 2000 to 2010

As shown in table (6), the summary of (ROA) ratios during the period of 2000-2010 for each Kenyan bank is presented. Average ROA were computed by summing up the ROA then dividing by the number of years. In order to rank the banks based on this ratio, Transnational Bank is the first one, it has an average of ROA 6.62%. The second position is for Equity Bank with ROA equals to 5.00%, Standard Chartered Bank s in the third position with ROA 4.70%, second last position is Southern Credit Bank with ROA -0.16% and the last position is belonged to City Finance bank with ROA -1.73%.

Table (6) shows the return on assets ratios (in percent) for the Kenyan banks between years 2000-2010.

Table 6 Return on Assets for Kenyan Commercial Banks (in %)

BANK	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	average
African Banking Corporation Ltd.	0.94	1.1	1.1	1.722	2.64	2.01	2.1	2.8	3.3	2.82	4.67	2.29
Bank of Africa Ltd	.				-0.62	0.09	0.70	2.00	0.70	1.53	1.81	0.89
Bank of Baroda	1.23	1.19	0.70	1.78	3.17	2.35	2.90	3.30	3.40	3.24	5.65	2.63
Bank of India	3.11	3.23	1.20	3.02	1.94	1.51	2.90	4.50	5.00	3.91	5.04	3.21
Barclays Bank of Kenya Ltd	3.55	4.69	2.40	4.91	4.67	4.18	4.40	4.20	4.70	5.30	6.24	4.48
CFC Bank Ltd.	2.49	1.37	1.50	1.84	1.92	1.54	2.10	3.10	1.50	1.35	1.96	1.88
Charterhouse Bank Ltd.	5.05	3.73	4.20	4.07	1.14	2.22	2.80					3.32
Chase Bank Ltd.	2.86	2.89	3.40	3.45	-4.32	2.07	2.30	3.00	2.40	2.42	2.45	2.08
Citibank, N.A.	2.75	1.67	3.20	2.45	1.37	3.47	3.40	3.70	7.00	5.92	4.64	3.60
City Finance Bank Ltd	-13.94	0.25	1.84	1.69	2.03	0.05	-3.23	-3.80	-0.50			-1.73
Co- operative Bank of Kenya Ltd.	-5.08	-1.43	0.20	0.56	0.57	0.99	1.60	3.00	3.70	3.26	3.61	1.00
Commercial Bank of Africa Ltd.	2.55	2.34	1.80	2.97	1.94	1.68	2.90	3.50	3.30	3.00	4.24	2.75
Consolidated Bank of Kenya ltd.	-0.43	-0.30	1.90	0.49	-1.55	-0.25	0.40	0.50	1.50	1.54	2.46	0.57
Credit Bank Ltd.	1.29	2.00	1.40	2.19	1.74	2.65	3.40	3.70	2.10	2.15	0.74	2.12
Development Bank of Kenya Ltd.	1.86	2.50	1.10	4.68	3.38	5.05	3.40	3.10	2.60	2.27	2.22	2.92
Diamond Trust Bank Kenya Ltd.	3.19	0.61	1.50	2.10	1.65	1.94	2.60	2.80	3.10	3.44	4.90	2.53
Dubai Bank Ltd.	-0.15	1.05	-2.80	1.15	2.71	1.49	1.20	0.60	0.30	0.41	0.18	0.56
Equatorial Commercial Bank Ltd.	1.19	1.02	2.20	3.26	3.41	2.54	2.30	1.40	-0.20	1.69	-0.32	1.68
Equity Bank Ltd	.				3.04	4.06	4.90	4.30	6.10	5.66	6.95	5.00
Family bank Ltd				5.79	4.15	2.86	4.83	3.13	5.00	2.50	2.48	3.84
Fidelity Commercial Bank Ltd.	0.13	1.70	1.50	1.46	0.11	0.84	1.00	1.40	1.70	0.94	4.59	1.40
Fina Bank Ltd.	0.92	0.88	1.10	1.79	-0.78	1.10	1.70	1.30	0.80	0.18	1.07	0.91
Giro Commercial Bank Ltd.	0.43	0.56	0.60	0.78	0.27	-0.09	1.00	0.70	2.00	2.63	6.20	1.37
Guardian Bank Ltd.	1.07	1.15	1.20	1.28	2.45	0.99	0.80	0.40	0.70	0.83	1.39	1.11
Habib AG Zurich	3.05	2.86	1.90	1.91	1.22	2.74	2.80	3.20	3.60	3.85	3.05	2.74
Habib Bank Ltd.	2.43	2.79	3.10	2.66	2.66	0.64	0.10	2.70	3.20	4.16	4.34	2.62
Housing Fin. Co. of Kenya Ltd.	1.45	-1.64	0.60	1.04	0.70	0.74	1.00	1.10	1.30	1.83	1.91	0.91
Imperial Bank Ltd.	3.13	3.38	3.50	5.16	4.26	3.08	3.10	4.60	4.90	5.09	6.43	4.24
Kenya Commercial Bank Ltd	-0.74	0.19	-3.50	1.47	1.32	1.83	2.60	3.10	3.00	3.57	1.44	1.30
K-Rep Bank Ltd.	1.44	4.73	5.00	5.52	3.86	1.22	2.80	2.60	-5.60	-3.76	5.17	2.09
Middle East Bank of Kenya Ltd.	2.19	1.55	1.20	2.29	0.82	2.06	1.90	2.80	0.90	1.37	5.11	2.02
National Bank of Kenya Ltd	-3.63	-0.64	0.70	1.89	1.24	1.32	1.30	3.10	4.00	4.13	4.49	1.63
National Industrial Credit Bank Ltd.	5.16	3.84	3.10	3.22	2.13	1.73	2.30	3.20	3.40	3.30	4.41	3.25
Oriental Commercial Bank	1.59	1.42	1.52	2.34	2.49	2.71	4.18	4.39				2.58
Paramount-Universal Bank Ltd.	0.99	0.68	0.50	0.91	0.59	0.64	1.00	1.30	1.40	1.23	6.35	1.42
Prime Bank Ltd.	1.48	1.43	1.50	1.57	1.72	1.40	1.50	2.20	2.30	2.33	2.37	1.80
Southern Credit Banking Corp Ltd					-22.63	6.21	-4.49	12.33	2.50	0.97	4.01	-0.16
Stanbic Bank Kenya Ltd	-4.84	-4.35	0.44	-1.51	1.34	2.93	3.55	3.46	4.70	1.35		0.71
Standard Chartered Bank (K) Ltd	5.21	4.75	4.30	6.24	3.83	3.36	3.30	5.30	4.70	5.39	5.37	4.70
Transnational Bank Ltd.	0.85	8.00	4.00	8.41	36.55	2.23	1.60	2.20	3.30	2.36	3.33	6.62
Victoria Commercial Bank Ltd	0.58	0.61	0.60	0.93	1.20	2.56	2.70	3.60	3.80	4.22	5.00	2.35

Source: Calculated from CBK BSD Reports (2000-2010)

4.4.5 Kenyan commercial banks' Shareholders' Equity for years 2000-2010

According to table (7), K-Rep bank shows the highest growth rate in its total shareholders' equity (7445.5%) in year 2010 comparing with its owners equity in year 2000. Further, Consolidated bank is ranked in the second position among the listed banks in table (5) based on their average of total shareholders' equity. Southern Credit Bank is ranked last with a growth rate of 15.59% in shareholders' equity.

Table 7 Shareholder's Equity in KSh 'M`.

BANK	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Growth Rate	average
African Banking Corporation Ltd.		352	382	426	504	586	677	812	968	1145	1631	463.352	814.4
Bank of Africa Ltd					649	652	978	1263	1662	2511	2945	453.775	1668.0
Bank of Baroda		383	415	823	969	1069	1263	1532	1910	2565	4744	1238.64	1773.6
Bank of India		383	774	885	959	858	1023	1312	1690	2069	2756	719.58	1384.6
Barclays Bank of Kenya Ltd		11401	9,989	11022	12485	13177	14862	17564	20463	24210	31465	275.98	17934.0
CFC Bank Ltd.		1459	1,507	1601	1702	2718	2990	3339	7118	8143	10035	687.8	4548.4
Charterhouse Bank Ltd.		328	401	475	503	581	670			0		204.26	395.2
Chase Bank Ltd.		334	366	471	526	562	636	696	845	1223	1715	513.47	805.8
Citibank, N.A.		4015	4,067	4172	3510	5355	6256	7330	9190	11077	12882	320.85	7304.0
City Finance Bank Ltd		390	933	406		370	354	326	323	315		82.82	427.1
Co- operative Bank of Kenya Ltd.		1992	1,794	2130	3299	4057	4810	6807	13933	16103	7474	375.2	7068.5
Commercial Bank of Africa Ltd.		1703	1,568	1648	1812	2331	3631	4518	4949	6323	1477	86.729	3257.6
Consolidated Bank of Kenya ltd.		802	624	636	565	699	722	748	846	927	20202	2519	3181.0
Credit Bank Ltd.		348	370	404	419	464	510	562	666	728	948	272.41	573.1
Development Bank of Kenya Ltd.		1014	809	901	934	1050	1068	1144	1229	1363	1489	146.84	1142.8
Diamond Trust Bank Kenya Ltd.		1043	1,051	1175	1223	1416	2609	4670	5334	6263	8057	772.48	3796.8
Dubai Bank Ltd.		296	306	355	373	386	397	403	411	463	596	201.35	411.8
Equatorial Commercial Bank Ltd.		372	416	460	508	579	617	670	676	730	906	243.55	617.4
Equity Bank Ltd					1271	1594	2201	14917	19660	23337	28308	2227.2	14949.0
Family bank Ltd						338	908	1277	1557	1853	3127	925.1	1510.0
Fidelity Commercial Bank Ltd.		237	248	260	262	270	287	319	424	490	801	337.97	385.0
Fina Bank Ltd.		508	554	629	786	847	972	1054	1171	1198	1336	262.99	956.8
Giro Commercial Bank Ltd.		375	397	420	431	431	495	528	608	857	1340	357.33	631.8
Guardian Bank Ltd.		635	663	681	715	757	788	805	835	873	948	149.29	785.0
Habib AG Zurich		354	375	409	448	543	650	742	774	958	1118	315.82	681.6
Habib Bank Ltd.		316	373	406	413	428	446	522	620	747	896	283.54	545.8
Housing Fin. Co. of Kenya Ltd.		968	950		1080	1291	1368	1460	3661		4270	441.12	2134.5
Imperial Bank Ltd.		525	617	742	876	1122	1353	1580	1912	2247	3095	589.52	1541.3
Investments & Mortgages Bank Ltd		1078	9416	1596		2057	2795	3867		7419		358.7	4032.6
Kenya Commercial Bank Ltd		6406	4,316	4681	7978	9969	11481	12846	20058	22398	1158	18.077	10875.8
K-Rep Bank Ltd.		549	609	689	757	790	898	1018	1129	1107	40876	7445.5	5877.9
Middle East Bank of Kenya Ltd.		677	687	711	713	794	842	879	877	904	1027	151.7	828.8
National Bank of Kenya Ltd		2457	1,917	2154	2625	3223	3848	4967	6208	7908	9930	404.15	5012.1
National Industrial Credit Bank Ltd.		2326	2,498	2576	2644	2722	3035	4735	5529	6434	7896	339.47	4396.9
Oriental Commercial Bank						723	673	819	944	982	1138	157.4	879.8
Paramount-Universal Bank Ltd.		268	280	284	292	301	426	456	492	527	785	292.91	441.3
Prime Bank Ltd.		476	543	604	670	722	1318	1926	3075	3065	3898	818.91	1879.0
Southern Credit Banking Corp Ltd		1108	3517	463		2032	2738	560	483	-5		15.59	1362.0
Stanbic Bank Kenya Ltd		754	9704	945		9508	10039	3357	11390			1510	6528.1
Standard Chartered Bank (K) Ltd		4672	4,667	6368	5419	9508	10039	10816	11390	13807	20210	432.58	10340.1
Transnational Bank Ltd.		640	715	867	1009	1048	1122	1103	1235	1325	1541	240.78	1105.3
Victoria Commercial Bank Ltd		465	479	492	507	562	581	657	763	935	1103	237.2	687.9

Source: Calculated from CBK BSD Reports (2000-2010)(Growth rate between 2000 and 2010,average Equity from 2000 all through to 2010)

The correlation between branch network and shareholders' equity is strong (0.616), significant at 0.01 level of significance, as shown by table (8). This means that there is a strong relationship between the two.

Table 8 Correlations between Bank Branch Network and Shareholders' Equity

		Number of bank branches	Shareholders' Equity
Number of bank branches	Pearson Correlation	1	.616(**)
	Sig. (2-tailed)	.	.000
	N	434	294
Shareholders' Equity	Pearson Correlation	.616(**)	1
	Sig. (2-tailed)	.000	.
	N	294	296

** Correlation is significant at the 0.01 level (2-tailed).
Source: Calculated from CBK BSD Reports (2000-2010)

4.2.6 Return on Equity for Kenyan Commercial Banks for years 2000-2010

The return on equity (ROE) is considered to be one of the profitability performance ratios. Average ROE ratios were computed by summing up the ROE then dividing by the number of years. The average ROE ratio is 1833% for Southern Credit Banking Corporation Ltd, followed by 49.8% for Standard Chartered bank, and Barclays Bank of Keya with ROE 38.5%. Fourth place was taken by Imperial Bank with 32.6% and Commercial Bank of Africa took the fifth position with ROE 28% during the period (2000-2010). The banks in the last five positions were City Finance Bank, Housing Finance Co of Kenya, Dubai Bank, K-Rep and Bank of Africa with ROE 8.2%, 5.6%, 4.3%, 1.2% and 0.08% respectively. The ROE is net profit after taxes divided by total owners' equity. It reflects the bank management's ability to generate net profits from using the owners' equity as one of the financial sources.

Table (9) displays the return on equity (ROE) ratio for the Kenyan commercial banks between years 2000-2010

Table 9 Return on Equity Ratio at the Kenyan Banks

BANK	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	average
African Banking Corporation Ltd.		11.63	11.6	15.49	22.6	20.95	20.66	22.8	23.2	22.4454	29.46	20.08
Bank of Africa Ltd					4.95	1.15	6.27	12.5	5.6	10.3544	16.45	8.18
Bank of Baroda		13.6	9.9	17.38	28.28	22.3	29.5	32.4	33.1	28.3041	38.52	25.33
Bank of India		30.17	8.2	19.89	12.82	14.42	27.13	36.1	36	29.4345	35.94	25.01
Barclays Bank of Kenya Ltd		36.97	25.2	43.22	43.36	40.99	44.57	40.3	39.2	37.183	34.25	38.52
CFC Bank Ltd.		9.95	12.4	15.87	20.77	15.36	22.7	27.6	18.4	16.3699	20.96	18.04
Charterhouse Bank Ltd.		28.11	26.2	22.53	8.57	21.06	18.51					20.83
Chase Bank Ltd.		8.98	12.9	12.53	17.42	10.88	17.48	25.8	29.3	26.0016	31.2	19.25
Citibank, N.A.		17.42	28.5	19.8	10.14	23.99	24.46	24.3	36.5	27.5797	22.34	23.50
City Finance Bank Ltd		0.39	1.6	2.71		12.63	-4.79	-8.7	-0.9	-2.2222		0.08
Co- operative Bank of Kenya Ltd.		-22.05	5.7	8.59	10.72	17.39	25.64	33.6	23.9	23.1448	27.52	15.42
Commercial Bank of Africa Ltd.		28.02	22.4	33.01	22.95	26.33	36.1	31	34.2	27.9614	36.06	29.81
Consolidated Bank of Kenya ltd.		-1.64	12.4	1.89	12.57	1.81	2.25	3.45	10	12.6214	17.45	7.28
Credit Bank Ltd.		10.81	8.3	11.63	11.24	19.35	17.6	23.3	11.9	11.4011	3.55	12.91
Development Bank of Kenya Ltd.		10.52	4.9	13.98	10.02	15.81	11.92	13.8	13.9	13.7931	15.85	12.45
Diamond Trust Bank Kenya Ltd.		3.67	10.1	15.32	15.77	25.67	26.26	18.6	24.5	26.0897	35.64	20.16
Dubai Bank Ltd.		3.43	9.1	2.54	8.28	7.52	5.08	3.39	1.6	1.94384	0.56	4.34
Equatorial Commercial Bank Ltd.		7.36	15.7	20.87	20.34	18.83	15.24	10.9	-1.2	10.548	-3.7	11.49
Equity Bank Ltd					17.17	31.4	49.99	15.9	24.2	23.8677	32.9	27.91
Family bank Ltd						27.82	29.13	21	34.1	18.5105	16.01	24.42
Fidelity Commercial Bank Ltd.		10.91	9	6.92	0.65	6	9.12	15.3	17.1	10.6122	46.99	13.26
Fina Bank Ltd.		10.16	13.1	16.69	6.49	11.18	15.17	11	7	1.91987	11.32	10.40
Giro Commercial Bank Ltd.		7.89	8.3	7.86	3.25	1.3	11.92	7.78	20.7	21.5869	47.35	13.79
Guardian Bank Ltd.		8.76	9.7	7.64	16.58	7.45	6.12	3.1	5.3	6.9874	11.77	8.34
Habib AG Zurich		31.88	21.8	18.83	12.5	27.04	25.4	27.5	31.2	29.8539	22.15	24.82
Habib Bank Ltd.		31.04	29.4	23.4	22.17	4.83	1.25	20.4	23.6	26.3722	26.24	20.87
Housing Fin. Co. of Kenya Ltd.		-26.52	0.1		0.091	0.079	8.17	8.95	5.3		13.12	1.16
Imperial Bank Ltd.		28.12	30.4	34.23	30.56	27.16	28.57	35.7	35.2	35.692	40.31	32.59
Investments & Mortgages Bank Ltd		9.38	1.2	17.86		23.79	33.5	33.5		23.615		20.40
Kenya Commercial Bank Ltd		2.65	74.1	18.29	13.49	19.15	26.44	30.1	26.9	28.6901	9.55	24.93
K-Rep Bank Ltd.		10.36	14.2	17.42	14.57	6.09	16.92	18.7	-41.8	-26.107	28.23	5.85
Middle East Bank of Kenya Ltd.		11.83	8.7	11.11	4.98	14.51	11.87	10.7	3.4	4.86726	20.01	10.20
National Bank of Kenya Ltd		-13.13	20.4	22.84	28.32	26.66	24.28	32.4	28.9	27.3015	27.17	22.52
National Industrial Credit Bank Ltd.		16.21	13.6	13.94	14.09	14.81	22.24	22.1	26.7	23.7644	30.6	19.81
Oriental Commercial Bank						11.85	-9.67	25.5	7.2	3.36049	16.07	9.06
Paramount-Universal Bank Ltd.		4.51	3.4	3.87	4.06	5.25	7.24	9.47	10.4	7.96964	35.78	9.19
Prime Bank Ltd.		11.62	13.2	13.58	15.33	17.32	14.51	16.5	15	18.4013	19.74	15.52
Southern Credit Banking Corp Ltd		-5.79	0.4	10.58		21.64	33.48	7.36	1.1	14600		1833.60
Stanbic Bank Kenya Ltd		-38.52	0.4	-16		36.81	37.83	35.6	41.3			13.92
Standard Chartered Bank (K) Ltd		68.6	68.9	62.99	49.66	36.81	37.83	45.3	41.3	48.7144	37.94	49.80
Transnational Bank Ltd.		34.55	17.1	13.96	102.6	5.64	4.12	7.32	9.8	6.64151	10.29	21.20
Victoria Commercial Bank Ltd		4.3	4.6	6.3	8.92	22.01	21.93	23	22.3	23.1016	28.19	16.46

Source: Calculated from CBK BSD Reports (2000-2010)

4.2.7 Total Deposits for the Kenyan Commercial Banks between years 2000-2010

Table (11) shows total deposits for all the domestic commercial banks through 2000-2010, and provides the growth rate of deposits based on 2001 as base year (data for 2000 was not available). Growth rate was computed by taking the values for the final year, divided by the values of base year and multiplied by 100 to get as a percent. Final year is 2010 or the last year the values of deposits are given, base year is 2000 or the first year the deposits values are given.

Average deposits were computed by summing up the deposits then dividing by the number of years. The average of total deposits for Barclays Bank of Kenya is KSh 96118M with growth rate 217% in year 2010 comparing with year 2001. Kenya Commercial Bank recorded the second highest deposits (KSh 85416M) and position three was taken by Standard Chartered Bank (KSh 67208M) with growth rates of 336% and 221% respectively.

The bank with the lowest deposits was City Finance, recording KSh 114M, second last was Dubai Bank with KSh 758M and the third last was Oriental Commercial Bank with KSh 1262M, and recording a growth of 722%, 247% and 512% respectively.

Chase Bank recorded the highest growth rate in deposits (2900%), followed by Stanbic Bank of Kenya, Equity Bank and Family Bank with 2584%, 1876% and 1530% respectively. The banks that recorded minimum growth in deposits were Middle East bank of Kenya, Housing Finance Co Ltd and Habib Bank, with 79%, 157% and 164% respectively.

Table (10) describes the total deposits for the Kenyan banks between 2000-2010 (figures in KSh '000 000)

Table 10 Total Deposits of the Kenyan Banks

BANK	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Growth Rate	average
African Banking Corporation Ltd.		2450	2868	3239	3446	4455	4081	5084	5365	7208	8353	341	4677
Bank of Africa Ltd					3964	4396	4936	5523	8701	12405	19784	277	9219
Bank of Baroda		3332	4415	6994	7130	8083	10122	12673	15165	18634	25600	768	11563
Bank of India		2620	3801	4708	4935	6102	7146	8608	10211	13005	16076	614	7901
Barclays Bank of Kenya Ltd		57185	68924	77329	82583	84275	93837	109097	126408	125869	123826	217	96118
CFC Bank Ltd.		5700	7393	11361	14268	16696	18507	20820	61529	55786	72778	1277	29794
Charterhouse Bank Ltd.		1529	1409	2023	2820	3465	3154					302	2187
Chase Bank Ltd.		582	744	1109	1452	1979	3235	4276	7147	10117	16880	2900	5060
Citibank, N.A.		22177	24598	22797	20001	23679	25331	29605	31192	33247	38215	172	27463
City Finance Bank Ltd		32	51	72	74	94	126	231	231			722	114
Co- operative Bank of Kenya Ltd.		16668	22125	27052	39486	44110	48201	54775	65869	91553	124012	744	54416
Commercial Bank of Africa Ltd.		13954	14185	15986	17774	26545	32517	33362	41715	44273	53195	381	29662
Consolidated Bank of Kenya ltd.		1752	1794	1565	1907	1950	2463	2851	3279	4882	8008	457	3167
Credit Bank Ltd.		1153	1361	1721	2252	2278	1960	2657	2774	2793	3258	283	2214
Development Bank of Kenya Ltd.		751	714	948	620	1167	1351	1624	2231	2411	4105	547	1639
Diamond Trust Bank Kenya Ltd.		3969	4710	6680	9203	13779	16726	24409	32689	36274	44904	1131	19952
Dubai Bank Ltd.		489	429	401	475	710	801	1000	1032	986	1206	247	758
Equatorial Commercial Bank Ltd.		1832	1979	2400	2294	3055	3281	4117	3668	3522	8037	439	3459
Equity Bank Ltd					5074	9048	16337	31536	48977	65825	95204	1876	43826
Family bank Ltd				1028	1839	2536	4160	6024	6024	10490	15731	1530	5979
Fidelity Commercial Bank Ltd.		961	897	956	1277	1384	1977	2749	3778	4888	7204	750	2743
Fina Bank Ltd.		4037	4636	5104	5021	5279	5199	6670	8113	9986	11590	287	6706
Giro Commercial Bank Ltd.		3614	3515	3719	4137	4364	4493	4915	5127	5943	8308	230	4863
Guardian Bank Ltd.		2888	3211	3235	3261	3568	3995	4544	4586	5760	6971	241	4272
Habib AG Zurich		2951	3124	3384	3763	4048	4347	5012	5373	5839	6672	226	4496
Habib Bank Ltd.		2394	2597	3058	2767	2344	2433	2730	3024	3525	3933	164	2940
Housing Fin. Co. of Kenya Ltd.		10153	8975	9366	8012	8437	7619	8788	10089	12235	15945	157	10131
Imperial Bank Ltd.		2958	3354	3867	4662	6441	7074	8588	10414	12270	13678	462	7429
Investments & Mortgages Bank Ltd		5815	5942	10220	12554	15307	18220	23626		34799		406	15810
Kenya Commercial Bank Ltd		48531	47623	49897	54560	61062	71495	85638	109845	137968	163189	336	85416
K-Rep Bank Ltd.		409	821	1179	1602	1969	3308	4484	4502	4436	5454	1333	2911
Middle East Bank of Kenya Ltd.		3206	3049	2504	3146	2984	2338	1904	2021	1893	2527	79	2510
National Bank of Kenya Ltd		17783	15710	21621	25470	27071	28639	34722	34278	41995	47805	269	29780
National Industrial Credit Bank Ltd.		5571	6457	7939	12788	16988	21978	24806	35238	36977	45318	813	21897
Oriental Commercial Bank					638	542	733	823	823	2012	3266	512	1262
Paramount-Universal Bank Ltd.		1032	957	902	997	1163	1745	1875	2109	2547	3562	345	1747
Prime Bank Ltd.		2499	2966	4365	4737	6113	8289	10358	15662	19184	25512	1021	10397
Southern Credit Banking Corp Ltd		1626	2092	2694	3203	3620	3741	4322	4322	4308		731	3325
Stanbic Bank Kenya Ltd		5620	6390	8574	8092	12640	19760	22692	22692			2584	13308
Standard Chartered Bank (K) Ltd		45409	52315	54494	56971	59996	64879	73841	76898	86774	100504	221	67208
Transnational Bank Ltd.		770	912	523	1229	910	1264	1800	1891	1857	3037	394	1476
Victoria Commercial Bank Ltd		2232	2576	2799	3049	3585	3654	3430	3582	4073	4935	221	3370

Source: Calculated from CBK BSD Reports (2000-2010)

Table (11) shows the correlation between customer deposits and bank branch network. With a correlation of 0.6, there is a strong relationship between the two.

Table 11 Correlations between Deposits and Bank branch Network

		Number of bank branches	Deposits
Number of bank branches	Pearson Correlation	1	.604(**)
	Sig. (2-tailed)	.	.000
	N	434	386
Deposits	Pearson Correlation	.604(**)	1
	Sig. (2-tailed)	.000	.
	N	386	388

** Correlation is significant at the 0.01 level (2-tailed).
Source: Calculated from CBK BSD Reports (2000-2010)

4.2.8 Return on Deposits (ROD) Ratios for Kenyan Commercial Banks

Table (12) shows that the majority of return on deposits, (ROD) ratios, of the listed banks is positive and strong too. It is clearly shown that overall (ROD) ratios were fluctuated through the period for all banks. To most financial analysts, (ROD) is one of the best measures of bank profitability performance. It is calculated through dividing net profits by total deposits. This ratio reflects the bank management ability to utilize the customers' deposits in order to generate profits. Averages ROD were computed by summing up the ROD then dividing by the number of years.

The average of (ROD) for Citibank N.A is 53.7% during the period 2000-2010 as shown in table (12). Comparing it with other banks, K-Rep bank will be the second with ROD 24.73%, Transnational Bank third with ROD 18.04%, Development bank of Kenya fourth with ROD 10.26%, and Barclays Bank fifth (9.73%). Oriental Commercial Bank is the last one with average of ROD -2.61%.

Table 12 Return on Deposits Ratio at the Kenyan Banks

BANK	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	average
African Banking Corporation Ltd.		1.67	1.53	2.04	3.60	2.76	3.43	3.64	4.18	3.57	5.75	3.22
Bank of Africa Ltd					-0.45	0.17	1.24	2.86	1.07	2.10	2.45	1.35
Bank of Baroda		1.56	0.93	2.04	5.55	2.95	3.69	3.92	4.17	3.90	7.14	3.59
Bank of India		4.41	1.66	3.74	0.15	2.03	3.89	5.51	5.96	4.68	6.16	3.82
Barclays Bank of Kenya Ltd		7.37	3.65	6.16	37.94	6.41	7.06	6.49	6.34	7.15	8.70	9.73
CFC Bank Ltd.		2.55	2.53	2.24	12.55	2.50	3.67	4.42	2.13	2.39	2.89	3.79
Charterhouse Bank Ltd.		6.03	7.45	5.29	2.96	3.53	3.93					4.87
Chase Bank Ltd.		5.15	6.32	5.32	-0.46	3.09	3.43	4.21	3.46	3.14	3.17	3.68
Citibank, N.A.		3.15	4.71	3.62	481.08	5.43	6.04	6.02	10.75	9.19	7.53	53.75
City Finance Bank Ltd		6.25	29.41	15.28	14.86	0.27	-13.49	-12.1	0.00			5.06
Co- operative Bank of Kenya Ltd.		-2.64	0.46	0.68	15.72	1.60	2.56	4.18	5.07	4.07	2.17	3.39
Commercial Bank of Africa Ltd.		3.42	2.47	3.40	21.81	2.31	4.03	4.20	4.06	3.99	0.49	5.02
Consolidated Bank of Kenya ltd.		-0.75	4.29	0.77	-0.18	-0.65	0.65	0.91	2.59	2.40	69.42	7.94
Credit Bank Ltd.		3.26	2.28	2.73	7.03	3.94	4.59	4.93	2.85	2.97	1.04	3.56
Development Bank of Kenya Ltd.		14.20	5.46	13.29	15.16	14.22	9.40	9.67	7.66	7.80	5.75	10.26
Diamond Trust Bank Kenya Ltd.		0.96	2.27	2.69	2.10	2.64	4.10	3.56	3.99	4.50	6.40	3.32
Dubai Bank Ltd.		2.08	-6.53	2.24	6.53	4.08	2.50	1.40	0.68	0.91	0.25	1.41
Equatorial Commercial Bank Ltd.		1.50	3.28	4.00	4.49	3.57	2.86	1.77	-0.22	2.19	-0.42	2.30
Equity Bank Ltd					4.30	5.53	6.73	7.50	9.71	8.46	9.78	7.43
Family bank Ltd				7.35	4.94	3.71	6.35	4.45	0.00	3.27	3.18	4.16
Fidelity Commercial Bank Ltd.		2.69	2.45	1.88	0.16	1.17	1.32	1.78	1.93	1.06	5.23	1.97
Fina Bank Ltd.		1.28	1.57	2.06	-1.02	1.79	2.83	1.72	1.01	0.23	1.30	1.28
Giro Commercial Bank Ltd.		0.82	0.94	0.89	0.34	-0.13	1.31	0.83	2.46	3.11	7.63	1.82
Guardian Bank Ltd.		1.93	1.99	1.61	3.65	1.58	1.20	0.55	0.96	1.06	1.61	1.61
Habib AG Zurich		3.82	2.62	2.28	1.49	3.63	3.80	4.07	4.50	4.90	3.72	3.48
Habib Bank Ltd.		4.10	4.24	3.11	3.32	0.88	0.25	3.92	4.83	5.59	5.98	3.62
Housing Fin. Co. of Kenya Ltd.		-2.53	1.06	1.20	1.24	1.21	1.47	1.49	1.94	2.89	3.51	1.35
Imperial Bank Ltd.		4.99	5.58	6.57	5.75	4.73	5.47	6.57	6.46	6.54	9.12	6.18
Investments & Mortgages Bank Ltd		1.74	1.83	2.79	2.96	3.20	5.14	5.48		0.00		2.89
Kenya Commercial Bank Ltd		0.35	-6.72	1.72	1.97	3.13	4.25	4.51	4.91	4.66	0.07	1.88
K-Rep Bank Ltd.		13.91	10.48	10.18	6.87	2.44	4.59	4.24	-10.4	-6.51	211.55	24.73
Middle East Bank of Kenya Ltd.		2.50	1.97	3.15	1.14	3.86	4.28	4.94	1.48	2.32	8.15	3.38
National Bank of Kenya Ltd		-1.81	2.48	2.28	2.92	3.17	3.26	4.64	5.24	5.14	5.64	3.30
National Industrial Credit Bank Ltd.		6.77	5.27	4.52	2.92	2.37	3.07	4.22	4.18	4.14	5.33	4.28
Oriental Commercial Bank					-57.84	15.81	-8.87	25.39	0.00	1.64	5.60	-2.61
Paramount-Universal Bank Ltd.		1.17	0.94	1.22	1.20	1.36	1.78	2.29	2.42	1.65	7.89	2.19
Prime Bank Ltd.		2.21	2.39	1.88	2.17	2.04	2.30	3.06	2.94	2.94	3.02	2.50
Southern Credit Banking Corp Ltd		-3.94	0.67	1.82	1.90	0.86	0.86	0.95	0.00	-16.95		-1.54
Stanbic Bank Kenya Ltd		-5.16	0.55	-1.76	1.90	3.48	4.64	5.26	0.00			1.11
Standard Chartered Bank (K) Ltd		7.06	6.15	7.36	33.26	5.83	5.85	6.63	6.12	7.75	7.63	9.36
Transnational Bank Ltd.		28.71	13.38	23.14	84.21	6.49	3.64	4.50	6.40	4.74	5.24	18.04
Victoria Commercial Bank Ltd		0.90	0.85	1.11	1.48	3.45	3.50	4.40	4.75	5.30	6.30	3.20

Source: Calculated from CBK BSD Reports (2000-2010)

4.2.9 Ranks of Kenyan Banks Based on Financial Indicators

In order to summarize the classification of the banks based on rank of their activities and profitability ratios, table (13) contains ranks of the positions for these banks. Barclays Bank of Kenya is number one in profits, assets and shareholder's equity and in deposits, number four in ROA, number three in ROE and number five in ROD.

Standard chartered Bank is in position two in ROE and profits, position three in assets, ROA, and deposits, position four in shareholder's equity and position six in ROD. Equity Bank, on the other hand, is closely following being at position two in both shareholder's equity and ROA, position three in profits, position five in assets and deposits, position six in ROE, and position eight in ROD.

Table 13 Ranks of Kenyan Banks Based on Financial Indicators

BANK	PROFITS	ASSETS	ROA	EQUITY	ROE	DEPOSITS	ROD
African Banking Corporation Ltd.	22	23	19	29	19	25	26
Bank of Africa Ltd	28	17	36	19	38	18	38
Bank of Baroda	15	15	13	18	7	15	19
Bank of India	17	19	10	22	8	12	15
Barclays Bank of Kenya Ltd	1	1	4	1	3	1	5
CFC Bank Ltd.	10	8	24	10	22	7	16
Charterhouse Bank Ltd.	25	36	8	41	16	36	12
Chase Bank Ltd.	24	24	22	30	21	21	17
Citibank, N.A.	5	7	7	5	12	9	1
City Finance Bank Ltd	41	42	41	39	42	42	10
Co- operative Bank of Kenya Ltd.	6	4	33	6	24	4	22
Commercial Bank of Africa Ltd.	7	9	15	14	5	8	11
Consolidated Bank of Kenya ltd.	37	28	38	15	37	20	7
Credit Bank Ltd.	32	38	20	36	29	35	20
Development Bank of Kenya Ltd.	21	27	11	24	30	38	4
Diamond Trust Bank Kenya Ltd.	11	12	17	13	18	11	24
Dubai Bank Ltd.	39	33	39	40	40	41	36
Equatorial Commercial Bank Ltd.	31	30	26	35	31	28	30
Equity Bank Ltd	3	5	2	2	6	5	8
Family bank Ltd	16	20	6	21	11	23	14
Fidelity Commercial Bank Ltd.	35	39	29	42	28	33	32
Fina Bank Ltd.	30	21	34	26	32	22	39
Giro Commercial Bank Ltd.	34	22	30	34	27	24	34
Guardian Bank Ltd.	33	25	32	31	36	27	35
Habib AG Zurich	20	26	12	33	10	26	21
Habib Bank Ltd.	26	35	14	37	15	31	18
Housing Fin. Co. of Kenya Ltd.	23	13	35	16	41	17	37
Imperial Bank Ltd.	14	18	5	20	4	19	9
Investments & Mortgages Bank Ltd	12	14	42	12	17	13	28
Kenya Commercial Bank Ltd	4	2	31	3	9	2	33
K-Rep Bank Ltd.	40	29	21	8	39	32	2
Middle East Bank of Kenya Ltd.	29	32	23	28	33	34	23
National Bank of Kenya Ltd	8	6	27	9	13	6	25
National Industrial Credit Bank Ltd.	9	11	9	11	20	10	13
Oriental Commercial Bank	38	40	16	27	35	40	42
Paramount-Universal Bank Ltd.	36	41	28	38	34	37	31
Prime Bank Ltd.	18	16	25	17	25	16	29
Southern Credit Banking Corp Ltd	42	34	40	23	1	30	41
Stanbic Bank Kenya Ltd	13	10	37	7	26	14	40
Standard Chartered Bank (K) Ltd	2	3	3	4	2	3	6
Transnational Bank Ltd.	19	37	1	25	14	39	3
Victoria Commercial Bank Ltd	27	31	18	32	23	29	27

Source: Calculated from CBK BSD Reports (2000-2010)

4.3 Model Fitting and Test of Hypothesis

4.3.1 Contribution of Bank Branches to Return on Assets

To determine the relationship between branch network spread and financial performance of the banks, we start with return on investment (ROA). This is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings.

A simple regression model was fit to determine the relationship between branch network, profit, assets with ROA. Equation 4.1 describes the model:

Equation 4.1

$y_i=b_0+b_1x_{i1}+b_2x_{i2}+ \ldots +b_nx_{in}+\varepsilon_i$

Where:

y_i is the value of the i^{th} case of the dependent scale

n is the number of predictors

b_j is the value of the j^{th} coefficient, $j=0, \ldots, p$

x_{ij} is the value of the i^{th} case of the j^{th} predictor

ε_i is the error in the observed value

In this case, ROA is y, profits is x_1, assets is x_2 and branch network is x_3, and n=3, and bj is the value of coefficient for constant, profits, assets and branch network.

The Pearson correlation coefficient is a measure of linear association between two variables. The values of the correlation coefficient range from -1 to 1. The sign of the correlation coefficient indicates the direction of the relationship (positive or negative). Table (14) shows the correlations between the variables. There is a strong correlation between assets and number of branches (0.68), between profits and assets (0.8) and a weak relationship between ROE and number of bank branches (0.12).

The significance level (or p-value) is the probability of obtaining results as extreme as the one observed. If the significance level is very small (less than 0.05) then the correlation is significant and the two variables are linearly related. If the significance level is relatively large, for example, 0.50, then the correlation is not significant, and the two variables are not linearly related. All significance values in our model are small ($p < 0.005$) implying that all the variables are linearly related.

Table 14 Correlation between ROA and Profits, Assets, and Bank Branches

		Return on Assets	Profits	Assets	Number of bank branches
Pearson Correlation	Return on Assets	1.000	0.389	0.209	0.120
	Profits	0.389	1.000	0.800	0.554
	Assets	0.209	0.800	1.000	0.680
	Number of bank branches	0.120	0.554	0.680	1.000
Sig. (1-tailed)	Return on Assets	.	0.000	0.000	0.007
	Profits	0.000	.	0.000	0.000
	Assets	0.000	0.000	.	0.000
	Number of bank branches	0.007	0.000	0.000	.

Source: Calculated from CBK BSD Reports (2000-2010)

R, the multiple correlation coefficient, is the correlation between the observed and predicted values of the dependent variable. The values of R, for models produced by the regression procedure, range from 0 to 1. Larger values of R indicate stronger relationships. R squared is the proportion of variation in the dependent variable explained by the regression model. The sample R squared tends to optimistically estimate how well the models fit the population. Adjusted R squared attempts to correct R squared to more closely reflect the goodness of fit of the model in the population. The value of R derived from the study population is 0.426, meaning there is an average relationship between the predictors and the dependent variable.

Table 15 Model Summary for ROA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.426(a)	.181	.175	2.37568

a Predictors: (Constant), Number of bank branches, Profits, Assets
Source: Calculated from CBK BSD Reports (2000-2010)

The output for Regression displays information about the variation accounted for by your model. From our study population, the regression sum of squares is less than residual sum of squares, but the significance value of the F statistic is less than 0.05, meaning that the independent variables do a good job in explaining the variation in the dependent variable.

Table 16 Analysis of Variance for ROA model

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	518.027	3	172.676	30.595	.000(a)
	Residual	2342.206	415	5.644		
	Total	2860.232	418			

a Predictors: (Constant), Number of bank branches, Profits, Assets
b Dependent Variable: Return on Assets
Source: Calculated from CBK BSD Reports (2000-2010)

The unstandardized coefficients are the coefficients of the estimated regression model. Table (17) shows the predicted model.

In this case, equation 4.2 fits our model:

Equation 4.2: Model for ROA

$$ROE = 1.716 + 0.001 profits - 0.006 bank\_branches$$

Table 17 Coefficients [(a)] for ROA Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.716	0.14		12.281	0
	Profits	0.001	0	0.615	8.318	0
	Assets	0	0	-0.247	-2.94	0.003
	Number of bank branches	-0.006	0.007	-0.053	-0.87	0.385

[(a)] Dependent Variable: Return on Assets
Source: Calculated from CBK BSD Reports (2000-2010)

4.3.2 Contribution of Bank Branches to Return on Equity

The other financial performance indicator that was measured against bank branches was return on equity (ROE) against other indicators like shareholder's equity, profits and bank branch network. Return on equity is the amount of net income returned as a percentage of shareholders equity. Return on equity measures a company's profitability by revealing how much profit a company generates with the money shareholders have invested.

A model was fit (see equation 4.3) to determine these relationships:

Equation 4.3

$$y_i = b_0 + b_1 x_{i1} + b_2 x_{i2} + \ldots + b_n x_{in} + \varepsilon_i$$

Where:

y_i is the value of the i^{th} case of the dependent scale

n is the number of predictors

b_j is the value of the j^{th} coefficient, $j=0, \ldots, p$

x_{ij} is the value of the i^{th} case of the j^{th} predictor

ε_i is the error in the observed value

In this case, ROE is y, profits is x_1, branch network is x_2, shareholders' equity is x_3, n=3 and b_j is the coefficient for constant, profits, branch network and shareholder's equity.

Table (14) shows the correlations between the variables. There is a strong correlation between ROE and profits (0.507) and a less relationship between ROE and shareholder's equity (0.382) and branch network (0.228). The significance values for the model are small ($p < 0.005$) hence the variables fit the model well and are linearly related.

Table 18 Correlation Coefficients for ROE

		Return on Equity	Profits	Number of bank branches	Shareholders' Equity
Pearson Correlation	Return on Equity	1	0.507	0.228	0.382
	Profits	0.507	1	0.552	0.923
	Number of bank branches	0.228	0.552	1	0.586
	Shareholders' Equity	0.382	0.923	0.586	1
Sig. (1-tailed)	Return on Equity	.	0	0	0
	Profits	0	.	0	0
	Number of bank branches	0	0	.	0
	Shareholders' Equity	0	0	0	.

Source: Calculated from CBK BSD Reports (2000-2010)

From table (19), the value of R=0.554 meaning there is a considerable strong relationship between the variables, hence the model is fit.

Table 19 Model Summary [b] for ROE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.554[(a)]	0.307	0.3	11.99011

[a] Predictors: (Constant), Shareholders' Equity, Number of bank branches, Profits
[b] Dependent Variable: Return on Equity
Source: Calculated from CBK BSD Reports (2000-2010)

Table (20) shows the analysis of variance for the model. From the results, the regression sum of squares is less than residual sum of squares, but the significance value of the F statistic is less than 0.05, meaning that the independent variables do a good job in explaining the variation in the dependent variable.

Table 20 Analysis of Variance ANOVA[(b)] for ROE

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18195.667	3	6065.222	42.189	.000[(a)]
	Residual	41116.115	286	143.763		
	Total	59311.782	289			

a Predictors: (Constant), Shareholders' Equity, Number of bank branches, Profits
b Dependent Variable: Return on Equity
Source: Calculated from CBK BSD Reports (2000-2010)

Table (21) shows our model coefficients; thus equation 4.4 fits our model:

Equation 4.4

$$ROE = 16.245 + 0.011 profits - 0.007 bank\ branches - 0.002 shareholders'\ equity$$

Table 21 Coefficients[(a)] for ROE Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	16.245	0.883		18.39	0
	Profits	0.011	0.001	1.045	8.153	0
	Number of bank branches	-0.007	0.037	-0.011	-0.178	0.858
	Shareholders' Equity	-0.002	0	-0.576	-4.371	0

[a] Dependent Variable: Return on Equity
Source: Calculated from CBK BSD Reports (2000-2010)

4.3.3 Test of Hypothesis

As mentioned in this study, there was one alternative hypothesis that stated that there is a relationship between branch network spread and financial performance measured by ROA and branch network, and the independent variables (ROE, profits, deposits, ROD and shareholder's equity) of commercial banks in Kenya. Correlations and analysis of variance were used to test the hypotheses of the study.

The result of correlations analysis between independent variables and dependent variable showed that existence of moderate positive correlation between financial performance and branch network (0.126). A moderate positive correlation relationship (0.592) exists between ROA and ROE. Moreover, there is a significant positive correlation between financial performance (ROA) and the independent variables with correlation coefficients of 0.037, 0.592, and 0.435 respectively. Based on these correlations, then the hypothesis was not rejected. Thus, there is a positive relationship among bank branches, return on assets, profits, return on deposits and return on equity. Table (23) shows these correlation coefficients.

The summary results of the analysis of variance (ANOVA) are shown in table (19) for testing the same hypothesis. The testing rule is to not reject alternate hypothesis (H1) if the calculated F.Sig less than 0.05. Therefore, there is a positive impact of independent variables of financial performance measured by ROA against bank branches size. It is clear from table (24) that values of F.Sig .000 and .000 are less 0.05 level. Therefore, the hypothesis was not rejected which means that there is a relationship between bank branch network and financial performance of commercial banks in Kenya.

Table 22 Correlation between branch network and key financial performing indicators

		Number of bank branches	Return on Deposits	Return on Equity	Profits	Return on Assets
Pearson Correlation	Number of bank branches	1	-0.021	0.269	0.494	0.126
	Return on Deposits	-0.021	1	0.096	0.071	0.037
	Return on Equity	0.269	0.096	1	0.463	0.592
	Profits	0.494	0.071	0.463	1	0.435
	Return on Assets	0.126	0.037	0.592	0.435	1
Sig. (1-tailed)	Number of bank branches	.	0.358	0	0	0.014
	Return on Deposits	0.358	.	0.048	0.109	0.262
	Return on Equity	0	0.048	.	0	0
	Profits	0	0.109	0	.	0
	Return on Assets	0.014	0.262	0	0	.

Source: Calculated from CBK BSD Reports (2000-2010)

Table (23) describes the analysis of variance for Independent variables impact on financial performance measured by ROA and branch network

Table 23 (ANOVA[c]) Independent Variables Impact on Financial Performance Measured By Roa and Branch Network

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43217.679	3	14405.893	32.817	.000[a]
	Residual	129937.238	296	438.977		
	Total	173154.917	299			
2	Regression	46668.259	4	11667.065	27.211	.000[b]
	Residual	126486.658	295	428.768		
	Total	173154.917	299			

[a] Predictors: (Constant), Profits, Return on Deposits, Return on Equity
[b] Predictors: (Constant), Profits, Return on Deposits, Return on Equity, Return on Assets
Dependent Variable: Number of bank branches
Source: Calculated from CBK BSD Reports (2000-2010)

4.4 Summary

In this chapter, the researcher has analyzed the Central Bank of Kenya's reports on commercial banks and has provided a clear understanding of the role of branch network in financial performance of the banks. From the analysis, it is clear that there is a strong relationship between bank branch network and financial performance of Kenyan commercial Banks. It was not possible to generate figures and charts because of the large number of banks (42).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter gives a conclusion to the study. Section 5.2 of this chapter provides the summary of key findings, section 5.3 provides the research conclusions, 5.4 explains limitations of the study and section 5.5 gives recommendations for further research.

5.2 Summary of Key Findings

This study endeavored at conceptualizing the relationship between branch network and financial performance of commercial banks. Secondary data was used to get this relationship. The data was got from bank performance reports for years 2000 to 2010 from central bank of Kenya. This data was analyzed and reports generated regarding the banks' performance.

As the study found out in Kenya, the bank with the highest growth rate was Chase Bank rising from one branch in 2000 to 14 branches in year 2010, reflecting a growth rate of 1300%. It was followed closely by Diamond Trust Bank (1100%), and Fidelity Commercial Bank was number three in branch network growth (700%). The bank with the largest branch network as by December 2010 was Kenya Commercial Bank with 165 branches, followed by Equity Bank (123 branches.)

With regard to profits, the bank with the highest average profits through the years is Barclays Bank with average of KSh 5601.6M, followed by Standard Chartered with KSH3987.3M and Equity Bank with KSh 4271.6M. K-Rep Bank had the highest growth rate of 81414% in year 2010 comparing with year 2000, followed by Consolidated Bank with 39707%. There was a positive linear relationship between profits and bank branch network, with a correlation of 0.6.

The banks showed a considerable growth in their total assets. There was an average growth of 591% for all banks within the study period (2000-2010), with Dubai Bank having the highest growth rate in its assets (4274.9%), followed by Equity Bank with a growth rate of 2150% in its assets. Barclays Bank was found to be number one in average total asset, followed by Kenya

Commercial Bank, Standard Chartered Bank and City Finance bank was the number last. There was a significant strong relationship between bank size and total assets with a correlation of 0.6.

To determine how efficient management is at using its assets to generate earnings, Return on Assets ratio is calculated. This is an indicator of how profitable a company is relative to its total assets. Transnational Bank was the bank with the highest average ROA of 6.62%, followed by Equity Bank with ROA equals to 5.00%. Standard Chartered Bank was in the third position with ROA 4.70%, second last position is Southern Credit Bank with ROA -0.16% and the last position is belonged to City Finance bank with ROA -1.73%. Relationship between branch network and return on assets was minimal (0.12).

K-Rep bank showed the highest growth rate in its total shareholders' equity (7446%) in year 2010 comparing with its owners equity in year 2000. This was followed by Consolidated Bank with a growth rate of 2519%. The bank with the lowest growth rate was Southern Credit Banking Corporation, with a rate of 16%. Barclays Bank had the highest average shareholders' equity of KSh17934M, followed by Equity Bank with KSh 14949M. To measure a company's profitability by revealing how much profit a company generates with the money shareholders have invested, return on equity is calculated. On average, Standard Chartered Bank had the highest ROE ratio of 50% (excluding the ratios for Southern Credit Bank, which showed abnormal ROE ratio). Barclays Bank, Imperial Bank and Commercial Bank of Africa followed in that order. There was low relationship between ROE and branch network.

The other financial factor that was addressed was deposits, where there was an average growth of 643% for all banks. The bank that exhibited the highest growth rate was Chase Bank recording 2900%, followed by Stanbic Bank of Kenya, Equity Bank and Family Bank with 2584%, 1876% and 1530% respectively. The bank with the highest average deposits was Barclays bank and with least deposits was City Finance Bank. With a correlation of 0.6, there was high relationship between bank branch networks with customers' deposits.

5.3 Conclusions and Recommendations

The following conclusions were made with reference to the study. First, there was a considerable growth in all areas of study, including bank branch network, total profits, assets, shareholders' equity, and in deposits. The relationship between these financial performance factors and branch network was high, with a correlation of more than 0.5. This means that banks' growth and financial performance highly relates to branch network.

Based on the reported ranking, it is concluded that the bank with higher predictors of total assets, deposits, or shareholder equity does not always mean that it has better profitability performance.

This study examined these predictors impact on the financial performance of Kenyan commercial banks. The regression analysis results showed that financial performance of the banks was strongly and positively influenced by the bank branch network. This was agreed with the correlation analysis among the variables of the study which indicated the existence of positive relationships.

The importance of this study may be viewed from its contribution to fill an important gap in literature. That is, findings of this study can add to the existing body of the literature, and can serve as a starting point on which future studies can be done. On the practical dimension, this study may help bank decision makers to focus on the major banking activities that may increase the bank ranking and financial performance positions comparing with other banks. Such information should help the management of commercial banks in creating appropriate financial strategies for attaining the required planned financial performance.

Finally, the study provides bank managers with understanding of activities that would enhance their banks financial performances. The results of this study imply that it might be necessary for a bank management to take all the required decisions to enhance the financial positions of the bank.

5.4 Limitations of the Study

This research did not go without challenges. First, the study data was provided in portable document format (pdf), which took time to come up with the final data to analyze. Software to convert from pdf to Excel had to be used, which added to unforeseen costs. Second, some banks were not in operation for some years and this led to excluding two banks from the study (UBA Kenya Bank Ltd and Jamii Bora Bank Ltd). While other banks with missing information for some years were included, it was tasking to calculate their corresponding growth rates, which had to use different base years as compared to other banks with all the information needed for all years.

5.5 Recommendations for Further Research

This research has thrown up a question in need of further investigation. From the analysis, it was concluded that the bank with higher predictors of total assets, deposits, or shareholder equity does not always mean that it has better profitability performance. This is an area that needs to be studied further to bring light as to why this happens.

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APPENDIX 1: Commercial Banks in Kenya as at December 2010

Bank Name	Number of Branches
1. African Banking Corporation Ltd	10
2. Bank of Africa Kenya Ltd	18
3. Bank of Baroda (K) Ltd	11
4. Bank of India	5
5. Barclays Bank of Kenya ltd	118
6. CFC Stanbic Bank Ltd	20
7. Charterhouse Bank Ltd	8
8. Chase Bank (K) Ltd	14
9. Citibank N.A Kenya	4
10. Commercial Bank of Africa Ltd	20
11. Consolidated Bank of Kenya Ltd	13
12. Co-operative Bank of Kenya Ltd	87
13. Credit Bank Ltd	6
14. Development Bank of Kenya Ltd	3
15. Diamond Trust bank Kenya Ltd	36
16. Dubai Bank Kenya Ltd	5
17. Ecobank Kenya Ltd	20
18. Equatorial Commercial Bank Ltd	12
19. Equity Bank Ltd	123
20. Family Bank Ltd	52
21. Fidelity Commercial Bank Ltd	8
22. Fina Bank Ltd	15
23. First Community Bank Ltd	18
24. Giro Commercial Bank Ltd	7
25. Guardian Bank Ltd	7
26. Gulf African Bank Ltd	15
27. Habib Bank A.G Zurich	5
28. Habib Bank Ltd	5
29. Imperial Bank Ltd	16

30. I & M bank Ltd	15
31. Jamii Bora Bank Ltd	1
32. Kenya Commercial Bank Ltd	165
33. K-rep Bank Ltd	31
34. Middle East Bank (K) Ltd	3
35. National Bank of Kenya Ltd	53
36. NIC Bank Ltd	21
37. Oriental Commercial Bank Ltd	6
38. Paramount Universal Bank Ltd	6
39. Prime Bank Ltd	14
40. Standard Chartered Bank Kenya Ltd	33
41. Trans-National Bank Ltd	18
42. UBA Kenya Bank Ltd	4
43. Victoria Commercial Bank Ltd	2
44. Housing Finance Company of Kenya Ltd (NBFI)	11

SOURCE: Bank Supervision Annual Report 2010