BANK RESTRUCTURING, FINANCIAL SERVICES, FIRM CHARACTERISTICS AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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DECLARATION

I hereby declare that the work contained in this research thesis is my original work, and has not previously in part or in its entirety been presented at any other University for an award of a degree. All materials referred to has been duly acknowledged by the University.

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DEDICATION

This thesis is dedicated to all people who struggle, are harassed unnecessarily, get hurt and even lose their lives only for others to get rewarded.

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ABBREVIATIONS AND ACRONYMS

ADB   Agricultural Development Bank

AERC   Africa Economic Research Consortium

AFI   Alliance for Financial Services

AMPI   African Mobile Phone Financial Services Initiative

ANM   Agent Network Manager

ANMC   Agent Network Management Companies

ANOVA   Analysis of Variance

AR   Asset Restructuring

ASCAs   Accumulated Savings and Credit Associations

ATM   Automated Teller Machine

ATMs   Automated Teller Machines

BSA   Bank Supervision Application

CAMEL   Capital Adequacy, Asset Quality, Management, Earnings and liquidity

CBK   Central Bank of Kenya

CIS   Credit Information Sharing

CL   Customer Loans

CR   Capital Restructuring

CRB   Credit Reference Bureau

DFIs   Development Finance Institutions

DP   Deposits

DTMs	Deposit Taking Microfinance Institutions
EDI	Economic Development Institute
EFT	Electronic Funds Transfer
EFTS	Electronic Funds Transfer System
EPS	Earnings per Share
ESAF	Eastern and Southern African
EVA	Economic Value Added
FAP	Financial Access Partnership
FOSA	Front Office Services
FR	Financial Restructuring
IMF	International Monetary Fund
FRC	Financial Reporting Centre
ICT	Information and Communication Technology
IPAR	Institute of Policy Analysis and Research
KBRR	Kenya Banks' Reference Rate
KCB	Kenya Commercial Bank
KEPSS	Kenya Electronic Payment and Settlement System
KIPRA	Kenya Institute of Policy Research and Analysis
KPOSB	Kenya Post Office Savings Bank
LBOs	Leverage Buyouts
MAC	Monetary Affairs Committee

M&A	Mergers and Acquisitions
MFS	Mobile Phone Financial Services
MFIs	Micro-Finance Institutions
MNCs	Multinational Corporations
MPC	Monetary Policy Committee
NIM	Net Interest Margin
NPLs	Non-Performing Loans
NSE	Nairobi Securities Exchange
NSE	Nairobi Securities Exchange
NSI	Net Settlement Instructions
OR	Operational Restructuring
OS	Ownership of the banks
PBT	Profit Before Tax
POS	Point of Sale
ROA	Return on Assets
ROE	Return on Equity
ROE	Return on Equity
ROS	Return on Sales
ROSCAs	Rotating Savings and Credit Associations
RTGS	Real Time Gross Settlement
RTGS	Real Time Gross Settlement

SACCO	Savings and Credit Co-operative Society
SACCOs	Savings and Credit Co-operative Societies
SADC	South Africa Development Community
SMEs	Small and Medium Enterprises
SOEs	State Owned Enterprises
SPSS	Statistical Package for Social Services
SZ	Size of banks
TAMC	Thai-Assets Management Corporate
TRUST	Total Risk Weighted Assets
US	United States
UK	United Kingdom
VIF	Variance Inflation Factor
VSAT	Very Small Aperture Technology

ABSTRACT

The main objective of the study was to investigate the relationship between bank restructuring, financial services, bank characteristics and financial performance of commercial banks in Kenya. The population of the study was the 44 commercial banks licensed and registered under the banking act to do business in Kenya. This study was able to gather information from the available financial statements of 39 commercial banks which were in operation for the period 2002 to 2014, therefore data for 5 commercial banks was not available. Descriptive and inferential data analysis methods were used to analyze the secondary data collected. The empirical findings conclude that commercial banks use all the four types of bank restructuring which included financial, capital, operational and asset restructuring. The findings of the first model revealed that capital restructuring and asset restructuring were the only variables found to have significant positive and negative influence respectively on the performance of commercial banks in Kenya. With the inclusion of moderating variables in the empirical model, it was discovered that only operational restructuring had a significant negative effect on the profitability of banks, while the influence caused by the interaction of capital restructuring and size was also significant but positive. In testing the third hypothesis, deposit and customer loans were used as intervening variables on the relationship between bank restructuring and financial performance, where financial restructuring and capital restructuring were found to significantly cause an increase in the profits of commercial banks while operational restructuring and deposits were found to have a significant negative effect on bank profits. The composite variable of financial services was not found to have a significant effect on bank financial performance. The results on the joint model where all the variables were included, realized a significant positive effect of financial restructuring, capital restructuring and bank size on the financial performance of banks, but asset restructuring, customer loans and bank ownership were found to have a significant negative effect on financial performance. Therefore, the research reveals that operational restructuring, and deposits did not influence banks profitability. The research concludes that the performance of most commercial banks in Kenya is determined through restructuring banks' capital and asset quality ratios and that the size of banks is a significant variable in influencing financial performance of all banks. Managing bank restructuring together with deposits and customer loans increases profitability of commercial banks. Differences in financial performance was identified in both locally owned and foreign owned banks meaning that ownership of banks matter when it comes to influencing profitability. The study recommends that there is need to institute policy reforms geared towards viable restructuring for different banks to improve profitability and enhance financial inclusion. The study contribution in terms of the methodological aspects is that the Baron and Kenny (1986) should not be used blindly since variables not found to be significant in the absence of moderation and mediation might become significant when the moderation and mediating variables are included in the relationship. The conceptual contribution is that bank restructuring in Kenya does matter because it significantly contributes to profits.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Commercial banks in an economy play the role of mobilizing resources from savers and transferring funds to borrowers so as to improve efficiency of the financial markets. They also serve as a point of convergence between those with surplus funds and those in need of funds. In economies where commercial banks exist there is reduction of moral hazard, information asymmetry, adverse selection and transaction costs while financial market participants are able to monitor financial market activities (Berger & Humprey, 1997). The ability of commercial banks to provide market knowledge, transaction efficiency and contract enforcement create demand for their services by market participants (Williams & Nguyen, 2005). Commercial banks offer various services to borrowers, savers and other financial market participants including; extending loans, accepting deposits, having in place Automated Teller Machine (ATM) services, agency banking, taking services to the people by opening branches close to their customers and suppliers and use of more relaxed modern banking halls (Dubel & Berlin, 2013).

The theory of financial intermediation by Merton (1995) explains the existence of financial institutions and the fact that they are dependent on information asymmetry and are subjected to high transaction costs. When banks are inefficient in extending their financial services, they normally undergo restructuring by way of increasing the capital base, dealing with the problem of nonperforming loans or increasing their functions while maintaining or changing the status quo. Other strategies that

commercial banks engage in to improve financial intermediation include mergers and acquisitions (Andries & Cuza, 2009).

The financial intermediation theory contends that if savers and borrowers had a better way of convergence, and where financial market participants are able to access market information the role of financial institutions and financial regulation would significantly diminish (Barako, Ross & Brown, 2013). Where financial institutions including commercial banks exist information asymmetry, moral hazard and transaction costs are reduced (Klein *et. al.*, 2005). Ownership structure is import in influencing the financial performance of commercial banks. Large financial institutions are known to offer more financial services than small financial institutions (Yildrim, 2013). Whereas financial institutions that are foreign owned are more profitable and more efficient, privately owned and locally owned financial institutions have a wider outreach than their foreign owned counterparts and tend to be less profitable because of high overhead costs (Andries & Cuza, 2009).

The agency theory reveals that managers of financial institutions are agents of the shareholders and they are interested in maximizing perquisites. Organisations therefore incur agency costs to ensure that managers do not maximize their own interest at the expense of the interest of the owners (Jensen & Smith, 2000). The institutional theory addresses issues relating to structures in institutions and emphasizes the fact that the processes by which social structures become established as authoritative guidelines for acceptable social behavior within organisations is an important aspect (Scott, 2004). Through restructuring organizations are enabled to change their form and structure so that they can be more efficient and can have a wider outreach. Efficiency of financial intermediation is dependent on the levels of corporate governance in organizations which is determined by the caliber of

management in organizations as well as the structures of institutions that these managers are in charge off.

Hoenig and Morris (2012) observe that broadening banking activities is as a result of complications in bank management, market regulation, monitoring and risk management. Bank management is in-charge of managing risk and markets as well as monitoring and regulating banks making it necessary to have in place bank restructuring (Berger et.al. 1995; Berger, 1998; Cole & Gunther, 1998). The existence of an appropriate legal and regulatory framework is important for successful bank restructuring (Kwaning, Churchill & Opuku, 2014; Chang *et. al.*, 2014). Expansion of services in a more efficient manner and to a bigger clientele using automated techniques is the intention of many commercial banks in many countries. Additionally, increasing capital levels, addressing the problem of nonperforming loans and devising strategies for survival in the competitive environment is important for banks. Bank restructuring is a phenomenon for large banks because they tend to have more resources in form of capital and they tend to have a bigger width and depth than small banks. Large banks also tend to have a diverse ATM network which enables them to reach a wide range of clientele and provide diverse financial services to their clients (Williams & Nguyen, 2005).

1.1.1 Firm Financial Performance

Organizational performance is about efficiencies and effectiveness in the utilization of the resources of the organization and the achievement of the goals of these organizations (Worthington, 2009). According to Cooperman *et. al.* (2000) performance can either be financial or non-financial. Capacity building is accorded to organizations that report good performance and these organizations are given the ability to efficiently and profitably coexist in the internal and external business

environment which is competitive (Gual & Clemente, 1999). Kaplan and Norton (1996) argued that it is essential to measure institutional performance based on financial performance metric incorporating both financial and nonfinancial data. The argument by the two authors is that the balanced scorecard approach is from the perspective that non-financial data and financial data is necessary for measuring financial performance of firms and is essentially obtained from credible sources. Kaplan and Norton (2001) states that the performance measurement framework includes the aspects of financial perspective, internal business environment perspective, customer perspective and product innovations perspective. Every scorecard relies on the typical financial objectives of profitability, earnings of assets and mobilization of revenue. The financial perspective objective of the scorecard enables senior management of businesses to specify not only the metric by which the long-term success of the enterprise will be measured, but also the final result objectives. The measure of a manager's ability and effort is at the peak when the balanced score card is used and an interactive control system is put in place (Lipe & Satterio, 2000).

According to Roberts (2007) the best performance measures contain inputs which facilitate organizations to focus their actions in achieving their long-term objectives. Measures of performance can be described as accounting measures, market based measures, the Tobin's Q, the Economic Value Added (EVA) and the non-accounting measures. Market based measures are dependent on market information such as the capital market data and banking sector data that is vetted and audited before being released to the public domain. Non-accounting measures of financial performance include employee efficiency, customer satisfaction, business expansion and information communication technology, branch rationalization, and export of services

such as human capital to other countries (Dziobek & Pazarbasioglu, 1998; Worthington, 2009).

Accounting measures are majorly financial measures of performance which rely on balance sheet and income statement data. Financial performance measures rely on financial information which may be qualitative or quantitative and are return on assets (ROA), return on equity (ROE) and return on sales (ROS) (Ho & Mckay, 2002). Rose (1994) states that the most commonly used measures of performance of financial institutions are return on assets, return on equity, equity capital ratio, net interest margin, and the spread which is the difference between incomes from interest bearing assets and the expenses from interest paying liabilities.

1.1.2 Bank Restructuring

Restructuring deals with the act of reorganizing the legal framework, ownership structure, operational activities, financial structure or other aspects of an organization for the purpose of enhancing its profitability and preparing it for its current needs (Hoeing & Morris, 2012). Bank restructuring is intended to restore and maintain faith and confidence in the banking system and profitability and efficiency in the individual banks (Nor, *et. al.*, 2009). Bank restructuring also refers to increasing surveillance and prudential regulation in order to increase the intermediation process of the banking system (Mario, 2014). Bank restructuring is majorly undertaken to enhance financial performance and sometimes, to impose checks and balances to reduce the possibility of a financial crisis which may either have local or global implications (Birchil & Simmons, 2010).

Bank restructuring is usually undertaken to address the problems in individual banks experiencing banking crisis or to solve the problems affecting the entire banking system. Hoggarth *et. al.* (2004) and Emilia, Gupta and Weisin (2007) state that

absence of recognizing and taking quick actions on individual banking institutions can accumulate problems on assets as well as organization itself and eventually can either increase or hide problems of systems calling for pre/non crisis bank restructuring). Diagnosing banking problems before banking crisis is experienced is necessary for ensuring a sound financial system (Hawkins & Turner, 1999). In most cases banks are forced to restructure following a banking crisis referred to as the post crisis scenario and may involve mergers, direct government support and regulatory forbearance (Bovenzi, 2002; Wood, 2002; Demirguc-Kunt & Detragiache, 2002). Financial market managers may embark on individual banks restructuring or systemic bank restructuring aimed at addressing a systemic crisis in the banking system (Borio, 2003; Hoggarth *et. al.*, 2004). Strategic restructuring reduces financial distress simultaneously by reducing tensions between borrowers and owners so that they can facilitate a prompt resolution of a needy situation (Klingebiel *et. al.*, 2001; Anandarajan, Hasan, & Lozano-Vivas, 2005).

Dziobek (1998) and Dziobek and Pazarbasioglu (1998) states that there are four main types of bank restructuring and they include; financial restructuring, operational restructuring, asset restructuring and capital restructuring. Financial restructuring focuses on the financial structure of the banking institution and is usually concerned about the liability and capital structures of banking institutions. The most significant part of the banks liabilities is customer deposits and long term debt tends to form a very small proportion of the financial structure of banking institutions. Operational restructuring focuses on reorganizing the activities of banks including their governance structure and also entails closing down or downsizing poorly performing entities or branches, downsizing and closing down product lines to reduce costs of bank operations. Asset restructuring entails reducing the poor performance in banks

by increasing the liquidity of assets by holding more of current assets while ensuring that a large proportion is financial assets, and reducing the level of non-performing loans through provisioning for problem loans and selling off bad loans.

In the case of capital restructuring, this involves increasing the financial performance in banks by way of substitution of short-term debt and junior long-term debt with longer- term debt obligations (by converting debt to equity) to increase the financial structure of banks (Daunders & Senbet, 1995; Karacadag & Taylor, 2000; Wall & Peterson, 1995). It sometimes involves direct capital injection by the shareholders and other times a bailout by government whereby additional capital is channeled into the banking entity by government (Dziobek & Pazarbasioglu, 1998; Rose, 1994). Bank restructuring is however not limited to the four types of bank restructuring. Other types of bank restructuring identified by Bonish and Monte-Negret (1998) and Franks and Sanzbar, (2002) include; market-based solutions, carving out bad assets, establishing an asset recovery agency, changing the guard, creating phoenixes, recapitalization, change of ownership structure, restructuring borrowers, institutional arrangements, counting the monetary and fiscal costs, appointment of interim management, operational reforms and legal, regulatory and policy review.

The main factors that lead to bank restructuring include; bank failures, low profits (Hoggarth *et. al.*; 2004), high level of nonperforming loans, depressed asset prices, sharp real increase in interest rates and mergers and acquisitions (Claessens *et. al.*, 2011). Additionally, banks that are inefficient, are small-sized, undercapitalized, illiquid and banks at early stages of financial crisis may require bank restructuring (Demirguc-kunt and Huzinga, 2000; Hoeing and Moris, 2012) to improve their status to be able to report increased financial performance. The timing mismatch of assets and liabilities, bank ownership and bank insolvency are other aspects that might

influence the level and extent of bank restructuring (Stefan & Hoelscher, 2005). The need to increase banks branch network to improve service delivery and access many customers is essential to be in tandem with economic development and economic growth forces banks to undertake operational restructuring (Miller, 1996).

Restructuring banks by improving their ATM network normally enables access to customers particularly where it might not be viable to introduce branch networks (Mario, 2014). In the globalized era commercial banks are using agency banking as a more efficient and effective way of increasing their customer base (Ernst & Young, 2013). Suehiro (2002) observes that successful restructuring of the banking system is dependent not only on the implementation of institutional reforms initiated by the government in accordance with the global standards but also to the development of self-efforts undertaken by leading local commercial banks. The leading local commercial banks as well as foreign banks continue to dominate the banking sector in terms of total deposits and loans extended to customers and are the best candidates of bank restructuring so as to access a bigger customer base and therefore increase their profitability.

1.1.3 Financial Services

Financial services are the economic services provided by the financial industry, and include, a broad range of businesses that manage money, such as Credit Unions, commercial banks, credit-card companies, insurance companies, accountancy firms, consumer companies, stock brokerage firms, investment funds and certain government sponsored enterprises (Moore, 2003). This study restricts itself to financial services extended by commercial banks. Among the financial services extended by commercial banks include, loans and deposits, mobile banking, Electronic Funds Transfer (EFT), Net Settlement Instructions (NSI), mobile banking,

agency banking, internet banking, currency sorting centres, branchless banking, faceless banking, paperless banking and bancassurance (Cara et. al, 2000; Yoong, Parker & Hung, 2009). Where financial markets enable savers and investors to perform their financial intermediation function efficiently, and buyers and sellers are able to locate each other easily existence of banks as financial institutions would not be necessary. Banks would not therefore need to restructure to improve efficiency and to provide access of financial services to many clients (Barako, Ross & Brown, 2013).

The need to provide financial services to different types of clients explains the existence of financial intermediation role which focuses on the provision of financial services by financial institutions to the financial markets participants (Dupas & Robinson, 2009). The financial sector as the main intermediary between savers and borrowers on the one hand and investors on the other is an essential link in access to financial services (Das & Gosh, 2006). Commercial banks which are the main financial intermediaries are in the business of accepting deposits, extending loans to their customers, discovering new financial products, underwriting, and servicing of investments made using their own resources (Fried, Lovell & Eeckaut, 1993). Essentially they perform the role of agents for market participants who contract with them to obtain financial services with the main objective of increasing financial performance of banking institutions (Chang, *et. al.*, 2014).

Entrenchment of technology in the banking sector has enabled banks to embrace increased use of ATMs, the introduction of Point of sale (POS) terminals, the increased issuance of debit cards and credit cards and the introduction of internet banking. Additionally, mobile banking innovations following the expansion of electronic commerce over the years has had the main objective as that of improving efficiency in the banking sector and enhancing provision of financial services. Many

banks have had to restructure to improve efficiency through better processes to enhance coordination of banking activities. The expanded branch networks, the many installed Automated Teller Machine (ATMs) networks, mobile banking, agency banking, bank assurance and faceless banking calls for banks to continuously embrace bank innovations to be able to increase their volume of business (Chang *et. al.*, 2014).

Technological infrastructure has the effect of increasing a bank's assets and an increase in banks operations. Improved technology may call for banks to locate in different countries which make it possible for these banks to export their services in those countries (Chang *et. al.*, 2014; Dubel & Berlin, 2013; Sussman & Franks, 2002).

To enhance profitability, commercial banks need to earn high net interest income which means that interest rate on deposits has to be relatively low to avoid eroding high interest income (from loans) with high interest expense (paid to depositors). In developing countries foreign banks provide a wide range of financial services and have greater margins and profits than domestic banks. This is because foreign banks are guided by profit targets and efficiency levels determined by their foreign owners while local banks are majorly governed through local ideologies. Foreign large banks are also more modernized and are more efficient than their local counter parts (Kwaning, Churchill & Opuku, 2014).

Honohan and King (2009) finds that among the firm factors that determine access to financial services, efficiency and profitability are size, ownership and years in banking, access to financial services and size. A restructuring programme that calls for purchase of weak small banks by relatively large healthy banks introduction of mobile banking, having in place agency banking, expanding the ATM network, embracing branchless and faceless banking, use of Point of Sale (POS) terminals,

extensive use of debit cards and credit cards is essential for larger profitable and more efficient banks.

1.1.4 Firm Characteristics

Firm characteristics are aspects that uniquely distinguish organizations such as size, structure, ownership and the length of time they have been in business (Ferreira, Li & Serra, 2008). Firm characteristics are not identical between organisations and may be influenced by different aspects depending on products and services offered by these firms (Nor, *et. al.*, 2009). Mudambi and Nicosia (1998) contend that ownership of shares in a firm by management leads to conflicting interests on managerial behaviour, namely, encompassing the convergence of interest effect and the entrenchment effect. Bauwhede and Willekens (2008) identify the most common firm attributes as size and leverage because business organizations such as commercial banks need to have the requisite asset levels as well as the optimal level of debt. Eng and Mak (2003) identify growth opportunities, stock volatility, audit fee, equity, market liquidity and stock price performance as the main aspects that determine firm performance.

Espana (2015) and Al-Musali and Ismail (2012) argue that through overseas listing, banks that are consistently profitable are preferred by depositors and they tend to be well capitalized providing a safety net to borrowers, depositors, investors and the banking system. Enock, Garcia and Sundarajan (2001) argue that profitability is the main firm characteristic that is important for banks because profitable banks tend to be more efficient, tend to be more technologically advanced, promise their owners higher earnings per share (EPS) and tend to be going-concerns.

Njeru (2013) singles out profitability as the main characteristic that determine the going concern of banking and non-banking institutions while Jensen and Meckling

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(1976) identify ownership structure as the main firm characteristic that influence firm performance. In developing economies, firm characteristics such as foreign ownership are likely to be influenced by the level of development of the financial market industry because of the relationships that local firms hold to foreign agents (Ferreira *et. al.*, 2008)

The banking sector in many economies have expanded significantly from fully government owned and multinational banks to privately owned banks, to privatized banks as an aspect of financial sector reforms (Boateng *et. al.*, 2015). Banks are either partly government owned, privately owned, partly locally owned, foreign owned and some tend to be in the microfinance category after which they graduate to become commercial banks (Kunimune, 2003; Caprio & Klingbiel, 2003). Mergers and acquisitions give rise to bigger and more complex banking institutions which may expose the bank to higher levels of risk and higher profits (Caprio *et. al.*, 1998; Bonish & Monte-Negret, 1998).

Where only a few large banks dominate the banking system, this results to a market structure which is oligopolistic instead of being competitive. For regulation purposes, the Central Bank takes upon itself to protect specific banks from the rigors of market discipline, and the close involvement of the government in the determination of interest rates for loans and deposits which may mean that small banks are competed out and therefore end up being less profitable (Williams & Nguyen, 2005).

In developing countries, foreign businesses may be far more important than in western countries because of the institutional voids that underlie ineffective and inefficient local financial institutions in those countries. In these countries there are high transaction costs which are due to market uncertainties, an ineffective legal and judicial system, and injustices in the political and social environments.

The banking industry has continued to embrace changes in information technology geared towards improved customer service and cost reduction. The dynamic systems have led to faster and efficient processing by bulky transactions and other processes leading to reduced unit costs. The level of competitiveness has increased significantly among banks that have embraced bank restructuring especially in the areas of service delivery and product development including internet and telephone banking (Central Bank Annual Report, 2013).

Honohan & King (2009) investigated the relationship between firm factors, namely size (total assets and capitalization), profitability, ownership, years in banking and access to financial services. The authors further states that firm size, ownership and years in banking determine whether banks undertake financial, capital, asset or operational restructuring. Locally owned banks, privately owned banks and small banks generally tend to undertake capital restructuring to increase the capital base to meet the regulatory requirements or to increase the banks safety net (Honohan & King, 2009; Barako *et. al.*, 2013). Foreign owned banks on the other hand majorly embrace operational restructuring to increase their branch and ATM networks so as to provide financial services to more clients and tend to be more profitable. Large banks tend to be more capitalized, are more efficient and are more profitable. Government owned banks tend to rely more on parastatal deposits which are usually pegged to low-interest loans explaining why most government banks are less profitable (Al-Obaidan, 2008).

1.1.5 Commercial Banks in Kenya

The banking sector in Kenya is regulated by the Central Bank of Kenya and has continued to embrace changes in information technology geared towards improved customer service and cost reduction. The dynamic systems have led to faster and

efficient processing of bulky transactions and other processes leading to reduced unit costs. The level of competitiveness has increased significantly among banks especially in the areas of service delivery and product development including internet and telephone banking (Central Bank of Kenya, 2014).

Commercial banks in Kenya play an important role by providing a safe place for clients to keep their money by accepting deposits and extending loans to customers. They also offer foreign exchange services by selling foreign currencies to customers at the market value and also offer exchange of currencies to the customers (Berger & Humprey, 1997). Commercial banks in Kenya offer other services including investment services by selling their own shares or share of other companies to investors in addition to providing financial advice to their customer on the best business practices to engage in when asking for a loan to start businesses (Central Bank of Kenya, 2014). Commercial banks keep valuable items for customers and also offer customers advice on taxation by providing information useful when filling tax returns (Al-Musali & Ismail, 2012).

There has been increased use of ATM cards resulting from broadening of ATM network, including additional ATM machines and a wider network of merchants that accept payment through credit/debit cards. With implementation of KENSWITCH a shared ATM network comprising of a consortium of 18 small and medium sized banks was started in 2002 saw an increase in the number of ATMs. In July 2005, the Kenya Electronic Payments and Settlement System (KEPSS) and Kenya launched a Real Time Gross Settlement (RTGS) were launched by CBK this done to help in modernizing the payment systems in the Kenya to match the global trends. On the inside, banks continued to collaborate with the Basel Committee in promoting understanding among bank supervisors and banking institutions on new global

benchmarks for the assessment of capital adequacy and other supervisory benchmarks (CBK, 2007).

Commercial banks in Kenya have undertaken restructuring to mitigate against bank failure, as an aspect of financial sector reform, as part of the government divestiture programme, to improve performance, to be more competitive, to improve bank solvency and to increase the banking sector capacity for financial intermediation (CBK, 2014). Commercial banks are expected to be profitable and efficient as they play their role of mobilizing deposits from savers and channeling funds to borrowers for them to survive in the long run. To improve efficiency commercial banks have embraced modernized banking halls, broad ATM network, state of art technology, widespread branch network and agency banking (Das & Gosh, 2006).

The Kenyan bank sector has large, medium and small banks. The dominance of banking industry by a few large banks has continually been based on the asset size, deposit base, capital reserves, as well as business control, as shown by the analysis of the data on weighted market share, number of institutions, net assets, customer deposits and capital reserves (Central Bank of Kenya Annual Bank Supervision Report, 2016). Essentially, large banks constitutes only 6 banks or 14% of the banking sector but carry 48.75% of total assets, 49.56% of total bank deposits and 50.2% of the capital reserves of the banks an indication of the dominance of the few large banks (CBK, 2014). Therefore although the large banks are fewer, they have the largest market share the largest asset base, the largest deposit base and the largest capital reserves. This is followed by the medium size banks while the small banks have the smallest of the asset base, deposit base and capital reserves.

Commercial banks in Kenya are government owned, privately owned, foreign owned or owned by the private sector. Large banks tend to provide more financial services

than small banks and where only few large banks dominate the banking system, leading to an oligopolistic market structure and use of parastatal deposits to protect specific banks from the rigors of market discipline. Additionally, government tend to be involved in setting interest rates on loans and deposits which means that small banks are competed out as they become less profitable and more inefficient (Chang *et. al.*, 2014).

As at 31st December 2014, the sector that deals with banking activities comprised of the Central Bank of Kenya, as the regulatory authority, 44 commercial banks including 1 mortgage company (see appendix II), and 7 representative offices of foreign banks. Out of the 44 commercial banks, 30 banks were locally owned comprising of 3 banks with public shareholding and 27 privately owned banks while 14 banks were foreign owned (CBK, 2014).

1.2 Research Problem

Bank restructuring, financial services and firm characteristics are important concepts to commercial banks because of their role in the financial intermediation. Intervention through financial innovations, increasing the capital base to address the aspect of size and legal and regulatory framework review are important to ensure successful bank restructuring to record increased financial performance (Kwaning *et. al.,* 2014). The financial sector in many economies is the main intermediary between savers who are interested in safe-keeping of their deposits and earning of interest income and borrowers who obtain loans at market rates of interest to finance profitable activities (Suehiro, 2002). The sector is an important link between firm specific factors, such as size (total assets and capitalization), profitability, ownership, years in banking and access to financial services. Barako *et. al.*, (2013) states that larger banks tend to have proportionately more branches both in the urban and in the rural areas than small

banks implying that access to financial services can best be championed by larger banks.

In Kenya, commercial banks are increasingly offering new services such as mobile banking, agency banking, bank-assurance, faceless banking and integrating microfinance in their banking system (CBK, 2014). Firm specific factors such as size and capitalization have been known to have an effect on the ability of commercial banks to provide financial services in Kenya (Barako *et. al.*, 2013). Well-capitalized banks provide a safety net for depositors, owners and even borrowers making them more preferable than their under-capitalized counterparts. Commercial banks in Kenya have undertaken restructuring to be more competitive, to improve bank solvency, to increase the banking sector capacity for financial intermediation and to improve performance. Although some commercial banks restructure as part of survival strategy, the CBK may require all banks experiencing a crises to restructure to reduce costs with the objective of increasing financial performance (CBK, 2014). The mergers and acquisitions of the mid 1980's and late 1990's gave rise to bigger and more complex banking institutions which was aimed at improving profitability of the merged banks (Ithiri, 2013). To improve efficiency commercial banks have embraced modernized banking halls, broad ATM network, state of art technology, widespread branch network and agency banking (Das & Gosh, 2006).

Dubel and Berlin (2013) researched on capital structure and practice of bank restructuring and found out that timing of bank restructuring is important. Beck, Demirguc-kunt and Peria (2007) investigated barriers to access to bank services and concludes that bank size and bank infrastructure are the most robust predictors of barriers. Barako *et. al.* (2013) investigated barriers to access of bank information and alludes that firm characteristics is strongly and positively associated with access to

financial services. Honohan and King (2009) investigated the relationship between firm factors and access to financial services and their regression results indicate that size is the most significant determinant of access to financial services. Beck *et. al.* (2007) researched on access to and use of banking services across selected countries and finds that large banks are better in providing a wider range of services because of their wider branch network.

Espana (2015) researched on public financial assistance in the restructuring of Spanish banking sector emphasizing that government should take an active role in bank restructuring. Ithiri (2013) studied corporate restructuring and its effects on Kenya Commercial Bank performance and found out that the main drivers for restructuring were competition, company strategy, budgetary cuts, public pressure and change in government policy. Osoro (2014) undertook a study on the effect of financial restructuring on the financial performance of commercial banks in Kenya and found out that there exists an insignificant positive relationship. The studies above provide input to conceptual and methodological aspects to be used in this study, therefore emphasizing their relevance in this study.

Financial crisis has been a common phenomenon in the Kenya banking sector. Banks have occassionary been put under statutory management by the Central Bank of Kenya. Banks such as Imperial Bank and Daima Bank were liquidated while others such as Kenya Commercial Bank had to be bailed out by the Government through additional capital injection. Sometimes the Central Bank of Kenya has spear headed the bank restructuring process to avert a banking crises, to caution banks against closure and to improve bank financial performance.

From the reviewed literature, the studies reveal conflicting results on the effect of bank restructuring on bank financial performance. The effect of the four types of bank

restructuring on bank financial performance had not been researched on in Kenya and that necessitated the need for this study. No studies have been identified incorporating the intervening and moderating effect on bank restructuring and financial performance in Kenya. The effect of bank characteristics on the relationship between bank restructuring and financial performance has not been researched on in Kenya. The effect of financial services on bank restructuring and the effect of financial services on the relationship between bank restructuring and financial performance needed to be researched on. Whether firm characteristics and financial services jointly affect the relationship between bank restructuring and financial performance of commercial banks in Kenya is essential. Most of the studies summarised above were carried out in developed countries making it necessary to undertake a study in Kenya which is in a different environment. The Baron and Kenny (1986) methodology for testing intervention in studies of bank restructuring has not been done in Kenya and therefore the need for this study.

The proposition of this study was addressing the research question that follows: How are bank restructuring, financial services, bank characteristics related to financial performance of commercial banks in Kenya?

1.3 Research Objectives

1.3.1 General Objective

To investigate the relationships among bank restructuring, financial services, bank characteristics and financial performance of commercial banks in Kenya.

1.3.2 Specific Objectives

i. To establish the effect of bank restructuring on financial performance of commercial banks in Kenya.

ii. To determine the influence of firm characteristics on the relationship between bank restructuring and financial performance of commercial banks in Kenya.

iii. To establish the influence of financial services on the relationship between bank restructuring and financial performance of commercial banks in Kenya.

iv. To establish the joint effect of bank restructuring, financial services and firm characteristics on financial performance of commercial banks in Kenya.

1.4 Value of the Study

The findings of the study contribute to the existing body of knowledge on bank restructuring and financial performance including the effect of financial services and bank characteristics on the study variables. The research output can be used as a source of invaluable literature among the study variables on theories and policies that inform them. The findings of this research enhance the theoretical foundation on the agency theory which focuses on the stewardship function of banks, financial intermediation theory that deals with enhancement and improvement in the financial intermediation function and institutional theory focuses on how financial institutions can undertake the process of bank restructuring to enhance institutional capacity.

The study methodology on stepwise regression is useful to researchers who might be keen on analyzing complex relationships between the dependent and many independent variables. This study makes contribution to managerial practice on bank restructuring, services offered by commercial banks, bank characteristics and aligning banks to these aspects and managerial practices. Essentially all managerial practice should get to above average and lead to establishment of a proper link between bank restructuring, financial services and firm characteristics to ensure better performance.

The findings of this study are essential to the Central Bank of Kenya since it is the regulatory agency and it involved in formulation of banking regulations including those related to bank restructuring as well as determining when a country should consider restructuring banks experiencing banking crisis, having capital levels which are below the statutory requirement or banks consistently reporting low profitability. Another policy option is to introduce agency banking in all financial institutions and to increase the number of licensed deposit taking microfinance institutions. The study has policy implications in terms of explaining firm factors that determine financial institutions intermediation role through establishment of bank branches.

The findings of the study also add to the existing policy tools that may guide on bank restructuring and improve on the financial services offered by commercial banks in terms of variety and their ability to contribute to the profits of commercial banks. Currently, there are no policy guidelines on bank restructuring in Kenya. The study findings provide input to policy on when bank restructuring is necessary or when alternative intervention to improve financial performance is necessary in the recognition of the fact that bank restructuring is not the solution to all the problems that exist in the banking sector.

Furthermore, the study findings have contributed to the available literature by through its empirical tests on the linkage among bank restructuring, financial services, firm characteristics and financial performance. It therefore provides an avenue for further research on the variables in Kenya and other countries.

1.5 Organization of the Thesis

The thesis is divided into six chapters: introduction; literature review; research methodology; descriptive data analysis and results; hypotheses testing and discussion of the findings; and finally summary, conclusions and recommendations. Chapter one

introduces the four concepts of the study: bank restructuring, financial services, firm characteristics and financial performance. A contextual discussion of commercial banks in Kenya is then outlined which leads to the research problem, research questions and research objectives. The chapter concludes with a discussion on the value of the study and justification for the research.

Chapter two summarizes the main theories on which the study is based on. The theories are; Financial intermediation theory (Merton, 1995), Agency theory (Jensen & Meckling, 1976) and Institutional theory (Scott, 2004). A discussion on the empirical literature, summary of empirical studies and research gaps identified is then provided. A conceptual framework and conceptual hypotheses that were tested are presented at the end of the chapter.

Chapter three presents the research methodology used in the study including research philosophy, research design, population, data collection, operationalization of the variables, and measurement of the variables and data analysis. Chapter four summarizes the results of descriptive statistics which are; minimum, maximum, mean, standard deviation, skewness and kurtosis.

Chapter five presents hypotheses testing. The tests and results of the four hypotheses as well as a discussion of the research findings is presented. The hypotheses test the direct relationship between bank restructuring and financial performance, the moderating effect of size and ownership on the relationship between bank restructuring and financial performance, the intervening effect of deposits and customer loans (and the composite variable financial services) on the relationship between bank restructuring and financial performance and the joint effect of bank characteristics and financial services on the relationship between bank restructuring and financial performance.

Chapter six presents summary of the findings, conclusions, contribution to knowledge, contribution to policy and practice, contribution to theory, limitations of the study and suggestion for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The theoretical review in this chapter discusses the theories of financial intermediation, agency theory and institutional theory. The empirical review summarises theoretical aspects on bank restructuring and financial performance; bank restructuring, firm characteristics and financial performance; bank restructuring, financial services and financial performance; and bank restructuring, financial services, firm characteristics and financial performance. The conceptual framework establishes the moderating and the intervening effects on the dependent and the independent variables. The hypotheses are stated at the end of the chapter.

2.2 Theoretical Review

The theories summarized in this section are, the theory of financial intermediation, the agency theory and the institutional theory.

2.2.1 Theory of Financial Intermediation

The theory by Merton (1995) states that financial resources are transferred from those with surplus to those with deficits through financial institutions. Financial intermediation is the transfer of funds from economic entities with surplus amounts to those in need of funds. The theory of financial intermediation calls for the existence of financial intermediaries which rely on the existence of asymmetric information, incurrence of transaction costs, huge monitoring costs and existence of financial sector regulation. The theory emphasizes on the importance of allocation of resources and is based on perfect and complete markets. The theory further suggests that the market has frictions such as transaction costs and information asymmetry that are

important in understanding and appreciating financial intermediation. The information asymmetries lead to market imperfections and many of these imperfections lead to specific forms of transaction and monitoring costs (Merton, 1995).

Through screening, financial institutions enable reduction of adverse selection. By putting in place debtor monitoring mechanisms they reduce moral hazard in financial markets. The theory further contends that asymmetric information between economic units with excess and those with deficits cause imperfections in the financial market. The second dimension of the theory focuses on costs of effecting transactions. By exploiting economies of scale financial institutions tend to reduce transaction costs that are incurred when economic units transact directly with each another. The dimension of the theory focusing on financial sector regulation contends that the method of regulation that exists to control savings and investments in the economy is important. Regulation may for example require financial institutions to keep levels of liquidity constant in order to exceed recommended thresholds and prescribe specific ratios of deposit to capital (Andries & Cuza, 2009).

Principally, this theory advocates that where financial institutions exists and regulation on provision of information makes it easier for financial market participants to access financial markets information transactions are effected on a clear, effective and efficient manner. This also means that lower costs will be incurred in dealing with adverse selection and moral hazard reducing the danger of nonperforming loans and therefore increasing financial performance. The costs of effecting transactions has implication to size increment, technology enhancement as well as increment competency of management have likelihood of leading to more financial services offered at lower cost (Merton, 1995).

Andries and Cuza (2009) criticized the theory by contending that a large number of institutions that have issued a variety of different types of securities are necessary for the theory to hold. The existence of continuous time techniques for option pricing models such as the Black and Scholes model and the extension of the general equilibrium theory of economists for determining prices and interest rates tend to negate this criticism. Dynamic trading of financial assets in technologically advanced financial markets allows these markets to effectively compete even where a limited number of financial securities and financial institutions exist. Essentially it is difficult for financial markets to have sufficient financial securities and sufficient financial institutions since technological and process innovations continuous to be embraced in the broader financial and business environment.

Banks undertake restructuring to improve their capacity for financial intermediation. By undertaking operational restructuring through improved processes, entrenching technology such as mobile and internet banking, and embracing financial innovation among others enables banks to enhance their role of financial intermediation. This theory provided a basis of restructuring banks to bring more savers and borrowers together in financial institutions that are more efficient and are able to offer financial services to many bank clients. Undertaking operational restructuring is therefore essential for efficient financial intermediation (Chang, *et. al.,* 2014)

2. 2.2 Agency Theory

As described by Jensen and Meckling (1976), agency theory deals with existence of the relationship between business owner(s) (the principals) and manager(s) (the agents) to act on behalf of the principal. These actions may sometimes include delegating some of the decisions to be made by the agent. Agency costs refer to all costs commonly known as contracting costs, transaction costs, moral hazard costs and

information costs and are incurred to be able to undertake agency related transactions. The executive directors make available valuable information about the activities of a firm while non-executive directors are usually expected to contribute both expertise and objectivity in monitoring managerial decisions all of which constitute agency costs (Freeman, Wicks & Parmar, 2004). Consequently, firms with more concentrated ownership structure are likely to influence the nature and extent of bank restructuring and are also expected to exhibit better performance due to a stronger link between interests of owners and managers (Jensen & Smith, 2000).

Managers of financial institutions are agents who are charged with the responsibility of ensuring that the institutions are solvent, profitable and efficient. Bank restructuring as an aspect of financial sector reforms is undertaken by financial managers. Managers make decisions on the type of bank restructuring to be undertaken by their commercial banks, they also make decisions as to when to restructure commercial banks and the central bank as the main restructuring agency gives directives as to when the restructuring should be done by individual banks or the restructuring should be undertaken by the banking system (Mario, 2014; International Monetary Fund, 2013).

Managers of large banks and foreign banks tend to be paid better than those of local, private, medium and small banks. As agents of the owners foreign banks tend to hire more qualified, motivated and competent managers who are able to make value adding decisions for their firms. The foreign banks essentially become more profitable than the local private banks which are relatively smaller in size. The main criticism of the theory is that, agency costs have to be incurred impose checks and balances to ensure that managers do not maximize perquisites at the expense of the interest of the owners (Boateng, *et. al*, 2015; Bonin, *et. al*, 2004).

Bank restructuring is undertaken by managers who are agents of the owners. Prudent management of costs incurred during the restructuring process is important if profitability by banks has to be optimized. Managers sometimes as agents of shareholders influence the appointment of board of directors. Quality managers and inclusion of executive and non-executive directors is import for banking institutions to facilitate bank restructuring that not only leads to improved profitability but banks that are efficient and are able to provide a wide range of financial services. Agency costs incurred to oversee the activities of management should be controlled for shareholders to maximize their Earnings per Share (EPS), in the case of institutions that are subjected to the discipline of the capital market, and maximize returns when profits earned by companies are distributed to the owners. Financial performance of restructured firms is therefore important to enable shareholders maximize their return on investment (De Young & Rice, 2003).

2.2.3 Institutional Theory

The Institutional theory by Scott (2004) contends that institutions are social structures with norms and expectations which have had to attain a high degree of resilience. Institutions have a wide scope of operations (Lounsbury, 2008). Institutional theory looks into the deeper aspects of the social structure and takes into account the processes by which structures, including schemes, rules, norms, and routines, become established as authoritative guidelines for social behavior in organisations (Scott, 2009). Banks restructure to remain competitive and provide services to many clients. Through restructuring organizations are able to change their form and structure so that they can be more efficient.

Scott (2004) is of the view that in order to survive in a competitive environment, organisations must conform to the rules and belief systems that exist in the business

environment, because isomorphic institutions, both as a result of structure or procedures including the goods and services offered by the firm tend to earn the organisation legitimacy. Organizational activities and competitiveness is partly dependent on the culture and norms of the industry in which the institution belong. Knetter (1989) observe that firms in different economies tend to react differently to similar challenges (social, economic, and political factors) constitute an institutional structure of an environment that provides firms with benefits for engaging in specific types of activities. Firms in the banking sector are expected to adhere to prudential regulations formulated by the Central Bank to ensure that they adhere to the requirements of the banking act and the Central Bank act includes defining the loan limit that a single borrower can borrow from a financial institution as well as the minimum capital requirements of the banking sector institutions. Defining the maximum deposit levels from a single institution or individual is important for ensuring that deposit levels are not too much concentrated on one financial institution.

The restructuring approach to use in financial institutions is dependent on the level of deposits that the institution want to mobilize as well as the volume of loans that these institutions want to extend to their customers through restructured financial institutions such as an expanded branch and ATM networks. The theory overlooks the fact that large shareholders are interested in maximizing earnings per share (EPS) and have no interest on the organization norms, rules or beliefs of the organization. Large depositors and big borrowers are important in determining the profitable levels of the financial institutions in which they deposit or borrow irrespective of the norms, rules or beliefs of the banking institutions because as far as the depositors are concerned, all they want is to receive their deposits on demand or in the case of time deposits, when these deposits are due.

This study is anchored in the institutional theory that recognizes that institutions are structured to enable them meet their long-term objectives and attain long-term profitability. Bank restructuring recognizes the importance of the bank functional areas and their contribution to bank financial performance. Finances are required for the restructuring process which might call for borrowing if the bank does not have sufficient funds. Capital injection by the owners might be required if the bank is undercapitalized. Efficiency of operations might need to be enhanced while increasing size and ownership might need to be addressed as part of the restructuring process. Banks are restructured in such a way that they able to determine the types of financial services, such as deposits and customer loans, that they are expected to offer. Therefore, the four types of bank restructuring, financial serves and firm characteristics are variables that are based on the institutional theory. Financial performance is a function of structures of organizations. Well-structured banks are therefore expected to report better financial performance (Al-Obaidan, 2008; Barako, *et. al*, 2013; Boateng, *et. al*, 2015)

2.3 Empirical Review

Studies in this section focus on bank restructuring, bank characteristics, services offered by commercial banks and financial performance.

2.3.1 Bank Restructuring and Financial Performance

Commercial banks restructure so as to improve their financial performance or to increase the scope of financial services they offer to their clients with the objective of enhancing their competitiveness. Dziobek and Pazarbasioglu (1998) described the experiences of 24 countries that were involved in reforms in the 1980's and early 1990's. Four of the study countries were industrialized, 15 were developing countries, and 5 countries were in transition to market oriented systems. The concepts of

solvency and sustainable profitability were considered as indicators of performance. Bank profitability was measured using; operating expenses/assets, interest income/assets and profits to assets. The authors observe that countries that made substantial progress addressed problem areas within a year of their banking problems. Because study countries circumstances change there is need to carry out similar or different studies in the same countries after a certain period or to carry out similar studies in different countries because environments of different countries tend to be diverse.

Rose (1994) examined the financial and operational restructuring of nearly 730 U.S. insured commercial banks that went through financial crisis in the form of negative profitability for at least two consecutive years during the period 1980 to 1990. The objective of the study was to establish the effect of bank restructuring on financial performance of commercial banks. The measures of financial performance were bank profitability and bank efficiency while the measures of bank restructuring were operational, financial and asset quality. Financial ratios used in the study were return on assets (ROA), return on equity (ROE), net interest margin (NIM) and the spread. The measure of operational restructuring was the income/cost ratio and the total operating costs to total assets. Financial restructuring was measured using long-term debt to total assets while asset quality was measured using non-performing loans to total loans and loan provisions to total loans. Regression results showed that the banks restructured reported positive and consistent increase in net profitability in the last half of the decade. The study did not however distinguish which among the types of bank restructuring undertaken contributed more to profits and whether the contribution of the variables to bank profits was significant therefore necessitating the current study.

Osoro (2014) carried out a study on the effect of restructuring financial systems on the financial performance of commercial banks in Kenya. The study focused on 11 commercial banks quoted at the Nairobi Securities Exchange (NSE) and were in business for the period 2008 to 2013. Debt ratio, dividend payout and equity ratio were used as measures of financial restructuring. The study relied on multiple linear regression to analyze the data. The findings were that there exists a positive effect of financial restructuring on the financial performance of commercial banks in Kenya. The effect was however not significant as it explained only 26.7% of the financial performance. The study by Rose (1994) was done in a different environment, included more variables and had a better critique than the study by Osoro (2014). The current study borrowed the measurement of variables used by Rose (1994) and the environment studied by Osoro (2014).

 Ithiri (2013) studied corporate restructuring and its effects on Kenya Commercial Bank performance. A descriptive survey was used and data was collected from 100 randomly selected sample respondents using a questionnaire. Descriptive statistics was used to analyze the data. The findings of the research were that the main drivers for restructuring were competition, new company strategy, budgetary cuts, public pressure and change in government policy. In addition to descriptive statistic, this study uses multiple regression analysis as well as stepwise regression making it more superior than the study by Ithiri (2013).

2.3.2 Bank Restructuring, Firm Characteristics and Financial Performance

Demirguc-Kunt & Huizinga (1999) collected and analysed bank data for 80 countries for the period 1988-1995 and showed that differences in interest margins and bank profitability reflect the determinants of bank characteristics, macroeconomic conditions, explicit and implicit bank taxes, regulation of deposit insurance, general

financial structure, and several underlying legal and institutional indicators. The authors also found out that in countries that are developing, banks that have a foreign orientation have greater margins and profits than banks that are local. It is however important to find out how long the positive profits are sustained before a bank needs to be taken through another restructuring process.

Kwaning *et. al.* (2014) uses a study of cases to explore the motivators of restructuring banks and the effects of bank restructuring on financial performance of one of Ghana's largest bank, Agricultural Development Bank (ADB). The findings of the study of ADB as an institution on restructuring shows that the factors that motivated ADB's restructuring were changes in the business environment, weak governance, poor strategic control, and poor performance. The impacts on the ADB's corporate governance, organizational structure and strategic control, performance, and employee costs lead to improved governance, a modified organizational structure, increased employee costs and a decrease in ADB's profitability. The study by Demirguc-Kunt & Huizinga (1999) was cross country study while the study by Kwaning et. al (2014) was the case of Ghana's ADB. The current study uses panel data from the Kenya banking sector.

De Young & Rice (2003) establish a number of research links between noninterest income of banks, business strategies, market conditions, technological change, and financial performance of banks for the period 1989 and 2001. Diversification into non-interest activities enabled the financial institution to increase its profitability. The results indicate that banks that are managed properly expand more slowly into noninterest activities to diversify their profits, and that increases in noninterest income marginally is associated with poorer risk-return tradeoffs on average. These findings suggest that the co-existence of noninterest income does not replace interest income

from the intermediation activities that remain the core financial services function of banks.

Nor, *et. al.* (2008) used event-study method to examine whether corporate restructuring announcements made by selected firms on their stock prices in Malaysia has any effect on bank activities. The effect of the restructuring announcements made by companies on stock prices was found to be significant while the average two years of return on total assets and return on operating cash flow in the post restructuring period were mixed. The firms also showed some changes in firm specific characteristics in terms of financial leverage measured using debt ratio and revealed changes in firms' activities.

According to Nor, *et. al.* (2008) corporate restructuring was not found to be justifiable in the case of all firms since there was no consistency in post restructuring outcomes in terms of the argument that corporate restructuring should be more focused, should lead to improved corporate governance through insider ownership, lead to better debt management ratio and an increase in profitability. The resulting organizations ended up being less focused, had weak corporate governance, reported poor management debt ratios and a decrease in financial performance. The implication of these findings is that corporate restructuring framework in Malaysia does not really focus on strengthening the role of the board of directors through board of directors' control and ownership, emphasizing on the corporate refocusing and debt reduction in the post restructuring period. Banks sometimes have to incur long-term debt to finance activities associated with bank restructuring. Financing bank restructuring with debt usually leads to a decrease in profits because of increased costs of interest expense on the debt.

The study by De Young and Rice (2003) focused on interest incomes as an aspect for diversifying incomes and therefore used nonmarket data while the study by Nor, *et. al.* (2008) was an event study and therefore used market data. The findings by De Young and Rice (2003) recognized the importance of non-interest incomes in complementing interest incomes while the study by Nor, *et. al.* (2008) emphasized on the importance of restructuring announcements on stock prices.

2.3.3 Bank Restructuring, Financial Services and Financial Performance

Beck, Demirguc-Kunt and Peria (2007) investigated the barriers to accessing banks financial services using data from 193 institutions which carried out banking business activities in 58 countries. The study used primary data and indicators of access to banks used were deposit, credit and payments. The revelation was that the size of the bank and the physical infrastructure are predictors of barriers in a robust manner. Good infrastructure such as expanded branch network, installation of ATM network, opening of subsidiaries, use of internet banking, agency banking, and embracing ICT in processing financial transactions within the banking institution as well as across banking institutions are important infrastructural facilities that are necessary to fast track quite provision of financial services to banking sector clients. Bank restructuring is therefore essential to enable access of financial services by clients of banks.

Bonin, Hasan and Wachtel (2004) investigated whether the privatization programmes of banks in transition economies have an effect on financial performance of these banks. By taking the largest banks in six advanced countries, namely, Bulgaria, the Czech Republic, Croatia, Hungary, Poland and Romania the findings were that income and balance sheet characteristics were comparable across four bank ownership types which were foreign ownership, local ownership, private ownership and government ownership. Efficiency measures which were computed from

stochastic frontiers and were used in ownership and privatization regressions had dummy variables according to bank type. The empirical results support the hypotheses that foreign-owned banks are most efficient and more profitable and government-owned banks are least efficient and less profitable.

The study by Beck, Demirguc-Kunt and Peria (2007) focuses on financial services and used primary data and in addition emphasizes on the importance of good technological infrastructure in restructuring banks to be able to provide better financial services. The study by Bonin, Hassan and Wachtel (2004) used large banks of different ownership types to contrast the efficiency of banks and finds that foreign owned banks are more efficient. The two studies are different in that they both focused on the effect of the studied variables on bank profitability.

In investigating the restructuring and re-engineering of local commercial banks in Thailand, Suehiro (2002) undertook a study on bank restructuring with the objective of improving the asset quality and financial performance of the banking sector. The main focus was that of improving the non-performing loan (NPLs) ratio. The findings were that NPLs decreased from 42.9% in 1998, to 10.5% in 2001.These findings indicate that restructuring NPLs improves the quality of bank assets This is because the government of Thailand incorporated the Thai-Assets Management Corporation (TAMC) to figure out the problem of large-scale NPLs per unit held by local private commercial banks and large amounts of NPLs held by government controlled banks. Several commercial banks reported quick improved corporate financial performance with regard to not only NPL ratios but also net profit margins. The authors needed to have documented whether other types of restructuring had been done in that country and whether there was any effect on bank financial performance following use of other restructuring methods other that NPLs. This however contradicts the study by

Dziobek and Pzabasioglu (1998) which contends that restructuring banks with a big volume of non-performing loans leads to low profits because of provisioning which ends up being a huge cost in the income statement therefore reducing the profitability of restructured banks.

Ivashina and Scharfstein (2008) of the Havard Business School carried out a research study on lending by banks during the financial crisis of 2008 and found out that new loans to large borrowers decreased by 37% during the period when the financial crisis was at its peak (September-November 2008) relative to the three-month period before which lead to a decrease in profitability during the period. The credit levels of banks decreased by 68% in 2008 relative to the highest level of the credit boom (March-May 2007). The implication is that when lending to large and significant borrowers decrease the level of credit in banks decrease leading to a decrease in profitability. The situation becomes worse when the amounts of new loans extended to large borrowers ends up being non-performing as profits decreases even further as a result of loan loss provisioning. Good lending for real investment (such as capital expenditures) decreased to the same amount level as new lending for restructuring (share repurchases).

The authors (Ivashina and Scharfstein, 2008) argue that banks that are able to reach deposit financing reduced their lending with lesser amount than banks with less access to deposit financing. This is an indication that access to deposits enables banks to lend more meaning that there is a positive relationship between bank deposits and bank lending. Reduced lending may also have been curtailed could have been because of large overhang of revolving credit facilities. Additionally, there was documentation of increased fluctuations of revolving credit that dealt with their ability to access funding. Although banks were helpful to the borrowers, the borrowers may limit the

ability of banks to extend additional other loans if they do not pay their loans or if they default on their loans. Banks with many lines of revolving credit outstanding in relation to deposits decreased the amount of lending more than those with less revolving line exposure and by extension reduced profitability of the studied banks.

2.3.4 Bank Restructuring, Financial Services, Firm Characteristics and Financial Performance

Honohan and King (2009) investigated the effect of firm factors identified as size (total assets and capitalisation), profitability, ownership, years in banking and access to financial services by large business firms. Whether banks were able to provide financial services to the firms was measured as a proportion of branches of banks located outside the major urban towns. Years in banking business is dependent on the number of years from the time the business as a bank was first licensed, ownership was categorised as either local or foreign, profitability was measured as bank's profit after tax and after adjusting for extraordinary items while size was measured using the total assets of the firm.

 Regression results indicated that size as the main determinant of access to financial services was the most significant. This study did not investigate the contribution made by multinational banks in access to financial services both at the local and the international level. The study states that large companies are able to access financial services from multinational and local banks, and privately owned as well as government owned banks. Borrowers prefer accessing finance from more profitable banks, from large banks and banks that are well-capitalized since they offer better credit terms, they tend to be more efficient and are more technologically advanced than their smaller and less-capitalized counterparts. Banks that have a bigger branch

network, more ATMs, agency banking; are large and foreign owned tend to offer more financial services and are more profitable.

Barako, *et. al.* (2013) undertook a study of specific factors of a firm and the way commercial banks in Kenyan provide financial services. Branch networks took the place of access to financial services while firm factors, namely, years in business, profitability, ownership and size were the independent variables. The findings were that firms' specific factors used which were identified as total assets and capitalisation are strongly and positively associated with access to financial services. The authors contend that large banks that have been in business for a longer period of time, banks that are foreign owned well capitalized banks and profitable banks are able to provide a variety of financial services and embrace financial innovations. These banks also tend to have diverse branch and ATM networks and tend to report more profits. Bank characteristics are therefore important in influencing the ability of banks to provide financial services to their clients. The study did not however relate the ability to access to financial services to the amount of deposits and the size of customer loans. But essentially banks that provide a wide range of financial services tend to have more branches and a wide ATM network. These banks mobilize more deposits, extend more loans to their customers and are more profitable especially where the overhead costs are properly managed.

The study by Honon and King (2009) used regression analysis to determine the influence of firm characteristics in the provision of financial services by banks and identifies size as the most important factor in determining access to financial services. Barako, *et. al.* (2013) on the other hand studied firm specific factors identified as total assets and capitalization are positively associated with access to financial services.

Both studies therefore were interested on using firm characteristics in influencing access to financial services

Al-Obaidan (2008) observe that Government owned banks tend to be less profitable since they rely more on Government subsidies and having that comfort that should the banks experience a crisis, there will be additional capital injection by government leaving the banks with no or little room to fail. The level of expansion of such banks is dependent on the need for Government and Government institutions to access financial services from the Government owned banks. An economy that has few public banks relies majorly on private capital focusing more on ensuring that services are accessed by the majority of the citizens and that such banks are more profitable to be able to rely on injection of private capital in event of a short-fall in capital levels.

Gianetti and Ongena (2009) studied the impact of positive growth effects of financial integration on small and young firms. The authors relied on a panel data of 60,000 annual observations of firms listed and non-listed in Eastern European economies to establish the effect of differences of foreign bank lending on growth and financing of firms. Foreign lending was found to enhance the size of firms in terms of growth in firm sales, assets owned, and use of leverage. The effect of foreign lending however impacted negatively on the size of small firms as the firms experienced a decrease in sales level, assets and financial debt. Therefore, young firms tend to benefit more from foreign bank presence majorly because of financial and non-financial support to enable them build capacity while businesses connected to domestic banks or to the government suffer because of limited domestic and Government financial support. Overall, research output suggests that foreign banks do give assistance in mitigation to cub connected-lending problems and improvement in capital allocation.

Yildirim (2013) looks at various firm characteristics that affect provision of credit by banks using a sample of 970 SMEs that carried out business across nine provinces of Mediterranean and South East Anatolia regions in Turkey. The results suggest that size of assets, volume and stability of sales, export rate, and legal form are important determinants of bank products and services that provide satisfaction. These results are consistent with the hypothesis that larger firms with huge and stable sales revenues are more likely to lead to better access to financial services and therefore receive more benefits from credit services extended to their local banks. On the part of the banks that were providing financial services the findings were that small firms such as SMEs access credit from smaller banks while the large firms tend to access finance from large, well-capitalized and profitable banks.

2.4 Summary of Literature Review

Researches in many countries reveal that countries that were more successful in taking dealing with solvency problems as opposed to the aspects of profitability were more profitable (IMF, 2013). Whereas bank solvency emanates majorly from shorter term financial restructuring, a return to profitability requires more difficult, longer term operational restructuring. Dziobek and Pazarbarsioglu (1998) observe that in practice, the design of bank restructuring programmes is often somewhat unbalanced, focusing more on financial restructuring measures instead of operational restructuring measures. The moderating variables tend to affect the financial performance of banks. Demirguc-Kunt and Huizinga (1999) finds that bank characteristics such as ownership size, capital levels determine the type of bank restructuring and profits of banks.

Foreign owned banks are normally large and are usually ahead in terms of banking innovations and they are more profitable (Nor *et. al.*,2008). Locally owned government banks incur high operating costs, expand to reach many government

entities which are their major clients therefore having a wide branch network and are usually less profitable. The moderating and intervening variables which are ownership and size of the banks theoretically indicate that foreign owned banks, large banks, banks that have been in business for a long period of time tend to be more stable, more profitable and tend to provide a wider range of financial services than the local, small and medium, and younger counterparts (Barako, *et.al*, 2013).

Table 2.1 summarises studies relevant to the research in terms of the focus of the study, a brief on the methodology used to do the research, the findings of the studies, the research gaps and how this research is expected to address the research gap arising from the reviewed studies.

Table 2.1: Summary of Relevant Studies

Author (Year)	Focus of Study and Study Methodology	Findings	Research Gap	How Proposed Study will Address Gap
Bonish and Montes-Neglect (1998)	Restructuring distressed banks in transitional economies using cross country data	Countries that have been most successful at restructuring their banking sector resolved to eliminate banks that were not viable, either through merger or direct liquidation or merging them or injecting fresh capital. In success cases, no bank was considered too big to fail	Studies on bank mergers, on bank liquidation, and identification of banks that should be placed under statutory management and those which should continue operating as an aspect of enhancing financial intermediation is essential in Kenya. A banking survey to determine the status of commercial banks in Kenya in terms of profitability and other important aspects such as efficiency is essential.	Types of bank restructured and their effect on profitability over a period of time are documented by this study.
Dziobek and Pazarbasioglu (1998)	Bank restructuring as an aspect of financial sector reforms and used solvency and profitability as measures of bank restructuring	Countries that effectively diagnosed the nature and extent of their problems, identified the underlying causes and designed a restructuring strategy to address them all systematically made substantial progress took action within a year of their banking problems	The sequencing of restructuring and its effect on profitability was not done thus the need for this study. Whether banks with characteristics such as size, type of ownership, capital levels undertake particular type(s) of bank restructuring was not addressed thus the need for this study.	This study finds out whether banks with different characteristics use different types of bank restructuring and whether others restructure in adherence to the requirements by the banking system regulator or whether restructuring is done at Random
Waxman (1998)	A legal Framework for Systemic Bank Restructuring by analysing the effect on profits if	Government strategies in a pre/non crisis scenario and systemic bank restructuring was analyzed	The appropriate type of bank restructuring for intervening in pre and post crisis scenario and their effect on bank performance need to	Interventions of pre and post crisis banks contend that it is necessary to restructure individual banks as well as the

	restructuring is done before a banking crisis versus when banks restructure after a crisis		be established in Kenya.	entire banking system. The current study brings out the intervention of financial services on bank restructuring and bank financial performance.
Suehiro (2002)	Restructuring and re-engineering of local commercial banks in Thailand aimed at improvement of the banking sector including solution to the non-performing loans (NPLs) problem by putting in place an asset management company after which financial ratios were used to measure the performance of the banks	NPLs decreased significantly by 75.5% between 1998 and 2001.This was a result of government of Thailand incorporating the Thai-Asset Management Corporation (TAMC) to solve both a large scale NPLs per unit held by local private commercial banks and huge amount of NPLs held by government controlled banks. Several commercial banks reported quick improved corporate performance in terms of NPL ratios and a decrease in net profit margins because of loan loss provisioning.	The Central Bank as a policy maker need to commission a study to find out whether an a company for managing NPLs of commercial banks need to be formed where commercial banks can channel all their NPLs instead of put in place their individual systems for handling their NPLs.	This study analyses one of the aspects of bank restructuring as asset restructuring which focuses on asset quality as measured by the NPLs level. The study establishes whether the coefficient is significant to determine whether restructuring NPLs leads to an increase in financial performance.
Hoggarth et.al (2004)	On the Resolution of banking Crises: Theory and Evidence. The study analysed the effects of types of bank restructuring in solving banking crisis	Bank restructuring has usually occurred through mergers, government capital injection, bank liquidation, change in ownership or selling off the bank to another bank	Implications of these restructuring measures on profitability has not been done which is addressed by this study. Studies done in other countries do not yield consistent results.	The study establishes the effect of different types of bank restructuring on financial performance
Beck, Demirguc-kunt and Peria	Investigated barriers to access to bank information from 193 banks in 58 countries	Results indicated that bank size and physical infrastructure are the most robust predictors of barriers. Additionally, more competition,	A study on whether bank size and physical infrastructure are barriers to bank access by their customers need to be undertaken. Barriers to	Deposits of banks and loans to borrowers are important to banks and are expected to lead to an increase in financial

(2006)		open and transparent economies, better contractual information networks are associated with lower barriers	access to financial services limits the granting of loans to borrowers which is the major source of income (interest income) for banks and limit their supply of funds by banks due to limited access by savers.	performance which is one of the aspects addressed by this study
Hoenig and Morris (2012)	Restructuring the Banking System to Improve Safety and Soundness using sector data	Increased competition for banks led to reduced profits which forced banks to engage in bank and nonblank activities to enable them increase their income which increased the complexity of managing the banks.	The effect of bank restructuring through expansion and resulting complex organizations on performance is likely to yield different results in the Kenyan case.	This study establishes the effect of different types of bank restructuring on financial performance
Barako *et. al.* (2013)	Firm specific factors (years in business, profitability, ownership and size) and access to financial services (branch networks) of Kenyan banks using a survey	Results indicate that firm characteristics (total assets and capitalisation) is strongly and positively associated with access to financial services.	This study did not establish the effect of firm specific factors and access to financial services on financial performance. The focus of the study was majorly on the extent of financial inclusion and financial exclusion	This study analyses the effect of financial services on profitability and also the effect of firm characteristics on profitability as well as the joint effect of firm specific factors and financial services on profitability

Source: Author (2017)

The main research gaps that are eminent as indicated in table 2.1 are that the timing and sequencing of bank restructuring is necessary. There is yet to be evidence whether banks use their own funds to restructure or rely on government funding for bank restructuring in Kenya. The effect of bank characteristics on different types of bank restructuring and financial performance is an important research. The differences in range of financial services offered by foreign versus local banks that have gone through the restructuring process and the resulting financial performance is important. The effect of bank restructuring sometimes results to large complex organizations which offer many financial services to bank clients. A study on pre and post crisis bank restructuring scenario in terms of financial performance is essential.

2.5 Conceptual Framework

The knowledge gap highlighted lead to the development of the conceptual framework which guides the empirical research in filling the gaps identified from the review of empirical literature. From the model, bank restructuring is the independent variable, which will be measured using financial, capital, operational and asset restructuring; while financial performance is the dependent variable. Bank restructuring is expected to lead to an increase in financial performance (H_1).

Financial performance was measured using return on assets. Bank characteristics which are the moderating variable were measured using size and ownership. The indicator of size is value of bank assets and bank ownership is whether banks are locally or foreign owned. Foreign owned banks are known to report better financial performance than locally owned banks because foreign banks adhere to strict foreign policies which may not apply to local banks. Bank restructuring of foreign owned banks is expected to increase financial performance of the banks because they have more experience after restructuring the banks that operate in other countries. Many local banks exist to further certain country interests which may limit their ability to

report high profits. Bank restructuring of locally owned banks is expected to decrease financial performance because of incurrence of high restructuring costs. Large banks tend to have more resources and are therefore able to open more branches and offer more financial services than small banks. Large banks which tend to have a wide branch and ATM network are expected to more profitable than small banks (Al-Obaidan, 2008). This is shown by loop H_2.

Financial services which in this study are an intervening variable of the relationship between bank restructuring and financial performance, was measured using deposits and loans. A composite variable for financial services was also estimated as an arithmetic average of deposits and customer loans. The more the deposits, the higher the customer loans, the higher the volume of mobile transactions, the bigger the branch network, the more the ATMs, the more the bank agents and the better the technology, the easier it is to undertake the restructuring process and the more profitable the commercial banks are expected to be. Bank restructuring increases the scope of financial services extended by banks and is expected to increase financial performance of banks. This is shown by H_3. The breadth and depth of financial services offered will influence the ability of the restructured banks to impact positively on financial performance (Barako *et. al.*, 2013).

The joint effect of bank restructuring, financial services and firm characteristics on financial performance is shown by H_4. The more the deposits, the higher the customer loans, the wider the branch network, the more the ATMs, the higher the value of mobile banking transactions, the more the bank agents, the better the technology, the larger the bank and the higher the proportion of foreign ownership, the more profitable the bank is expected to be. Smaller banks which were originally microfinance institutions are expected to be more thinly spread, with lower deposits, smaller loans, fewer branches, fewer ATMs, low volume of mobile transactions,

fewer bank agents, lower level of technology, and relatively smaller value of assets which tend to be locally owned are usually less profitable.

The review of literature shows that research has been conducted on individual variables. Other studies have established the relationships between the independent, intervening, moderating variables with the dependent variable. The relationship between bank restructuring and financial performance has been established by scholars. The conceptual model proposes that the relationship between bank restructuring and financial performance is intervened by financial services and moderated by bank characteristics. This is the relationship that has not been established by other researchers which this study seeks to investigate. The expected relationship is that bank restructuring leads to positive financial performance.
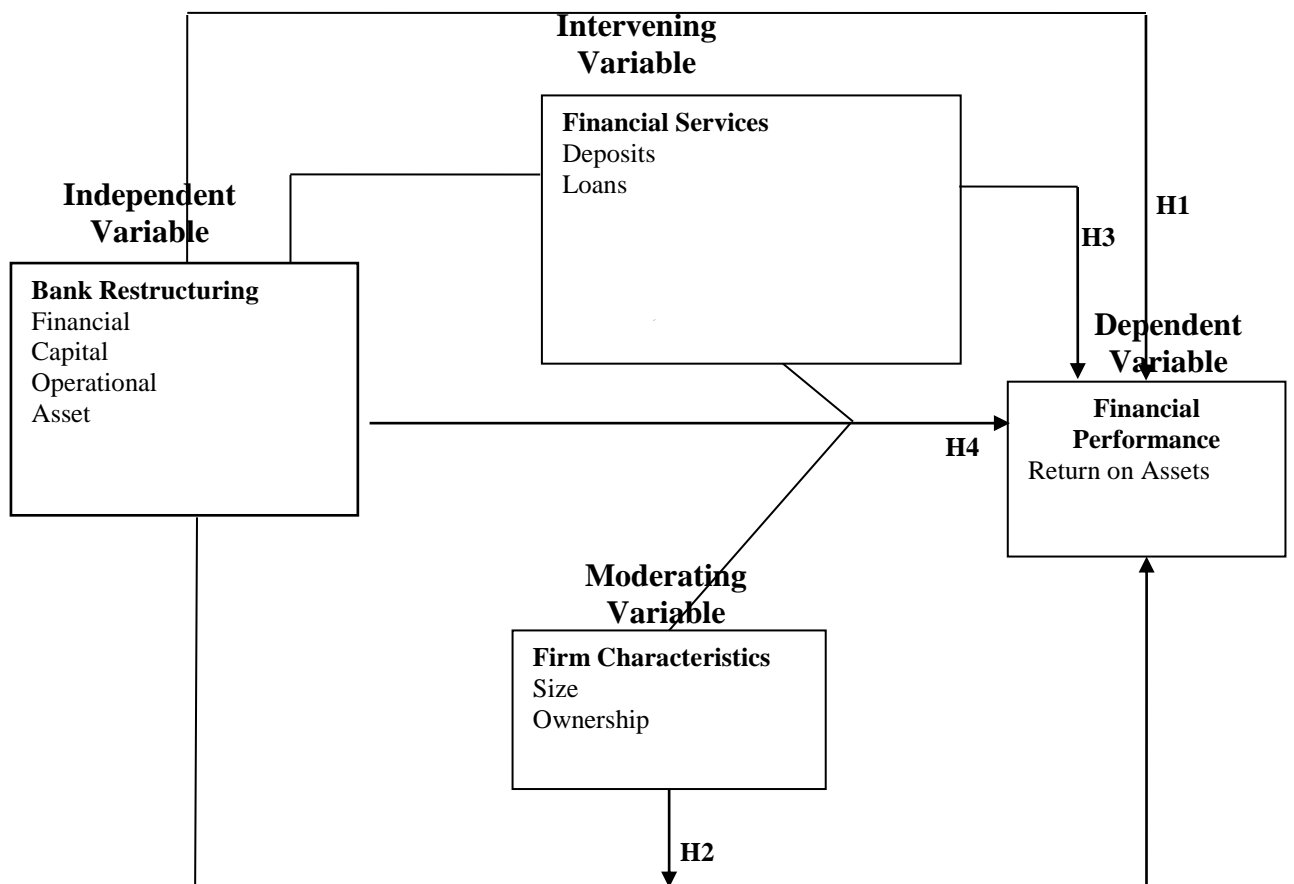
Figure 2.1: Conceptual Model
Source: Author (2017)

2.6 Research Hypotheses

The null hypotheses are:

H₁: The relationship between bank restructuring and financial performance of commercial banks in Kenya is not significant.

H₂: The moderating effect of bank characteristics on the relationship between bank restructuring and financial performance of commercial banks in Kenya is not significant

H₃: The mediating effect of financial services on the relationship between restructuring and financial performance of commercial banks in Kenya is not significant.

H₄: The joint effect of bank restructuring, financial services and bank characteristics on financial performance of commercial banks in Kenya is not significant.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research methodology that was employed in the study. A detailed description of the research philosophy, research design, study population, methods of collecting data, reliability and validity of the research instruments, operationalisation of the study variables and data analysis techniques is presented.

3.2 The Research Philosophy

Research philosophy is defined as the foundation of knowledge that contains assumptions that are important about the way the researcher views the world (Saunders *et. al.*, 2007). The main research philosophies are positivism and phenomenology. Positivism contends that the external existence of the real social world and its properties should be measured through methods that are objective rather than using subjectivity through sensation, reflection or intuition.

Phenomenology argues that reality is socially constructed rather than objectively determined in the case of social sciences, thus the task of the social scientist should not be to gather information and measure how regularly certain patterns occur, but to appreciate the different constructions and meanings that people place upon their experiences (Cooper & Schindler, 2003, Zikmund *et. al.*, 2013). This study relied on positivism and recognized the fact that the social world exists externally, and that its properties should be measured through objective methods, rather than being inferred subjectively through sensation, reflection or intuition.

3.3 Research Design

A research design refers to a blue print for carrying out a study with maximum control over factors that have an effect on the validity of the findings. Research designs are either experimental or non-experimental (Adams & Schvaneveldt, 1991). This study relied on descriptive research design. The research design was preferred for this study as it has hypotheses that are clearly stated and seeks to establish the cause and effect relationship between two or more variables (Cooper & Schindler, 2003). Further, the researcher collected data that was subjected to statistical analysis for hypothesis testing to come up with objective conclusions (Saunders *et. al.*, 2007). The study was to establish the relationship between bank restructuring and financial performance while at the same time seeking to determine whether financial services and bank characteristics have any influence on the relationship.

3.4 Population

Cooper and Schindler (2003) describe a population as an entire group of individuals, happenings or objects having common characteristics that conform to a given specification. This research was a census of all the 44 entities carrying out banking business in Kenya. As at 31st December 2014, there were 43 commercial banks registered under the banking act and 1 mortgage company (Appendix II).

3.5 Data Collection

This study used secondary data for the period 2002 to 2014. This period was selected because this is the period when the Kenyan economy implemented the multiparty system of Government. There was banking crisis due to economic decline that occurred from 1998 to 2001 inclusive. The thirteen year study period for the 44 banks provides sufficient data to be used in the analysis. Data on the study variables was obtained from the financial statements.

To achieve the objectives of the study (objective one, two, three and four) data was obtained from the financial statements of the commercial banks. Data on performance was on return on assets. The data in this case was profit before tax (PBT) as measured using PBT divided by total assets. The data on bank restructuring focused on the four types of bank restructuring which are; financial, capital, operational and asset restructuring which was obtained from audited financial statements and Central Bank of Kenya Annual Bank Supervision Reports. Data was collected for the entire period of the study which was available from the financial statements for the institutions that were in business.

Data on net income, total assets; data on long term debt, owner's equity, total loans, non-performing loans; data on customer deposits, branch and ATM networks, and data on ownership was obtained from the financial statements of the commercial banks and Central Bank of Kenya Bank Annual Supervision Reports for the period 2002 to 2014 . In years when a particular type of restructuring was not undertaken data analyzed relate to other types of restructuring and a score of zero was assigned to the year when no restructuring was done. Only the years when data was available was included in the analysis such that if no restructuring was done in a particular year, only observations for years with data (years when restructuring was done) were included in the analysis and the other years had scores of zero. The financial statements were obtained from the Central Bank and individual banks websites. Where the data was not available from the bank websites it was obtained from the banks themselves. A trained and competent research analyst was employed to collect the data and assist in data analysis.

3.6 Measurement of Variables

Performance was measured using the financial measures of performance. These measures of performance were used by Cooperman *et. al.* (2000), Dziobek and Pazarbasioglu (1998) and Rose (1994) who carried out their studies in developing countries. Using the same measures of performance in Kenya was expected to yield different results since Kenya is a developing country. The financial performance measures in this study were measures of profitability.

Profitability was measured using return on assets (ROA). Financial restructuring was measured using long-term debt to asset ratio, capital restructuring using owner's equity to total assets, operational restructuring using change in branches and ATMs as proxies and asset restructuring as non-performing loans to total loans (Rose 1994). A bank was considered to have restructured when it reorganized its operations, ownership, borrowed funds, reduced or increased the level of nonperforming loans, reorganized its financial assets or changed its organizational structure. Restructuring is considered to have been undertaken throughout the study period.

A bank was considered as having undertaken financial restructuring if there was a change in its long-term debt; capital restructuring if there was a change in its capital levels; operational restructuring if it opened or closed branches including mergers, acquisitions and opening subsidiaries or closed subsidiaries and installation of ATMs. This includes bank mergers and bank branching to expand the geographical coverage. Deposits were measured using deposit to asset ratio while, loans were measured using customer loans to total assets. These measures were used by Dziobek and Pazarbasioglu, (1998) and Rose (1994). Size was measured by natural logarithm of total assets of the banks while ownership was measured in terms of whether

ownership was local or foreign. Local ownership was given a score of one (local = 1)

and foreign ownership was given a score of zero (Foreign = 0).

Table 3.1 Operationalization of Variables

Concept(Variables)	Operationalization of Variables	Hypotheses	Source of Measure	Measure
Profitability: Return on Assets	Profit before tax (PBT) and total assets	H1, H2, H3, H4	Dziobek & Pazarbasioglu (1998), Rose (1994)	Ratio of (PBT) to total assets
Bank Restructuring				
Financial Occurred if: There was bank long-term debt	Total long term debt and total assets	H1, H2, H3, H4	Dziobek & Pazarbasioglu (1998), Rose (1994)	Long term debt/total assets
Capital Occurred if: There bank equity	Total equity and total assets	H1, H2, H3, H4	Dziobek & Pazarbasioglu (1998), Rose (1994)	Equity/total assets
Operational Occurred if: There was a change in number of branches and ATM networks	Total number of branches, total number of ATMs.	H1, H2, H3, H4	Dziobek & Pazarbasioglu (1998), Rose (1994)	Composite value of change in number of branches and ATMs.
Asset Occurred if: There was provision for non-performing loans	NPLs, total loans.	H1, H2, H3, H4	Dziobek & Pazarbasioglu (1998), Rose (1994)	Provision for NPLs to total loans.

Financial Services				
Deposits	Total deposits and total assets	H2, H4	Cooperman, Gardener & Mills (2000), Rose (1994), Dubel & Berlin (2013)	Total deposits/total assets
Customer loans	Total loans and total assets	H2, H4	Cooperman, Gardener & Mills (2000), Rose (1994), Dubel & Berlin (2013)	Total loans/total assets
Firm characteristics				
Size	Total assets	H3, H4	Cooperman, Gardener & Mill (2000), Rose (1994), Dubel & Berlin (2013)	Natural logarithm of total assets
Ownership	Foreign or local ownership	H3, H4	Cooperman, Gardener & Mill (2000), Rose (1994), Dubel & Berlin (2013)	Ownership was either local or foreign. Local ownership=1 Foreign ownership=0

Source: Author (2017)

3.7 Reliability and Validity Tests

Validity is usually divided into content validity and construct validity. Content validity is focused in whether the inclusion of a sufficient number of study items and dimensions are able to capture the concept being studied. Construct validity is concerned with how well the results of using the measure is part of the theory which informed the study (Sekaran, 2006). Validity can also be divided into internal or external validity. Internal validity is the ability to determine whether a causal relationship exists whereby certain conditions are known to lead to other instances and superior relationships are distinguished from others while external validity is the ability of the research design to establish the main area within which a study's findings can be generalized (Saunders *et. al.*, 2007). External validity is therefore the degree of generalization of findings of the sample studied to the whole population. Data validity was achieved by using a simple data collection instrument (data collection sheet) and the data was obtained from financial statements which are authentic sources of data. This is the data that has been audited and submitted to the Central Bank.

Internal consistency measures the associations between different items on the same test and whether many items that propose to measure the same general construct arrive at similar results. To increase reliability, data was collected and analyzed by a professional data expert and cleaned up by trained data analysts. Accuracy of the data collected and entry of the data was closely supervised. No primary data was used in this study therefore primary data reliability measures were not conducted.

3.8 Data Analysis

A four step approach in data analysis as suggested by Sekaran (2006) was then undertaken which included; obtaining the data in the form ready for analysis (editing

the data for accuracy, consistency and completeness); taking the data to analyse (descriptive statistics), testing for multicollinearity and other relationships, testing the goodness of fit and finally testing the hypotheses. Descriptive statistics that were calculated were; the mean, median, standard deviation, skewness and kurtosis. The statistical package for social sciences (SPSS) version 21 was used for analyzing the data.

3.8.1 Empirical Model

The following empirical models state the various relationships discussed in the conceptual model that were subjected to statistical significance tests. The regression analysis model facilitated the analysis of the data in this study. The dependent variable was profitability while the independent variable was bank restructuring with financial services and firm characteristics being the intervening and moderating variables respectively.

3.8.2 Bank Restructuring and Financial Performance

The first research objective was to determine the relationship between bank restructuring and profitability of commercial banks in Kenya. The following regression model was used to test hypothesis one;

The dependent variable was profitability which was measured using Return on Assets (ROA) and independent variable was measured using bank restructuring denoted as financial restructuring, capital restructuring, operational restructuring and asset restructuring. Bank restructuring was disaggregated into financial, capital, operational and asset restructuring and fitted into the regression model of the form;

$ROA_{it} = \acute{\alpha}_{r11} + \beta_{rf1} FR_{rit} + \beta_{rc1} CR_{rit} + \beta_{ro1} OR_{rit} + \beta_{ra1} AR_{rit} + \varepsilon_{r11}$ ……………..….1
Where:

ROA is return on assets, FR is financial restructuring, CR is capital restructuring, OR is operational restructuring, AR is asset restructuring, α_{r11}, is the constant term, β_{rf1}, β_{rc1}, β_{ro1}, and β_{ra1} are the regression coefficients, i is income for bank i and t is the year when the bank earns the income while ε_{r11} is the error term.

3.8.3 Bank Restructuring, Size and Ownership and Financial Performance

The second objective was to establish the moderating effect of size and ownership on the relationship between bank restructuring and profitability. This was carried out using the two steps methodology (Baron & Kenny, 1986). The moderating effect of size and ownership on the relationship between bank restructuring and profitability was done separately because ownership data was nominal (with 1 = local, 0 = foreign). The moderating effect of size is stated as follows:

$$ROA_{it} = \alpha_{r22} + \beta_{rf22}FR_{rit} + \beta_{rc22}CR_{rit} + \beta_{ro22}OR_{rit} + \beta_{ra22}AR_{rit} + \beta_{rz22}Sz_{rit} +$$

$$\beta_{rfz} (FR_{fit}SZ_{fit}) + \beta_{rcz} (CR_{fit}SZ_{fit}) + \beta_{rom}(OR_{fit}SZ_{fit}) + \beta_{raz} (AR_{fit}SZ_{fit}) +$$

$$\varepsilon_{r22} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots..2$$

The moderating effect of ownership on the relationship between bank restructuring and financial performance was analyzed separately for local banks and foreign banks. The equation is stated as follows:

$$ROA_{it} = \alpha_{r22} + \beta_{rf22}FR_{rit} + \beta_{rc22}CR_{rit} + \beta_{ro22}OR_{rit} + \beta_{ra22}AR_{rit} + \varepsilon_{r22}$$

$$\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots.....3$$

Where ROA, FR, CR, OR and AR are as defined in equation 1, α_{r21} is the intercept, ε_{r21} is the error term, Sz_{rit} is the moderating effect as denoted by the size of the banks β_{rf21}, β_{rc21}, β_{ro21}, β_{ra21}, β_{rz21}, and β_{rs21} are coefficients for the respective determinants.

3.8.4 Bank Restructuring, Financial Services and Financial Performance

The third objective was to establish the intervening effects of financial services variables on the relationship between bank restructuring and profitability. This was done using three steps methodology.

Step 1 is as stated in equation 1

Step 2: In equation 4 to 6 ony the variables whose coefficients (β_{rf1}, β_{rc1}, β_{ro1} and β_{ra1}) are significant are considered further.

$$DP_{it} = \acute{\alpha}_{dp} + \beta_{df}\,FR_{it} + \beta_{dc}\,CR_{it} + \beta_{do}\,OR_{it} + \beta_{da}\,AR_{it} + \varepsilon_{dp} \dots\dots\dots\dots\dots\dots\dots\dots\dots 4$$

$$CL_{it} = \acute{\alpha}_{cl} + \beta_{cf}\,FR_{it} + \beta_{cc}\,CR_{it} + \beta_{co}\,OR_{it} + \beta_{ca}\,AR_{it} + \varepsilon_{cl} \dots\dots\dots\dots\dots\dots\dots\dots 5$$

$$FS_{it} = \acute{\alpha}_{fs} + \beta_{ff}\,FR_{it} + \beta_{fc}\,CR_{it} + \beta_{do}\,OR_{it} + \beta_{fa}\,AR_{it} + \varepsilon_{fs} \dots\dots\dots\dots\dots\dots\dots\dots 6$$

Where FR, CR, OR, AR are as indicated in equation 1 α_{dp} - α_{fs} are the constants, $\beta_{df,}$ - β_{da} are coefficients, DP is deposits, CL is customer loans and FS is financial services (which is a composite value of deposits and customer loans computed as the arithmetic average of deposits and customer loans), ε_{dp} - ε_{fs} are the error terms.

Step 3: The intervening variables with significant coefficients (β) were considered for further analysis. The intervening effect on the relationship between bank restructuring and financial performance was done separately. Where the intervening effect of deposits on the relationship between bank restructuring and financial performance was done based on equation stated below.

$$ROA_{it} = \alpha_{r33} + \beta_{rf3}FR_{rit} + \beta_{rc3}CR_{rit} + \beta_{ro3}OR_{rit} + \beta_{ra3}AR_{rit} + \beta_{rd3}DP_{rit} + \varepsilon_{r33} \dots\dots\dots\dots 7$$

The intervening effect of customer loans on the relationship between bank restructuring and financial performance is stated in equation 8.

$$ROA_{it} = \alpha_{r33} + \beta_{rf3}FR_{rit} + \beta_{rc3}CR_{rit} + \beta_{ro3}OR_{rit} + \beta_{ra3}AR_{rit} + \beta_{rl3}CL_{rit} + \varepsilon_{r33} \dots\dots\dots\dots 8$$

The intervening effect of financial services on the relationship between bank restructuring and financial performance is stated in equation 9.

For a variable to be intervening, its coefficient (β_{rf3}, β_{rc3}, β_{ro3} β_{ra3}, β_{rd3} and β_{rl3}) must be significant and the coefficient of the characteristic being mediated must be significant or significantly less when the mediator is included ($\beta_{rf3 <} \beta_{rf1}$, $\beta_{rc3 <} \beta_{rc1}$, $\beta_{ro3 <} \beta_{ro1}$, $\beta_{ra3 <} \beta_{ra1}$, $\beta_{rd3 <} \beta_{rd1, \text{ and }} \beta_{rl3 <} \beta_{rl1}$)

The study further sought the combine intervention of the deposits and customer loans and the model equation is as stated below:

$$ROA_{it} = \alpha_{r33} + \beta_{rf3}FR_{rit} + \beta_{rc3}CR_{rit} + \beta_{ro3}OR_{rit} + \beta_{ra3}AR_{rit} + \beta_{rd3}FS_{rit} + \varepsilon_{r33} \dots\dots 9$$

Where ROA, FR, CR, OR, AR, α_{r33}, $\beta_{rf3} - \beta_{rl3}$, and *it* are as defined in equation 1, DP is deposit and CL customer loans, FS is a composite value for financial services while ε_{r33} is the error term.

3.8.5 Bank Restructuring, Financial Services, Size and Ownership and Financial Performance

The fourth objective was to establish the joint effect of financial services, size and ownership on the relationship between bank restructuring and profitability. The joint effect on the relationship between bank restructuring and financial performance for local and foreign banks is done separately. The equation is stated as follows:

$$ROA_{it} = \alpha_{r44} + \beta_{rf4}FR_{rit} + \beta_{rc4}CR_{rit} + \beta_{ro4}OR_{rit} + \beta_{ra4}AR_{rit} + \beta_{rd4}DP_{rit} + \beta_{rl4}CL_{rit} + \beta_{rs4}Szr_{it} + \varepsilon r_{44} \dots\dots\dots 10$$

Where ROA, PR, FR, CR, OR, AR, α_{r44}, and $_{it}$ are as defined in equation 1; DP, and CL are as defined in equation 5 to equation 6; β_{rf4}, β_{rc4}, β_{ro4}, β_{ra4}, β_{rd4}, β_{rl4}, and β_{rs4} are coefficients for the respective determinants, while α_{r44} is the intercept.

SZ is as defined in equation 2 and 3 while ε_{r44} is the error term.

Table 3.2 summarizes the objectives of the study, the study hypothesis, models of analysis and the interpretation of the results statistics.

Table 3.2: Objective, Hypothesis, Analytical Model and Interpretation of Results

OBJECTIVE	HYPOTHESIS	ANALYTICAL MODEL	INTERPRETATION OF THE RESULTS
To establish the effects of bank restructuring on financial performance of commercial banks in Kenya	The relationship between bank restructuring and financial performance of commercial banks in Kenya is not significant	The regression equation of bank restructuring and financial performance $$ROA_{it} = άr_{11} + βr_{f1} FRr_{it} + βr_{c1} CRr_{it} + βr_{01} ORr_{it} + βr_{a1} ARr_{it} + εr_{11}$$	A relationship exists if $βi$ is significant Statistical significance of any of the coefficients of the independent variables
To determine the moderating effect of firm characteristic on the relationship between bank restructuring and financial performance of commercial banks in Kenya	The moderating effect of bank characteristics on the relationship between bank restructuring and financial performance of commercial banks in Kenya is not significant.	Moderating equation of size on bank restructuring and financial performance $$ROA_{it} = α_{r22} + β_{rf22}FR_{rit} + β_{rc22}CR_{rit} + β_{ro22}OR_{rit} + β_{ra22}AR_{rit} + β_{rz22}Sz_{rit} + β_{rfz} (FR_{fit}SZ_{fit}) + β_{rcz} (CR_{fit}SZ_{fit}) + β_{rom}(OR_{fit}SZ_{fit}) + β_{raz} (AR_{fit}SZ_{fit}) + ε_{r22}$$ Moderating equation of ownership on bank restructuring and financial performance was done separately for local banks and for foreign banks	A relationship exists if $βi$ is significant Statistical significance of any of the coefficients of the independent variables

		$\text{ROA}_{it} = \alpha_{r22} + \beta_{rf22}\text{FR}_{rit} + \beta_{rc22}\text{CR}_{rit} + \beta_{ro22}\text{OR}_{rit} + \beta_{ra22}\text{AR}_{rit} + \varepsilon_{r22}$	
To establish the intervening effect of financial services on the relationship between bank restructuring and financial performance of commercial banks in Kenya.	The mediating effect of financial services on the relationship between bank restructuring and financial performance of commercial banks in Kenya is not significant.	Intervening equation of deposits on bank restructuring and financial performance $\text{ROA}_{it} = \alpha_{r33} + \beta_{rf3}\text{FR}_{rit} + \beta_{rc3}\text{CR}_{rit} + \beta_{ro3}\text{OR}_{rit} + \beta_{ra3}\text{AR}_{rit} + \beta_{rd3}\text{DP}_{rit} + \varepsilon_{r33}$ $\text{ROA}_{it} = \alpha_{r33} + \beta_{rf3}\text{FR}_{rit} + \beta_{rc3}\text{CR}_{rit} + \beta_{ro3}\text{OR}_{rit} + \beta_{ra3}\text{AR}_{rit} + \beta_{rl3}\text{CL}_{rit} + \varepsilon_{r33}$ $\text{ROA}_{it} = \alpha_{r33} + \beta_{rf3}\text{FR}_{rit} + \beta_{rc3}\text{CR}_{rit} + \beta_{ro3}\text{OR}_{rit} + \beta_{ra3}\text{AR}_{rit} + \beta_{rd3}\text{FS}_{rit} + \varepsilon_{r33}$	A relationship exists if βi is significant Statistical significance of any of the coefficients of the independent variables
To establish the joint effect of bank restructuring, services offered and firm characteristics on financial performance of commercial banks in Kenya	The joint effect of bank restructuring, financial services and bank characteristics on financial performance of commercial banks in Kenya is not significant.	Regression equation on joint effect of bank restructuring, financial services and firm characteristics on financial performance. Two regression equations were estimated because data on ownership was nominal. The first regression equation was for locally owned banks and the second regression equation was for foreign owned banks The first regression under this objective was stated as follows;	A relationship exists if βi is significant Statistical significance of any of the coefficients of the independent variables.

		$ROA_{it} = \alpha r_{44} + \beta r_{f4}FRr_{it} + \beta r_{c4}CRr_{it} + \beta r_{o4}ORr_{it} + \beta r_{a4}ARr_{it} + \beta r_{d4}DPr_{it} + \beta r_{l4}CLr_{it} + \beta r_{s4}Szr_{it} + \varepsilon$ The second regression equation under objective two was stated as follows; $ROA_{it} = \alpha r_{44} + \beta r_{f4}FRr_{it} + \beta r_{c4}CRr_{it} + \beta r_{o4}ORr_{it} + \beta r_{a4}ARr_{it} + \beta r_{d4}DPr_{it} + \beta r_{l4}CLr_{it} + \beta r_{s4}Szr_{it} + \varepsilon r_{44}$	

Source: Author (2017)

CHAPTER FOUR

DESCRIPTIVE STATISTICS

4.1 Introduction

Chapter four addresses issues relating to the response rate and provides the descriptive statistics of the study variables. Descriptive statistics are important for the researcher to visualize the data especially if the data is voluminous. It also enables the presentation of the data in a more meaningful way which enables simpler interpretation of the data. Descriptive statistics is however accused of relying on a sample inferential statistics which demands researchers to go a step further by undertaking inferential statistics (hypothesis testing) which enables the researcher to generalize about the population. This chapter presents the results of descriptive statistics of bank restructuring, financial services, firm characteristics and financial performance. Measures of central tendency, dispersion and skewness including the mean, the standard deviation and kurtosis are also presented. The study concludes with correlation analysis of the study variables and hypothesis testing.

4.2 Response Rate

Out of the 44 commercial banks representing the total population of the Kenya banking sector, adequate data to test the empirical model was available from 39 out of the 44 commercial banks which represented a response rate of 88.6%. This response rate was considered adequate as a basis for deriving conclusions from the study. For example, Mwangi (2014) in a study of member's income and efficiency of SACCOs obtained a response rate of 67% (144 out of 215 SACCOs). Whereas data for analysis in chapter four was obtained from the Central Bank of Kenya Bank Supervision Annual reports for the period 2002 to 2014 and from the Central Bank of Kenya Bank

Supervision department, detailed data to enable empirical analysis was not available from 5 banks. Therefore the empirical model in chapter five was based on 39 commercial banks from which all the data to fit in the empirical model was available. According to Mugenda and Mugenda (2009), a response rate of above 70 percent is excellent for analysis and making conclusions. Therefore, in view of this affirmation, the rate of response reported by this study was sufficient to be used as a basis for drawing conclusions from the study.

Table 4.1 Response Rate Distribution

Response Rate	Frequency	Percentage
All data available	39	88.6
Some data not available	5	11.4
Total	**44**	**100**

Source: Research Findings

4.3 Descriptive Statistics of Financial Performance

Descriptive statistics included in this study are measures of mean, minimum, maximum, standard deviation, standard error of estimate, skewness and kurtosis. Whereas the mean is a measure of central tendency used to describe the most typical value in a set of values, the standard deviation is a measure of deviation from the central tendency. The standard error on the other hand is a statistical term that measures the accuracy within a set of values. Skewness is a measure of symmetry, or more precisely, the lack of symmetry. Kurtosis is a measure of whether the data are peaked or flat relative to a normal distribution. A data distribution is symmetric if it looks the same to the left and right of the centre point (Cooper & Schindler, 2003).

Table 4.2 shows that financial performance had an indicator of 2.75% (ROA as a percentage of total assets) with a standard deviation of 2.396%. This means on

average bank restructuring increases bank financial performance by 2.75%. The results show that the skewness and kurtosis for financial performance are both positive.

Table 4.2 Financial Performance Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness			Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Z - Value	Statistic	Std. Error	Z - Value
Financial Performance	507	.0190	0.374	0.0275	0.02396	5.832	0.108	0.019	76.931	.217	0.003

Source: Research Findings

The minimum aggregate value was 0.190 while the maximum aggregate value was 0.374. At 95% confidence interval the values of financial performance had no bias, with significant mean and significant standard deviation. At 95% confidence interval the skewness z- value and the kurtosis z-value reveal that the observations were normally distributed. The skewness z-value which is positive means that the data is skewed to the right.

4.4 Descriptive Statistics of Bank Restructuring

Table 4.3 displays the bank restructuring as denoted by financial restructuring, capital restructuring, operational restructuring and asset restructuring variables. Financial restructuring had a debt to total asset ratio of 6.22% with a variation of 15.726% on either side. Capital restructuring had equity to asset ratio of 13.93% with a standard deviation of 7.365%. Operational restructuring indicated a change in the aggregate of branch and ATM ratio of less than one aggregate unit and branches and ATMs in aggregate with a standard deviation of less than one branch and/or ATM. Asset restructuring showed a nonperforming loan to total loan ratio of 0.0845 meaning that on average nonperforming loans to total loans is on average 8.45%. This means that

for all loans extended to the customers, 8.45% ends up being nonperforming loans. The standard deviation on nonperforming loans to total loans is 11.09%.

Additionally, financial restructuring, capital restructuring, operational restructuring and asset restructuring had positive skewness while all the variables had positive kurtosis. The skewness z-values show that all the data observations are skewed to the right. The kurtosis z-value for financial restructuring, capital restructuring, operational restructuring and asset restructuring are within the acceptable range of less than +1.96 and more than -1.96. The conclusion is therefore that the data on the independent variables follow a normal distribution.

Table 4.3 Bank Restructuring

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness			Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Z - Value	Statistic	Std. Error	Z - Value
Financial restructuring	507	.013	.941	.0622	.15726	3.855	.108	0.028	14.929	.217	0.015
Capital restructuring	507	.011	.460	.1393	.07365	.787	.108	0.137	1.794	.217	0.121
Operational restructuring	507	.014	.403	.0510	.04151	3.567	.108	0.030	19.884	.217	0.011
Asset restructuring	507	.010	.842	.0845	.11099	3.181	.108	0.034	13.020	.217	0.017

Source: Research Findings

The minimum value for financial restructuring is 0.013 while the maximum value is 0.941, an indication that commercial banks have different levels of debt in their financial structure. The extent of usage of debt varies across and among banks as indicated by the level of the standard deviation. At 95% confidence interval, the mean is significant with no level of bias. The standard deviation is also significant at 95% confidence level and the data on financial restructuring as measured using the level of bank borrowing is normally distributed.

Capital restructuring is an important variable because banks generally restructure their capital either by way of requiring investors to inject additional capital or by way of receiving additional capital from government especially the government owned commercial banks. The minimum value for this variable is 0.011 while the maximum value is 0.460 an indication that the extent to which, banks restructure their capital varies.

Operational restructuring focuses on the ability and extent to which banks restructure their operations. Although the costs of restructuring commercial banks is usually significant and might lead to reduced profits in the short run, expanded branch network, increasing the number of ATMs, entrenchment of agency banking in the banking sector calls for operational restructuring. The test of normality estimates a skewness z-value of 0.030 while the kurtosis measure is 0.011. The skewness z – measure of operational restructuring suggests that data is skewed to the right. The kurtosis z – measure of operational restructuring is below 1.96 and above -1.96, an indication that the data is normally distributed. Young and Rice (2003) states that well-managed banks expand more slowly into noninterest activities such as opening subsidiaries and branches that might not necessarily generate interest income to diversify their profits.

Suehiro (2002) in his research on restructuring and re-engineering of local commercial banks in Thailand finds that NPLs decreased from 42.9% to 10.5% during the study period 1998 to 2001. The introduction of Credit Reference Bureau regulations that were operationalized in 2009 enabled the sharing of credit information to facilitate the pricing of credit risk, accumulation of information capital and increased access to credit. It is expected that the credit information sharing system

enhances the decision making process of credit providers in Kenya as they seek to mitigate risks associated with information asymmetry.

4.5 Descriptive Statistics of Financial Services

Table 4.4 shows that the mean values of deposits and customer loans which are the measures of financial services were 67.56% and 51.52% as a proportion of total assets respectively. The results show that deposits are more than customer loans in the Kenya banking sector. Additionally, deposits vary from the mean with 16.964% on average while customer loans vary with 19.580% from the mean of 51.52%. The results show that the data on both deposits and customer loans have positive skewness meaning that the data observations are skewed to the left. The kurtosis z-value of deposits and customer loans indicate that the data on the two variables is normally distributed.

Table 4.4 Financial Services

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness			Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Z - value	Statistic	Std. Error	Z - value
Deposits	507	0.143	0.982	0.6756	0.16964	-1.963	0.108	-0.055	4.722	0.217	0.046
Customer loans	507	0.212	0.991	0.5152	0.19580	-0.392	0.108	-0.276	0.520	0.217	0.417

Source: Research Findings

The minimum value of deposits was 0.143 and the maximum value of the deposits was 0.982. The mean value of deposits 67.56% of total assets and a standard deviation of 16.964% on average reveals that deposits are high with significant variation as indicated by the standard deviation value. With a minimum deposits value of 0.143 and a maximum value of 0.982, denotes that deposit levels of banks varied. Therefore there are banks whose deposit to asset ratio is quite high. The statistics on skewness and kurtosis is a revelation that the data is normally distributed.

At 95% confidence interval the mean of the deposits had no bias. In the same token, the level of bias was zero for the standard deviation, skewness and kurtosis at the 95% confidence level.

Customer loans had a mean statistic of 0.5152 to total assets and a standard deviation of 0.1958. Customer loans are therefore 51.52% as a proportion of bank total assets with a data variation of 19.58%. This shows that customer loans are significantly high with much variation. The minimum value of customer loans is 0.212 while the maximum value was 0.991 denoting a significant range in terms of the difference between the lowest and the highest value. There are therefore banks with loans to asset ratio which is quite high. The statistics shows that the skewness z-measure is -0.276 denotes that the data observations are skewed to the left. The kurtosis z-measure shows that the data is normally distributed. At 95% confidence interval, the mean of the customer loans had zero bias with significant standard deviation and the data observations were normally distributed.

4.6 Descriptive Statistics of Firm Characteristics

Table 4.5 shows that the values of size of the banks as measured using the natural logarithm of the value of total assets is 4.0928. The ownership value of 0.7179 reveals that the majority of commercial banks in Kenya are locally owned. The standard deviation of size of banks is 0.83 meaning that the size of banks varied significantly. The ownership standard deviation is 0.45 and indication that variation of banks in terms of ownership is significant. The results show that data observations on bank size were skewed to the left as denoted by skewness z-value of -0.048. The kurtosis z-value denotes that the data observations of bank size are normally distributed. The skewness z-value of bank ownership indicates that the data observation is skewed to the left. The kurtosis z-value of the same variable was also negative with a value of -

0.205. The implication is that the data on firm characteristics as measured using size and bank ownership may not be normally distributed.

Table 4.5 Firm Characteristics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness			Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Z – Value	Statistic	Std. Error	Z – Value
Size of the bank	507	3.051	5.580	4.0928	0.83843	-2.261	0.108	-0.048	10.056	0.217	0.022
Bank ownership	507	0.000	1.000	0.7179	0.45044	-0.972	0.108	-0.111	-1.060	0.217	-0.205

Source: Research Findings

The moderating effect as measured using size and ownership reveals a mean size of the banks of 4.0928 with a standard deviation of 0.83843 which indicates that banks in Kenya significantly vary in size. Additionally, the size of the banks in terms of logarithm of total net assets (which was used to deal with differences in size) on a year by year basis fluctuated during the study period as indicated by the standard deviation.

The minimum value of the bank size was 3.051 while the maximum value of bank size was 5.580. At 95% confidence interval the bank size values have a zero bias in terms of the means, the standard deviation, the skewness and the kurtosis. The skewness z-value of -0.048 is an indication that data observations were skewed to the left. The kurtosis z-value of 0.022 indicates that the data observation is normally distributed. The minimum value of bank size was 0.00 while the maximum size was 5.58 an indication that there is a significant range between the smallest and biggest bank.

Bank ownership had an estimated mean of 0.7179 and a standard deviation of 0.45044 denoting that the majority of banks in Kenya are locally owned with little variation in

terms of ownership. The minimum value was 0.00 while the maximum value was 1.00 an indication that the banks under study are either generally locally owned or foreign owned. However the mean of 0.7179 shows that there are banks that are partially locally owned and partially foreign owned and that the majority of the banks in Kenya are locally owned. The skewness z-measure reveals that bank ownership data is skewed to the left. The kurtosis z-value of bank size reveals that the observations on bank size are normally distributed. The skewness z-value of bank ownership of - 0.111 shows that the data observations are skewed to the left. The kurtosis z-value of - 0.205 reveals that the distribution of the observations of bank ownership may not be normally distributed.

At 95% confidence interval the statistics did not portray any bias. The mean of 0.7179 was considered significant, the standard deviation was significant at 0.45044 and the skewness z-value and the kurtosis z-value indicate that the data observation on bank ownership may not necessarily be normally distributed.

4.7 Summary Statistics of Study Variables

Table 4.6 is a summary of the main variables and the number of observations relating to each variable. The table shows the descriptive statistics for the dependent variable which is the financial performance, the independent variables which are financial restructuring, capital restructuring, operational restructuring and asset restructuring, the intervening variables which are financial services as measured using deposits and customer loans and the moderating variables as measured using size and bank ownership.

Table 4.6: Summary Statistics of Study Variables

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness			Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Z - Value	Statistic	Std. Error	Z - Value
Financial Performance	507	0.019	0.374	0.0275	0.02396	5.832	0.108	0.019	76.931	0.217	0.003
Financial restructuring	507	0.013	0.941	0.0622	0.15726	3.855	0.108	0.028	14.929	0.217	0.015
Capital restructuring	507	0.011	0.460	0.1393	0.07365	0.787	0.108	0.137	1.794	0.217	0.121
Operational restructuring	507	0.014	0.403	0.0510	0.04151	3.567	0.108	0.030	19.884	0.217	0.011
Asset restructuring	507	0.010	0.842	0.0845	0.11099	3.181	0.108	0.034	13.020	0.217	0.017
Deposits	507	0.143	0.982	0.6756	0.16964	-1.963	0.108	-0.055	4.722	0.217	0.046
Customer loans	507	0.212	0.991	0.5152	0.19580	-0.392	0.108	-0.276	0.520	0.217	0.417
Size of the bank	507	3.051	5.580	4.0928	0.83843	-2.261	0.108	-0.048	10.056	0.217	0.022
Bank ownership	507	0.000	1.000	0.7179	0.45044	-0.972	0.108	-0.111	-1.060	0.217	-0.205

Source: Research Findings

The number of observations for the study was 13 observations for each bank for the 39 commercial banks. The years when restructuring was not done the value was taken to be zero. The 39 banks is further explained by the fact that some banks were not consistently in business during the period of study.

Although the banks which were the subject of analysis were the banks that were registered to do business as at 31st December 2014, some banks were registered to do business during the study period. Banks such as UBA bank and Jamii Bora bank among others were registered to do business under the banking act after 2002. Although Charterhouse Bank was listed as one of the banks registered by CBK as at 31st December 2014, data for this bank was not available for the period 2007 to 2014 inclusive but the data for the bank that was available for the years 2002 to 2006 inclusive was also not included in the analysis.

Table 4.6 is a summary of the descriptive statistics of all the study variables which have been discussed in this chapter. Summary statistics for financial performance, bank restructuring (as measured using financial restructuring, capital restructuring, operational restructuring and asset restructuring) deposits, customer loans, size and ownership are all presented in Table 4.6. The discussion of the statistics of the individual variables are discussed in Table 4.4.2, Table 4.3, Table 4.4 and Table 4.5.

The results therefore show that the bank independent variables as measures of restructuring have positive skewness and positive kurtosis when moderated by bank size and bank ownership and when intervened by deposits and customer loans. The implication is that intervening the relationship between bank restructuring and financial performance using deposits and customer loans and moderating the relationship between the dependent and the independent variables using bank size and bank ownership does not affect the normality of the data.

The implication of the intervening and the moderating variables is that the size and ownership of banks does not interfere with the normality of the data observations. The estimates of the data indicate that the dependent variable as measured using financial performance is normally distributed. The independent variables as measured using financial restructuring, capital restructuring, operational restructuring and asset restructuring are normally distributed. When the intervening variables which are the deposits and customer loans are introduced in the relationship they do not interfere with the normality of the data. Moderating the relationship between financial performance and bank restructuring as measured using financial restructuring, capital restructuring, operational restructuring and asset restructuring using size and ownership does not affect the normality of the data. Because data on ownership was nominal data descriptive statistics was segregated into the data for banks that are locally owned and data for banks that are foreign owned. Table 4.7 shows a summary for descriptive statistics for the locally owned banks. The dependent variable which is the financial performance, the independent variables which are financial restructuring, capital restructuring, operational restructuring and asset restructuring, the intervening variables which are financial services as measured using deposits and customer loans and the moderating variables as measured using size are summarized for locally owned banks.

The results provided in Table 4.7 are summary statistics for locally owned banks. There were 364 observations for locally owned banks which were considered sufficient for use as a basis of the analysis. The relationship between the dependent and the independent variables of the locally owned banks was moderated using bank size and were intervened using deposits and customer loans.

Table 4.7: Summary Statistics of Locally Owned Banks

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness			Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Z – Value	Statistic	Std. Error	Z – Value
Financial Performance	364	0.019	0.374	0.0255	0.02502	7.192	0.128	0.018	92.839	0.255	0.003
Financial restructuring	364	0.013	0.941	0.0716	0.17347	3.471	0.128	0.037	11.776	0.255	0.022
Capital restructuring	364	0.011	0.460	0.1502	0.07268	1.122	0.128	0.114	1.857	0.255	0.137
Operational restructuring	364	0.014	0.403	0.0542	0.04385	3.710	0.128	0.035	20.481	0.255	0.012
Asset restructuring	364	0.010	0.842	0.0986	0.11905	2.785	0.128	0.046	9.772	0.255	0.026
Deposits	364	0.143	0.982	0.6734	0.16772	-1.619	0.128	-0.079	3.322	0.255	0.077
Customer loans	364	0.212	0.991	0.5481	0.16674	-0.624	0.128	-0.205	1.984	0.255	0.129
Size of the bank	364	3.051	5.580	4.0519	0.78044	-1.980	0.128	-0.065	10.006	0.255	0.025
Bank ownership	364	1.00	1.00	1.0000	0.00000	.	.		.	.	

Source: Research Findings

The descriptive statistics indicate variations when the analysis is based on locally owned banks. Locally owned banks are less profitable and have a relatively smaller asset base, inject less capital, but restructure their operations more than foreign owned banks. The results show that local banks provide more for nonperforming loans in the banking sector than foreign banks possibly due the high level of nonperforming loans in the loan books of local banks. Local banks also appear to undertake financial restructuring more than foreign banks possibly because of their limitation in in attracting sufficient deposits, therefore they are forced to borrow so as to have sufficient funds to extend loans to their customers.

Deposits for local banks are below the deposits of the banking sector and so are the customer loans. Surprisingly, local banks are generally larger than their foreign counterparts indicating that they tend to have a bigger asset base. This is possibly explained by the need of local banks to reach to a wide range of clientele located in various parts of the country, therefore requiring them to open many branches including having a broad ATM network. On the other hand most foreign banks are located in major urban centres and their asset base is limited to the premises that they use for carrying out their operations.

The descriptive statistics following separating the locally owned banks and foreign owned banks for analysis show that for locally owned banks the values for financial performance were 2.55% of total assets with a variation of 2.502%. This reveals a performance level of locally owned banks of 2.55% which is lower than the performance levels of the banking sector of 2.75%. The variation of financial performance of local banks of 2.502% is more than the variation of the entire banking sector of 2.4%. This shows more variation of profits than the entire banking sector. The skewness z-value and the kurtosis z-value for financial performance were positive an indication that profitability observations of locally owned banks is skewed to the right and tend to follow a normal distribution.

Financial restructuring of locally owned banks was 7.16% which denotes low debt levels with a standard deviation of 17.347%. This means that debt levels of local commercial banks in Kenya vary significantly. Capital restructuring of banks had a value of 15.02% with a variation of 7.268%. This capital levels is lower than that of the entire banking sector which was 13.9% but with less variation compared to 7.268% of the entire banking sector. Operational restructuring of locally owned banks was 0.0542 with a variation of 0.04385 which is higher than that of the banking sector as a whole of 0.0510 but with more variation banks have more weaknesses in their operations calling for more operational restructuring than the entire banking system in Kenya.

Asset restructuring revealed 9.86% of total loans with a standard deviation of 11.905%. This indicates that local banks restructure their assets more (compared to the value of 8.45% of the entire banking sector) but the variation of asset quality of local banks of 11.905% is less than 11.099% of the banking system in Kenya.   The results also show that the variables of bank restructuring had positive skewness and positive kurtosis. The data observations for bank restructuring are therefore skewed to the right and follow a normal distribution.

 Financial services as measured using deposits had values of 67.34% to total assets which are slightly lower than that of the entire banking sector of 67.56%. The entire banking sector is therefore able to mobilize more deposits than local banks. The variation of deposits to total assets of local banks was 6.772% which was lower than that of the entire banking sector of 16.964%. Customer loans as a proportion of total assets for local banks was 54.8% which was higher than that of the entire banking sector of 51.52%. However the variation of customer loans of 16.674% of local banks lower than the 19.58% of the banking sector as a whole. The implication is that local

banks borrow more and their loans are more variable than those of the banking sector as a whole.

The results show that deposits and customer loans had negative skewness and positive kurtosis. Therefore data on deposits and customer loans are skewed to the left. Additionally the data observations on the two variables that were used as measures of financial services are normally distributed. The value for size of banks was 4.0519 as measured using the natural logarithm of total assets value. This was lower than that of the entire banking sector of 4.0928. The revelation is that locally owned banks are smaller than banks in the Kenya banking sector. The variation in bank size of local banks was 0.7844 which was lower than that of the entire banking sector of 0.83843. Therefore locally owned banks are generally smaller in size compared to banks in the entire banking sector but their sizes vary less than those of the entire banking sector. The results show that size of banks had negative skewness and positive kurtosis. This means that the data observations on bank size are skewed to the left and the data observations on bank size are normally distributed. Bank ownership was local ownership. The bank ownership variables were a minimum of 1, a maximum value of 1, a mean value of 1 and a standard deviation of 1 because the data was nominal data. The results show that all the variables had positive kurtosis while all variables except for the moderating and intervening variables had positive skewness.

The skewness z-value for all the independent variables in the case of locally owned banks is positive meaning that their data is skewed to the right. The skewness z-value of the intervening variables is negative meaning that their data observation is skewed to the left. The skeweness z- value for the moderating variable is negative which imply that the data observation of size is skewed to the left. The implication of the intervening and the moderating variables is that the deposits, customer loans and the

moderating variable of bank size only affect the skewness of the data of locally owned banks. The kurtosis z-value for all the study variables for locally owned banks is positive implying that all the data observations follow a normal distribution in the case of the locally owned banks. The data results indicate that the dependent variable as measured using financial performance is normally distributed. The independent variables as measured using financial restructuring, capital restructuring, operational restructuring and asset restructuring are normally distributed.

Therefore when the intervening variables which are the deposits and customer loans were introduced in the relationship they were found not to affect the normality of the data of the dependent and independent variables in the case of locally owned banks. Moderating the relationship between financial performance and bank restructuring as measured using financial restructuring, capital restructuring, operational restructuring and asset restructuring using size and ownership were found not to affect the normality of the data in the case of locally owned banks. Data on the individual intervening variables and customer loans and that of the moderating variable of size remained skewed to the left. This is an indication that segregating the data for locally owned banks does not affect the skewness of the intervening and moderating variable data observations. The normality of the data observations for the intervening and moderating variables was not affected by segregating data to locally owned banks. Data on deposits, customer loans and size for locally owned banks follow a normal distribution, just in the case of the entire banking sector.

When foreign owned banks were analysed separately, the number of observations were 143. Table 4.8 shows the statistics for foreign owned banks. The table shows that the value for financial performance was 3.24% of total assets with a variation of 2.927%.

Table 4.8: Summary Statistics of Foreign Owned Banks

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness			Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Z - Value	Statistic	Std. Error	Z - Value
Financial Performance	143	0.013	0.104	0.0324	0.02027	0.192	.203	1.057	-0.106	.403	-3.802
Financial restructuring	143	0.012	0.713	0.0385	0.10206	5.494	.203	0.037	32.617	.403	0.012
Capital restructuring	143	0.014	0.351	0.1117	0.06897	-0.018	.203	-11.278	0.438	.403	0.920
Operational restructuring	143	0.011	0.192	0.0428	0.03361	2.429	.203	0.084	7.428	.403	0.054
Asset restructuring	143	0.010	0.754	0.0485	0.07651	5.951	.203	0.034	49.309	.403	0.008
Deposits	143	0.142	0.890	0.6812	0.17490	-2.776	.203	-0.073	8.184	.403	0.049
Customer loans	143	0.172	0.980	0.4312	0.23591	0.339	.203	0.599	-0.320	.403	-1.259
Size of the bank	143	3.241	5.354	4.1967	0.96578	-2.746	.203	-0.074	10.295	.403	0.039
Bank ownership	143	0.000	0.000	0.0000	0.00000	.	.		.	.	

Source: Research Findings

This was higher than the financial performance of the entire banking sector of 2.765%. The variation of financial performance of foreign owned banks of 2.927% was more than that of the entire banking sector of 2.396%. The skewness z-value was positive indicating that the data observation of foreign owned banks is skewed to the right. The kurtosis z-value of -3.802 reveals that the data observations on financial performance of foreign owned banks is not normally distributed.

Financial restructuring of foreign owned banks was 3.85% with a variation of 10.266%. This level of financial restructuring was less than that of the entire banking sector of 6.622%. The variation in financial restructuring of foreign owned banks of 10.206% was less than that of the entire banking sector of 15.726%.

This reveals that foreign owned banks do not restructure their financial structure as much as the entire banking sector and by extension the locally owned banks. Their financial structure also tends to have less variation than that of locally owned banks as well as the entire banking system. Foreign owned banks had a capital restructuring variable of 11.17% with a standard deviation of 6.897%. The capital restructuring variable is lower than that of the entire banking sector of 13.93% with variation of 7.365%. This implies that foreign owned banks do not restructure their capital as much as the entire banking system. The capital levels of local banks however tend to be higher than that of foreign owned banks.

Operational restructuring for foreign owned banks was more than that of the entire banking system but with less variation. Whereas asset restructuring of foreign owned banks was less than that of the entire banking system there was less variation. The results show that the skewness for all the study variables of bank restructuring is positive except for capital restructuring meaning that all their data observations is

skewed to the right except that of capital restructuring whose data observations is skewed to the left.

The kurtosis z-value of all the independent variables are positive meaning that in the case of foreign owned banks the data for financial restructuring, capital restructuring, operational restructuring and asset restructuring is normally distributed.

The mean value for deposits was 0.6812 with a standard deviation of 0.1749 while that of customer loans was 0.4312 with a standard deviation of 0.23951. Deposits of foreign owned banks were 68.12% of total assets with a variation of 17.49%. The deposit levels were higher than those of the entire banking sector of 67.56% but with more variation as indicated by the standard deviation. Customer loans of these banks was 43.12% but had a standard deviation of 23.951%. The loans extended by foreign owned banks was thus less than the loans extended by banks in the sector but were less variable.

The skewness z-value of deposits is negative while customer loans had a skewness z-value which is positive. This means that the data observation of bank deposits is skewed to the left while the data observation for customer loans is skewed to the right. The kurtosis z-value for deposits is positive, an indication that data observations for deposits are normally distributed. However, the data observations for customer loans may not be normally distributed as denoted by the negative kurtosis z-value of -1.259. The value for size of the banks was a mean of 4.1967 with a standard deviation of 0.96578 while the bank ownership variable had a mean and a standard deviation of 0. The skewness for the size of the bank is negative meaning that the data observation is skewed to the left. The results of the study therefore conclude that except for customer loans data, the data observations for all the other study independent

variables are normally distributed. The kurtosis z-value for the dependent variable is negative implying that the data observation is not normally distributed.

The dependent variable which was financial performance was generally higher than that of the banking sector which means that foreign owned banks are more profitable than locally owned banks. The independent variables were financial restructuring, capital restructuring, operational restructuring and asset restructuring. These banks appear to have more deposit levels than local banks thus they rely more on deposits than borrowings. The implication is that foreign owned banks borrow less than locally owned banks possibly because they are able to mobilize more deposits due their higher level of efficiency and profitability. In terms of capital restructuring foreign owned banks tend to inject capital less possibly because they tend to be more profitable and they can thus rely on retained earnings. Foreign banks also tend to restructure their operations less than other banks in the banking sector possibly because they are more profitable and efficient. These banks also tend to restructure their assets less than their local counterparts possibly because they tend to have a higher asset quality.

Deposit levels of foreign banks were found to be higher than those of the banking sector but the customer loans of foreign banks were lower than those of the banking sector. The customer loans of foreign owned banks are lower than those of the banking sector but these banks also tend to have less provisions possibly because of their higher asset quality. The findings are that foreign banks tend to be bigger than the other banks in the banking sector.

In terms of the descriptive statistics the results show that the mean values for financial performance, financial restructuring, capital restructuring, operational restructuring, asset restructuring, deposits, customer loans and bank size were higher for foreign

banks except for ownership whose result was zero which essentially denoted the dummy variable attached to foreign ownership. In terms of the banking sector statistics financial performance was better than the financial performance of the locally owned banks but lower than that of foreign owned banks. This is in line with the fact that foreign owned banks report better financial performance than locally owned banks. Financial restructuring of the banking sector was less than that of the locally owned banks but greater than that of foreign owned banks which means that it is the locally owned banks that majorly undertake financial restructuring.

Capital restructuring, asset restructuring, deposits, customer loans and size of the banks for the banking sector was found to be higher than that of locally owned banks. The same parameters are however higher for foreign owned banks. This indicates that foreign banks tend to inject more capital, restructure their operations less, provide less for their nonperforming loans, tend to attract more deposits and extend larger loans to customers. Foreign owned banks are generally larger than locally owned banks according the findings of this study. The study findings reveal that the majority of commercial banks in Kenya are locally owned.

The mean, the standard deviation, the skewness and kurtosis of the foreign owned banks as shown in Table 4.8 show that the values of financial performance which was the dependent variable was 3.24% with a variation of 2.027%. This variable had a positive skewness of 1.057 and negative kurtosis of -3.802. This means that the data observation for foreign owned banks is skewed to the right. These results also suggest that the financial performance of foreign owned banks may not be normally distributed. In the case of the bank restructuring variables, except capital restructuring which had negative skewness all the other independent variables have positive skewness and positive kurtosis. The negative skewness negative value of capital

restructuring of -11.278 suggest that the data observations of capital restructuring are skewed to the left but since the kurtosis z-value is positive the data observations for capital restructuring is normally distributed. The data observations for financial restructuring, operational restructuring and asset restructuring is normally distributed.

The intervening variables were deposits and customer loans. Deposits had a mean value of 0.6812 with a variation of 0.17490 while customer deposits had a mean value of 0.4312 and a standard deviation of 0.23591. The skewness z-values and kurtosis z-value were estimated for deposits and customer loans. Deposits had a negative skewness of -0.073 and positive kurtosis value of 0.049 while customer loans had a positive skewness of positive 0.599 and a negative kurtosis value of -1.259. This means that the data observations on deposits and customer loans of foreign owned banks may not be normally distributed. Size had negative skewness of -0.074 and positive kurtosis of 0.039. The skewness negative value suggests that the data observation on size is skewed to the left but the data observations is normally distributed.

The implication of the intervening and the moderating variables is that the size of banks do not interfere with the normality of the data observations when the analysis is based on data categorized into local or foreign ownership. Whether banks are owned by locals or whether banks are owned by foreigners, the data observations still follow a normal distribution when moderated by bank size. The study results show that it is not normal for foreign banks to undertake financial restructuring, an indication that these banks rarely raise long term debt possibly because they prefer to raise any additional funds from the owners.

When the intervening variables which are the deposits and customer loans are introduced in the relationship data observations on deposits follow a normal

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distribution but the data on customer loans reveals negative kurtosis. This means that when the relationship between bank restructuring and financial performance is intervened using customer loans the observations of the study variables donot necessarily follow a normal distribution. Moderating the relationship between financial performance and bank restructuring as measured using financial restructuring, capital restructuring, operational restructuring and asset restructuring using size and ownership does not affect the normality of the data. Intervening and moderating the relationship of bank restructuring and financial performance using deposits and customer loans, and size and ownership only affects the normality of the data on capital restructuring and customer loans in the case of foreign owned banks. Therefore the descriptive statistics reveal that it is only in the case of foreign owned banks that the skewness of the data independent variable (in this case the sub-variable capital restructuring) and the normality of the data (financial performance) was affected.

4.8 Financial Performance Panel Data Heteroscedasticity Test

The situation in which the error term is the same across all values of the independent variables in their relationship to the dependent variable is referred to as homoscedasticity. On the other hand, violation of homoscedasticity is known as heteroscedasticity which occurs when the size of the error term is different across values of independent variables. The residuals (the difference between the obtained deviations and the predicted deviation scores) and the variance of the residuals should be the same for all predicted scores (homoscedasticity) (Tabachnick & Fidell, 2007). The results of the Heteroscedasticity tests are shown in figure 4.1, 4.2 and 4.3.

Figure 4.1 Histogram of the Residuals of Financial Performance Data
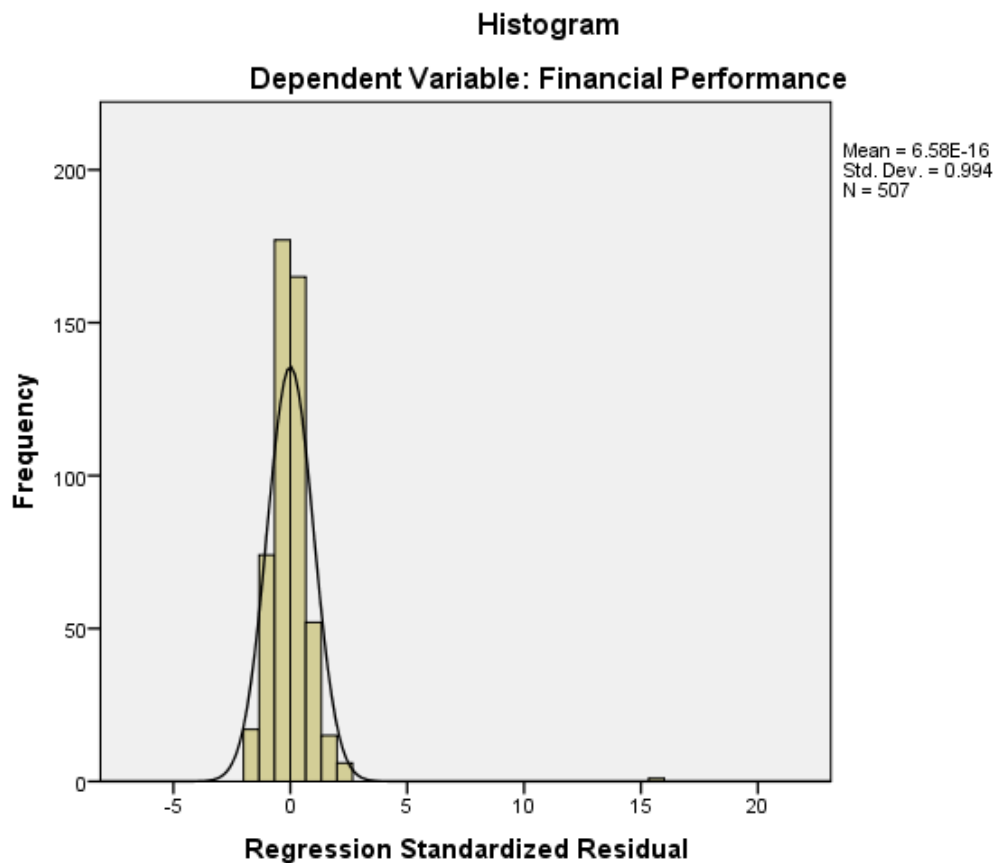
Source: Research Data

A more serious problem associated with heteroscedasticity is the fact that the standard errors are biased. Many statistical programs provide an option of robust standard errors to correct this bias. Transforming the dependent variable using one of the variance stabilizing is another approach for dealing with heteroscedasticity. Homoscedasticity was tested using histograms, scatterplots and the normal P-P plot.

Figure 4.1 which is the histogram shows a normal distribution of the data and no evidence of heteroscedasticity. Figure 4.2 shows that the data can be fitted on a linear function therefore meeting the assumption of linearity. The estimated line of best fit fairly estimates a linear function such as one fitted by a regression equation.

Figure 4.2 Normal P-P Plot of Regression Standardized Residual of Financial Performance Data

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Financial Performance
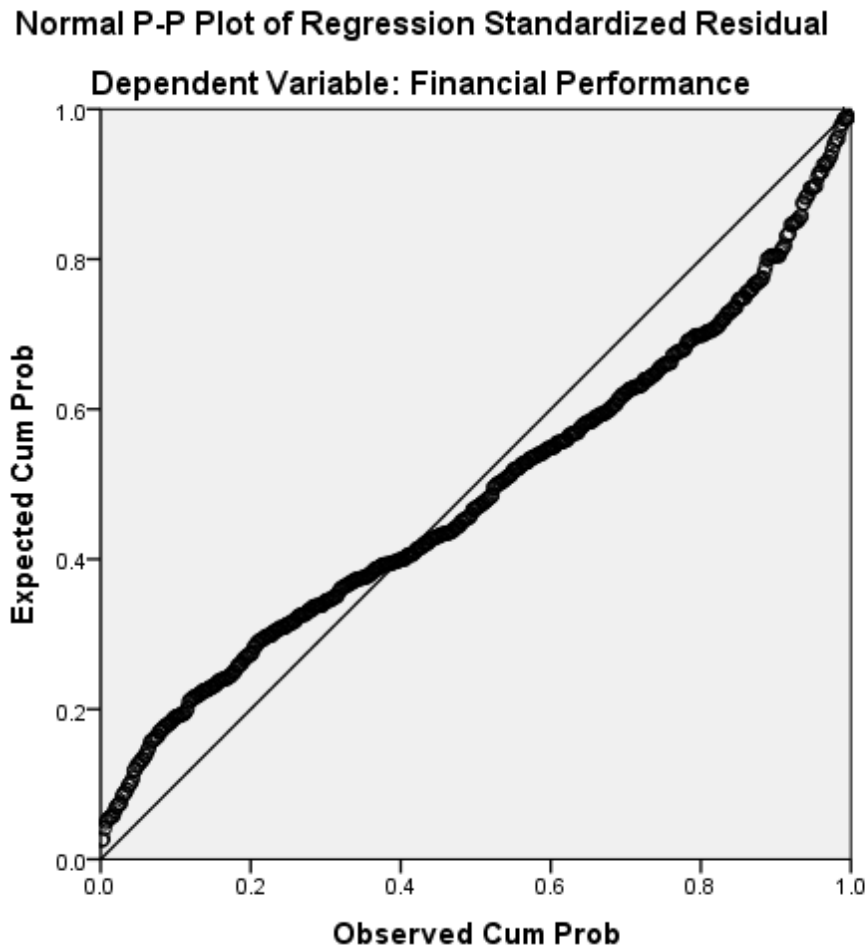
Source: Research Data

The Normal P-P Pot in Figure 4.2 therefore shows that there was no evidence of heteroscedasticity in the financial performance panel data. Residual scatter plots provide a visual examination of the assumption of homscedasticity between the predicted dependent variable scores and the errors of prediction. However the effect of homoscedasticity is a matter of degree increasing as heteroscedasticity increases. Therefore the assumption can be viewed and analyzed with one glance and any violation can be determined quickly and easily. According to Tabachnick & Fidell (2007) a residual scatter plot is a figure that shows one axis for predicted scores and one axis for errors of prediction. Scores will thus be randomly scattered about a

historical horizontal line whereby any systematic pattern or clustering is considered a violation.

Figure 4.3: Scatterplot of the Residuals of Financial Performance Variable
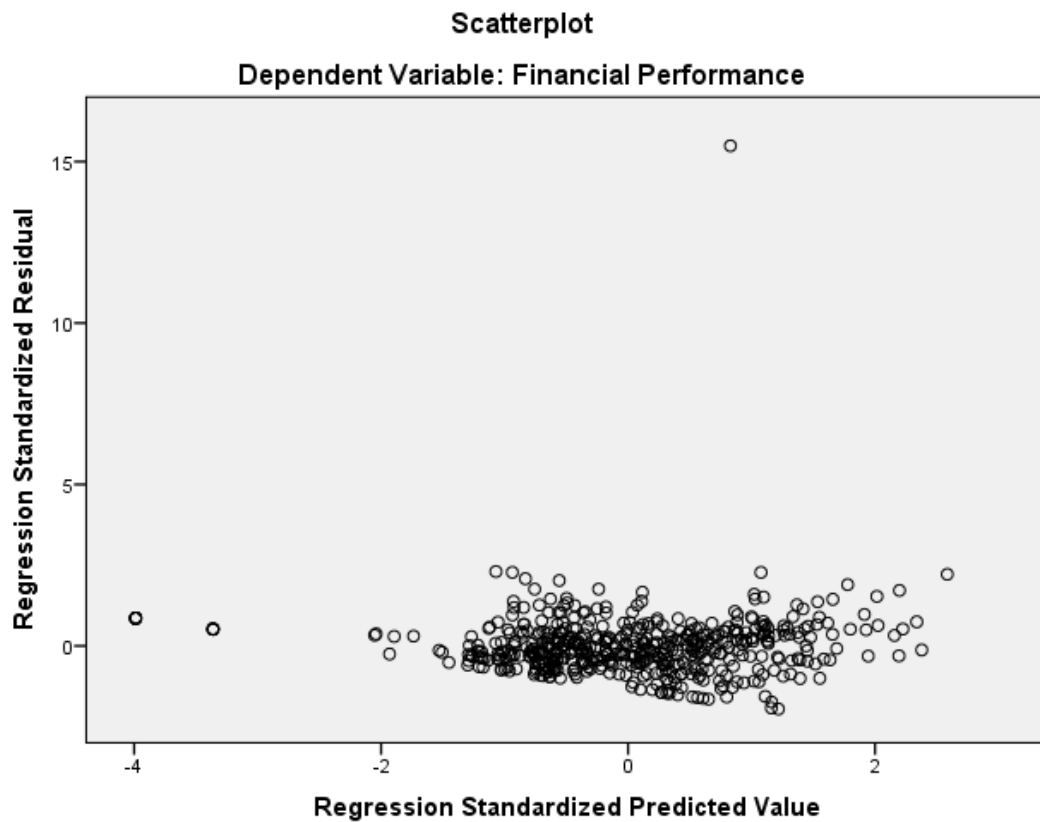
Source: Research Data

Figure 4.3 shows that there was no tendency of the error terms to be systematically clustered horizontally, hence there was no evidence of heteroscedasticity in the data (See Appendix IV).

As shown in figures 4.1, 4.2 and 4.3, testing for homoscedasticity and normality of residuals in the multiple linear regression analysis showed no tendency of the error terms to cluster systematically around the horizontal axis and there was therefore no heteroscedasticity data output given on the relationship between financial performance and the predictor variables under study.

4.9 Tests for Stationarity

A common assumption in many time series techniques is that the data are stationary. A stationary process has the property that the mean, variance and autocorrelation structure do not change over time. If the data is stationery, the trend would reveal a flat looking series, without trend, constant variance over time, a constant autocorrelation structure over time and no periodic fluctuations.

Appendix V reveals that the data for the dependent and the independent variables can be transformed to obtain stationarity series by fitting an estimation of the best fit for each variable. When transformed to a stationary series, the line of best fit can either be horizontal, upward sloping or downward sloping. The graphs show that financial performance, capital restructuring, operational restructuring, asset restructuring and financial services graphs can be transformed to stationary horizontal graphs. Whereas the graphs for financial restructuring can be transformed to an upward sloping smooth running curve, the data for bank size can be transformed to a U-shape stationarity graph. All the graphs which portray volatility of data observations over the time period can all therefore be transformed to stationary data.

4.10 Chapter Summary

This chapter presents descriptive statistics on financial performance, bank restructuring variables, bank characteristics, financial services and a summary of descriptive statistics of banks categorized into locally owned banks or foreign owned banks. The mean of financial performance was low but with significant variation. Bank restructuring as denoted by financial restructuring, capital restructuring, operational restructuring and asset restructuring revealed low means with much variations. Financial services revealed significant means with much variation while bank characteristics showed high means with significant variations.

Descriptive statistics on financial performance, financial restructuring, capital restructuring, operational restructuring and asset restructuring was skewed to the right and was normally distributed. Data observations on deposits, customer loans, bank size and bank ownership was skewed to the left while this data except for bank ownership was normally distributed. Data observations for both locally owned and foreign owned banks were skewed to the right for financial performance, financial restructuring, capital restructuring, operational restructuring and asset restructuring except for capital restructuring in the case of foreign owned banks. The data observations for all the variables in the case of locally owned banks was found to be normally distributed. In the case of foreign owned banks all the data observations except for financial performance and customer loans was normally distributed. Whereas data observations for locally owned banks except for deposits, customer loans and size of banks was skewed to the right, for foreign owned banks except for capital restructuring, deposits, and size of banks was skewed to the right. On testing the assumptions for regression analysis, the tests for normality, mutlicollinearity, heteroscedasticity, and stationarity were met thus justify the use of regression analysis.

CHAPTER FIVE

HYPOTHESIS TESTING AND DISCUSSION OF THE FINDINGS

5.1 Introduction

The effect of bank restructuring, financial services and firm characteristics have on financial performance of commercial banks in Kenya was the subject of investigation in this study. Specifically, the study investigated the effect that financial, capital, operational and asset restructuring have on financial performance as measured using return on assets. The moderating variable for the study was financial services which were represented by bank deposits and customer loans. The intervening variable in this study was firm characteristics and was measured using bank size and bank ownership. This chapter presents data analysis, interpretation and discussion of the research findings. Data presentation is organized based on the specific objectives of the study. Results of inferential statistics are presented with the focus on correlation for testing the association of variables and regression estimates for testing the relationship between the variables. Study hypotheses are also tested in this chapter.

5.2 Inferential Analysis

Inferential statistics was used to test hypotheses and make estimations using sample data. Thus, inferential statistics is used to make inferences from the research data to be able to derive general conclusions. In this study, multicollinearity test was undertaken on the independent variables which were: financial restructuring, capital restructuring, operational restructuring and asset restructuring before being included in the study models. To determine the associations between the dependent and independent variables as well as other control variables correlation analysis was used.

Regression analysis was conducted to determine the relationship between the dependent and independent variables.

5.2.1 Multicollinearity Test

To determine if two or more predictor (independent) variables in the multiple regression model are highly correlated multicollinearity tests were conducted. To check for multicollinearity the study used tolerance and variance inflation factor (VIF) values for the predictor variables. Tolerance indicates the percentage of the variance in the independent variable that cannot be accounted for by the other independent variables while VIF is the percentage of the independent variable that can be accounted for by the other independent variables.

Table 5.1 shows that tolerance values ranged from 0.777 to 0.976 while variance inflation factor ranged between 1.025 and 1.286. This is an indication that there was no multicollinearity reported between the independent variables used in the models of this study, since tolerance values were above 0.1 and VIF below 10.

Table 5.1 Multicollinearity Test

Variables	Multicollinearity Statistics	
	Tolerance	**VIF**
Financial restructuring	.777	1.286
Capital restructuring	.811	1.233
Operational restructuring	.929	1.076
Asset restructuring	.976	1.025

a. Dependent Variable: Financial Performance

Source: Research Findings

5.2.2 Correlation Analysis

Correlation refers to any of a broad class of statistical relationships involving dependence. Almost any functional dependency and the entropy-based mutual information can be estimated using the correlation ratio while total correlation and dual total correlation are capable of detecting even more general dependencies (Croxton, *et al*, 1968). These are sometimes referred to as multi-moment correlation measures, in comparison to those that consider only second moment (pairwise or quadratic) dependence. The strength of a linear relationship between two variables can be estimated using the Pearson correlation coefficient, but its value generally does not completely characterize their relationship (Mahdavi, 2013). To measure how well the regression line represents the data the coefficient of determination was estimated. The regression would be able to explain all of the variations if the line passes exactly through every point on the scatter plot.

Table 5.2 presents the effect of Pearson correlation that independent variables which in this study were financial restructuring, capital restructuring, operational restructuring and asset restructuring; the moderating variables represented by size and ownership as well as intervening variables that were represented by deposits and customer loans have on financial performance of commercial banks in Kenya. The results indicate that financial restructuring provided a positive association by 10.6%. The findings are in agreement with that of Osoro (2014) which revealed that there was a positive association between financial restructuring and financial performance among the 11 commercial banks listed at NSE between the year 2008 and 2013.

Table 5.2 Correlation Analysis of Bank Restructuring and Financial Performance

		Financial Performance	Financial restructuring	Capital restructuring	Operational restructuring	Asset restructuring	Deposits	Customer loans	Bank Size	Bank ownership
Financial Performance	Pearson Correlation	1								
	Sig. (2-tailed)									
	N	507								
Financial restructuring	Pearson Correlation	.106*	1							
	Sig. (2-tailed)	.017								
	N	507	507							
Capital restructuring	Pearson Correlation	.272**	.054	1						
	Sig. (2-tailed)	.000	.224							
	N	507	507	507						
Operational restructuring	Pearson Correlation	-.022	-.009	.207**	1					
	Sig. (2-tailed)	.620	.840	.000						
	N	507	507	507	507					
Asset restructuring	Pearson Correlation	-.060	-.068	.309**	.166**	1				
	Sig. (2-tailed)	.180	.127	.000	.000					
	N	507	507	507	507	507				
Deposits	Pearson Correlation	.170**	-.029	-.123**	.090*	-.267**	1			
	Sig. (2-tailed)	.000	.517	.006	.044	.000				
	N	507	507	507	507	507	507			
Customer loans	Pearson Correlation	.051	.091*	.228**	.280**	-.103*	.336**	1		
	Sig. (2-tailed)	.253	.042	.000	.000	.020	.000			
	N	507	507	507	507	507	507	507		
Bank Size	Pearson Correlation	.339**	.052	.063	.100*	-.104*	.565**	.384**	1	
	Sig. (2-tailed)	.000	.241	.158	.024	.020	.000	.000		
	N	507	507	507	507	507	507	507	507	
Bank ownership	Pearson Correlation	-.131**	.095*	.235**	.124**	.203**	-.021	.269**	-.078	1
	Sig. (2-tailed)	.003	.033	.000	.005	.000	.641	.000	.080	
	N	507	507	507	507	507	507	507	507	507

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Research Findings

An increase in capital restructuring has the probability of increasing the financial performance by 27.2%. Bank deposit has a positive association of 0.170 on financial performance of a commercial bank. In addition, results on size of the bank revealed a positive association with financial performance where it can be interpreted that an increase in bank size in form of assets, is associated with 33.9% increase in financial performance of a bank. On contrary, the findings further indicate that bank ownership is negatively associated with the financial performance of banks. The results indicate that change in shareholding of commercial banks in Kenya might not affect their financial performance.

5.2.3 Regression Analysis

This section focuses on financial performance and the study variables that influence financial performance. The coefficient of determination, R^2 which was used in this study is a useful tool because it gives the proportion of the fluctuation (variation) of one variable that is predictable from the other variable. This measure allowed the study to determine how certain variables can be used in making predictions from a certain model used in this investigation. The coefficient of determination is the ratio of the explained variation to the total variation. The coefficient of determination is such that $0 \leq r^2 \leq 1$, and denotes the strength of the linear association between X and Y. The higher the value of R^2 the higher the explanatory power of the regression model. In interpreting the results of multiple regression analysis, the R squared was used to estimate how well the model fitted the data (Anderson & Darling, 1954). This research study sought to determine whether the independent variables (financial restructuring, capital restructuring, operational restructuring and asset restructuring), moderating variables (bank size and ownership) and intervening variables (deposits

and customer loans) have an influence on the dependent variable (financial performance) of commercial banks in Kenya.

5.2.3.1 The Effects of Bank Restructuring on Financial Performance

The first objective of this study was to estimate the relationship between bank restructuring and financial performance of commercial banks in Kenya. In this study, the variables which were used as aspects of bank restructuring were; financial restructuring, capital restructuring, operational restructuring, and asset restructuring. Table 5.3 illustrates the regression results of these construct variables and the dependent variable which is the financial performance. The model summary of a linear relationship between financial performance and bank restructuring variables provided an estimated adjusted R^2 value of 0.100. This means that a combination of financial restructuring, capital restructuring, operational restructuring and asset restructuring can account for 10.0% of the variations in financial performance of commercial banks in Kenya. This could indicate that there exist other factors not included in the study which explains the remaining 89.0% of variation in the financial performance. Therefore, this could imply that the presence of the other factors would improve the predictive model of bank restructuring on financial performance.

The findings are in line with Rose (1994) who found out that the banks that restructured their operations reported positive and consistent profits. Osoro (2014) also found that there exists an insignificant positive effect of financial restructuring on financial performance of commercial banks quoted in Kenya as the estimated coefficient of determination was 26.7% which is higher than the one estimated by this study. The results of this study indicate that including more aspects of restructuring and increasing the units of analysis reduces the explanatory power of the study variables.

The regression estimates also provided an ANOVA for the research model based on the following null hypothesis that was tested:

H1: The relationship between bank restructuring and financial performance of commercial banks in Kenya is not significant.

The ANOVA of regression model provided the regression sum square of 0.031 and a model residual's of 0.260 with a mean square of 0.008 for the regression and 0.001 for the residuals. The Analysis of Variance (ANOVA) results produced an *F*-significance value 15.020 and a $p < 0.000$. This is an indication that the probability of this model giving false prediction is 0.0%. According to Rumsey (2011) p – value is a number between 0 and 1 and interpreted as follows: a small p – value (typically $\leq$ 0.05) indicates strong evidence against the null hypothesis, thus under such circumstances, we reject the null hypothesis; a large p – value (> 0.05) indicates weak evidence against the null hypothesis, so we fail to reject the null hypothesis; and p-values very close to the cut off (0.05) are considered to be marginal, and thus either accept or reject the null hypothesis. Therefore, this study's hypothesis that there is no significant relationship between bank restructuring and financial performance of commercial banks in Kenya is rejected.

The regression model further gives the results of coefficients of independent variables used in the model which indicate that these variables have variance relationship to the dependent variable. The model provided a constant value of 0.016 (t – value = 7.010) with a p – value of 0.000. Capital restructuring and asset restructuring were found to be major determinants of financial performance. Capital restructuring had a significant positive coefficient of 0.106 with a t – value of 7.223 and a p – value of 0.000, while asset restructuring had a significant negative coefficient. Asset restructuring however has a significant negative effect on the financial performance of

banks as denoted by the coefficient of -3.1% (t – value = - 3.224) and p – value of

0.001 respectively.

Table 5.3 The Effects of Bank Restructuring on Financial Performance

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	0.327[a]	0.107	0.100	0.02274

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	0.031	4	0.008	15.020	0.000[b]
	Residual	0.260	502	0.001		
	Total	0.291	506			

Coefficients[a]								
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**95.0% Confidence Interval for B**	
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1	(Constant)	0.016	0.002		7.010	0.000	0.012	0.021
	Financial restructuring	0.012	0.006	0.078	1.828	0.068	-0.001	0.025
	Capital restructuring	0.106	0.015	0.326	7.223	0.000	0.077	0.135
	Operational restructuring	-0.037	0.025	-0.065	-1.493	0.136	-0.087	0.012
	Asset restructuring	-0.031	0.010	-0.144	-3.224	0.001	-0.050	-0.012

a. Dependent Variable: Financial Performance

Source: Research Findings

Additionally, financial restructuring did not have a significant influence on financial

performance of commercial banks. An increase in financial restructuring causes an

increment in financial performance by 1.2%, (t – value = *1.828*) and p – value of

0.068. Capital restructuring increases financial performance by 10.6%, (t – value =

7.223) and p – value of 0.000. The effect of capital restructuring on financial

performance is significant. On the other hand, operational restructuring did not have significant influence on the financial performance of commercial banks in Kenya since they had coefficient values of -3.7% (t – value = -1.493) and p – value of 0.136. Therefore restructuring operations of commercial banks reduces profits by 3.7%.

The study used the regression model below to test hypothesis one of which the dependent variable was profitability and was measured using Return on Assets (ROA).

$$ROA_{it} = \acute{\alpha}_{r11} + \beta_{rf1} FR_{rit} + \beta_{rc1} CR_{rit} + \beta_{ro1} OR_{rit} + \beta_{ra1} AR_{rit} + \varepsilon_{r11}$$

The resulting model is given by;

$$ROA_{it} = 0.016 + 0.012FR + 0.106CR - 0.037OR - 0.031AR$$

The output of regression model arising from the data analysis presented in Table 5.3 reveal new predictor model indicated as follows after taking into account the significance levels.

$$ROA_{it} = 0.016 + 0.106CR - 0.031AR$$

From this model output, only capital restructuring and asset restructuring are significant in influencing finance performance of commercial banks in Kenya in the absence of the mediating and moderation effects.

The summary of the findings of the sub-hypotheses as analysed and presented in Table 5.4 is therefore as follows;

Table 5.4 Summary of Results of Hypothesis Testing Relating to Objective One

OBJECTIVE	HYPOTHESIS	SUB HYPOTHESES	RESULT	TABLE	CONCLUSION/ INTERPRETATION
To determine the effect of bank restructuring on financial performance of commercial banks in Kenya	The relationship between bank restructuring and financial performance of commercial banks in Kenya is not significant	The relationship between financial restructuring and financial performance of commercial banks in Kenya is not significant	Fail to reject	5.3	The relationship between financial restructuring and financial performance of commercial banks in Kenya is not significant. (t=1.828, p>0.05)
		The relationship between capital restructuring and financial performance of commercial banks in Kenya is not significant	reject	5.3	The relationship between capital restructuring and financial performance of commercial banks in Kenya is not significant. (t=7.223, p<0.05)
		The relationship between operational restructuring and financial performance of commercial banks in Kenya is not significant	Fail to reject	5.3	The relationship between operational restructuring and financial performance of commercial banks in Kenya is not significant. (t= 1.493, p>0.05)
		The relationship between asset restructuring and financial performance of commercial banks in Kenya is not significant	Reject	5.3	The relationship between asset restructuring and financial performance of commercial banks in Kenya is not significant. (t=-3.224, p<0.05)

Source: Author, 2017

5.2.3.2 The Effects of Bank Size and Ownership on the Relationship Between Bank Restructuring on Financial Performance

The second objective of this study was to determine whether there is a moderating effect of size and ownership on the relationship between bank restructuring and profitability. The study resolved to test the effect of each moderating variable separately before estimating their overall effect on the influence of bank restructuring and financial performance of commercial banks in Kenya. Table 5.5 portrays the effectiveness of the model in measuring the influence of size. The coefficient of determination (R Square) of 0.257 indicates that the financial performance in the regression model can be explained by 25.7.0% of the variations in size, operational restructuring, capital restructuring, asset restructuring, and financial restructuring of commercial banks in Kenya. This is an indication that the size of commercial banks is an important moderator of the relationship between bank restructuring and financial performance and is therefore an important factor in influencing banks profitability.

H2: The moderating effect of firm characteristics on the relationship between bank restructuring and financial performance of commercial banks in Kenya is not significant

The test of this hypothesis was based on the following model:

$$ROA_{it} = \alpha_{r22} + \beta_{rf22}FR_{rit} + \beta_{rc22}CR_{rit} + \beta_{ro22}OR_{rit} + \beta_{ra22}AR_{rit} + \beta_{rz22}Sz_{rit} +$$

$$\beta_{rfz}(FR_{fit}SZ_{fit}) + \beta_{rcz}(CR_{fit}SZ_{fit}) + \beta_{rom}(OR_{fit}SZ_{fit}) + \beta_{raz}(AR_{fit}SZ_{fit}) +$$

$$\varepsilon_{r22} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots.2$$

The ANOVA results indicate that the regression had a sum square of 0.079 and a model residual's of 0.212 with a mean square of 0.009 for the regression and 0.000 for the residuals. The ANOVA produced a F-statistic of 20.453 and a p – value of 0.000. From the results given, it is evident that size of the bank alone is not significant in moderating the effect of bank restructuring and financial performance. All the

variables used in this model except operational restructuring and the moderation of capital using size were found not to be significant.

Table 5.5 The Effects of Size, Bank Restructuring on Financial Performance

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	0.520[a]	0.270	0.257	0.02066

ANOVA[a]						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	0.079	9	0.009	20.453	0.000[b]
	Residual	0.212	497	0.000		
	Total	0.291	506			

Coefficients[a]								
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**95.0% Confidence Interval for B**	
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1	(Constant)	0.003	0.006		0.515	0.607	-0.009	0.015
	Financial restructuring	-0.069	0.062	-0.453	-1.118	0.264	-0.190	0.052
	Capital restructuring	-0.135	0.076	-0.416	-1.779	0.076	-0.285	0.014
	Operational restructuring	-0.302	0.144	-0.523	-2.101	0.036	-0.584	-0.020
	Asset restructuring	0.000	0.012	-0.001	-0.020	0.984	-0.024	0.023
	Bank Size	0.002	0.002	0.060	1.088	0.277	-0.001	0.005
	FR*SZ	0.020	0.015	0.526	1.300	0.194	-0.010	0.050
	CR*SZ	0.066	0.020	0.777	3.341	0.001	0.027	0.105
	OR*SZ	0.063	0.036	0.442	1.739	0.083	-0.008	0.135
	AR*SZ	-0.002	0.002	-0.046	-0.953	0.341	-0.005	0.002

a. Dependent Variable: Financial Performance

Source: Research Findings

At a confidence level of significance of 0.05, operational restructuring provided a significant negative effect on profitability of the commercial banks in Kenya with a coefficient value of -30.2 % ($t = 2.101$) and a strong p – value of 0.036. Capital and size of banks combined had a significant positive coefficient value of 6.6% (t = 3.341) and a p – value of 0.001.

Financial restructuring on the other hand did not have a significant effect on financial performance with a coefficient value of -6.9% ($t = 1.118$) and a p – value of 0.264. Capital restructuring on its own did not appear to have a significant effect on financial performance with a coefficient of -13.5% (t = 1.779) and a p – value of 0.076. However when capital restructuring was moderated by size (CR*SZ) the interaction between capital restructuring and size reveals a significant positive effect. Asset restructuring also had an insignificant effect on financial performance as indicated by the coefficient of 0.00% (t = 0.020) and a p – value of 0.984.

Moderating the relationship between bank restructuring and financial performance using size shows that it is only interaction of capital restructuring and bank size which is significant with a positive coefficient value of 6.6% (t = 3.341) and a p – value of 0.001. Bank size alone did not appear to have a significant effect on the relationship as denoted by a coefficient value of 0.2% ($t = 1.088$) and a p – value of 0.277. After moderation of the relationship between bank restructuring and financial performance using size financial restructuring, operational restructuring and asset restructuring did not have a significant effect on financial performance. When bank restructuring variables were interacted with bank size the findings are that only capital restructuring had an interaction is significant. At the confidence of 0.05, the interaction effect of financial restructuring and size was not significant as shown by the coefficient of coefficients of 2.0% (t = 1.300) and a p – value of 0.194, the interaction of operational restructuring and bank size was not significant 6.3% (t = 1.739) and a p – value of

0.083 and the interaction of asset restructuring and bank size was not significant because the coefficient was -0.2% (t = 0.953) with a p – value of 0.341 respectively.

The resulting output model was as stated below;

ROA = 0.003 - 0.069FR - 0.135CR - 0.302OR + 0.002SZ + 0.02FRSZ + 0.066CRSZ + 0.063ORSZ – 0.002ARSZ

After taking into account the significant variables, the model is simplified as follows.

ROA =   0.066CRSZ - 0.302OR

However if the confidence level was to be raised to 0.10, then capital restructuring and interaction between bank size and operational restructuring would also become significant. Interaction of asset restructuring and bank size would not however not be significant at 0.05 level neither would it be significant at 0.10 level.

At 0.10 confidence level, the resulting model summarizing the significant variables would be;

ROA = 0.066CR*SZ + 0.063OR*SZ – 0.135CR – 0.302OR

This therefore implies that operational restructuring and bank size are significant variables which if managed well can influence the profitability of commercial banks in Kenya. However bank size has to be managed together with bank capital to realize an increase in bank profitability. On the other hand, financial restructuring, capital restructuring and operational restructuring were found to have the ability of reducing the profitability of the banks. Financial restructuring focuses on the borrowing levels of banks which increases costs in form of interest expense. Additionally, operational restructuring is usually accompanied by increasing operational costs which reduces the profits of a bank. Asset restructuring calls for providing for nonperforming loans which is an expense and reduces bank profits. The results of moderation of the relationship between bank restructuring and financial performance using size as displayed in Table 5.6 are summarized by the following sub-hypotheses;

Table 5.6 Summary of Results of Hypothesis Testing Relating to Objective Two

OBJECTIVE	HYPOTHESIS	SUB HYPOTHESES	RESULT	TABLE	CONCLUSION/ INTERPRETATION
To determine the effect of firm characteristics on the relationship between bank restructuring on financial performance of commercial banks in Kenya	The relationship between bank restructuring and financial performance is not moderated by firm characteristics	The relationship between financial restructuring and financial performance of commercial banks in Kenya is not moderated by size of banks	Fail to reject	5.5	The relationship between financial restructuring and financial performance of commercial banks in Kenya is not moderated by size. (t=1.118, p>0.05)
		The relationship between capital restructuring and financial performance of commercial banks in Kenya is not moderated by size	Fail to reject	5.5	The relationship between capital restructuring and financial performance of commercial banks in Kenya is not moderated by size. (t=-1.779, p>0.05)
		The relationship between operational restructuring and financial performance of commercial banks in Kenya is not moderated by size	Reject	5.5	The relationship between operational restructuring and financial performance of commercial banks in Kenya is moderated by size. (t= 2.101, p<0.05)
		The relationship between asset restructuring and financial performance of commercial banks in Kenya is not moderated by size	Fail to reject	5.5	The relationship between asset restructuring and financial performance of commercial banks in Kenya is not moderated by size (t=0.020, p>0.05)

Source: Author, 2017

The data on ownership is nominal data with a score of 1 for locally owned banks and a score of 0 for foreign owned banks. This necessitated the analysis of locally owned banks separately from that of foreign owned banks to enable bring out the aspect of ownership as a moderating variable. The effect of bank restructuring on financial performance as moderated by ownership was achieved by running two regression models. Firstly a regression model was estimated for locally owned banks

The findings of the study in the case of locally owned banks is displayed in Table 5.7. The adjusted R square was estimated at 0.142. The revelation is that financial restructuring, capital restructuring, operational restructuring, and asset restructuring can explain 0.142 of the financial performance of locally owned banks. This means that the independent variables are capable of explaining 14.2% of the dependent variable in the case of the locally owned banks. Analyzing the effect of bank restructuring on financial performance of locally owned banks reveals that all the bank restructuring variables are significant.

The coefficients, the t-values and the p-values reveal that capital restructuring and financial restructuring had the highest positive significant effect in influencing profitability as they had coefficients of 12.5% (t = 7.154) and a p –value of 0.000 and 2.0% (t = 2.892) and a p – value of 0.004 respectively. Also operational restructuring had a significant negative effect on bank profits as it had a coefficient of -6.2% (t = 2.176) and a p – value of 0.030. Asset restructuring was also found to be significant in negatively influencing the financial performance of locally owned banks in Kenya as it had a coefficient of -2.6% (t = 2.434) and a p – value of 0.015.

Table 5.7: The Moderating Effect of Ownership on Bank Restructuring and Financial Performance of Locally Owned Banks

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.389[a]	.151	.142	.02318

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	.034	4	.009	15.977	.000[b]
	Residual	.193	359	.001		
	Total	.227	363			

Coefficients[a]								
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**95.0% Confidence Interval for B**	
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1	(Constant)	.011	.003		3.642	.000	.005	.017
	Financial restructuring	.020	.007	.141	2.892	.004	.007	.034
	Capital restructuring	.125	.017	.364	7.154	.000	.091	.160
	Operational restructuring	-.062	.028	-.108	-2.176	.030	-.117	-.006
	Asset restructuring	-.026	.011	-.123	-2.434	.015	-.047	-.005
a. Dependent Variable: Financial Performance								

Source: Research Findings

The model for the this study was stated as follows;

$$ROA_{it} = \alpha_{r22} + \beta_{rf22}FR_{rit} + \beta_{rc22}CR_{rit} + \beta_{ro22}OR_{rit} + \beta_{ra22}AR_{rit} + \varepsilon_{r22}$$

The model output for the locally owned banks was as follows;

$$ROA = -0.011 + 0.020FR + 0.125CR - 0.062OR - 0.026AR$$

All the variables in the model were found to be significant, therefore it was not necessary to restate the model.

A second regression model was estimated for foreign owned banks as shown in Table 5.8. In this case the dependent variable was financial performance while the independent variables were financial restructuring, capital restructuring, operational restructuring and asset restructuring as moderated by bank size. The adjusted R square was estimated at 0.137. The regression model reveals that bank restructuring has the ability of influencing the variability of profits of banks by 13.7% in the case of foreign owned banks.

The resulting model is stated as follows;

$ROA = 0.018 - 0.034FR + 0.106CR + 0.125OR - 0.038AR$

The coefficients reveal that financial restructuring, capital restructuring and operational restructuring are significant in influencing the financial performance of foreign owned banks when moderated by ownership. This is revealed by the coefficients of -3.4% (t = 2.134) and a p – value of 0.035, coefficient of 10.6% (t = 4.085) and a p – value of 0.000, and a coefficient of -12.5% (t = 2.510) and a p – value of 0.013 respectively. However only asset restructuring was found not to have a significant effect on profitability of banks as denoted by the coefficient of -3.8% (t = 1.585) and a p –value of 0.115 when the relationship was moderated using ownership.

The output model of the significant variables is stated as follows;

$ROA = 0.018 - 0.034FR + 0.106CR + 0.125OR$

Table 5.8: The Moderating Effect of Ownership on Bank Restructuring and Financial Performance of Foreign Owned Banks

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	0.401[a]	0.161	0.137	0.01884

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	0.009	4	0.002	6.619	0.000[b]
	Residual	0.049	138	0.000		
	Total	0.058	142			

Coefficients[a]								
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**95.0% Confidence Interval for B**	
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1	(Constant)	0.018	0.003		5.384	0.000	0.012	0.025
	Financial restructuring	-0.034	0.016	-0.171	-2.134	0.035	-0.065	-0.002
	Capital restructuring	0.106	0.026	0.360	4.085	0.000	0.055	0.157
	Operational restructuring	0.125	0.050	0.208	2.510	0.013	0.027	0.224
	Asset restructuring	-0.038	0.024	-0.144	-1.585	0.115	-0.086	0.009
a. Dependent Variable: Financial Performance								

Source: Research Findings

5.2.3.3 The Effects of Financial Services on the Relationship Between Bank Restructuring and Financial Performance

The third objective was to establish the intervening effects of financial services variables on the relationship between bank restructuring and financial performance. This was done by use of three models where the intervening variables were tested

differently, thereafter combining the intervention of the two variables (deposits and customer loans) was estimated. The first model was used to test the mediating effect of bank deposits on the relationship between the bank restructuring variables and financial performance of commercial banks in Kenya. The second model was used to test the effect of customer loans on the relationship of independent and dependent variables. In addition the mediation effect of both variables was estimated to establish their influence of the composite value (financial services) on the relationship between the independent variables and profitability of commercial banks which operated in Kenya during the period 2002 to 2014.

The marginal effect of the summary model with the coefficient of determination of mediation effect of construct bank deposits shown in Table 5.9, indicate that the adjusted $R^2 = 0.08.9$. The results show that the independent variables used in this model can explain 8.9% of the bank deposits. All the independent variables were used to establish the influence of deposits because of the importance of branches, ATMs, and other operating activities in influencing operational restructuring and its associated costs.

When many customers are able to access banks through the many branches which promise a wide geographical coverage, and ATMs and other innovations such as agency banking the customers are expected to influence the deposit levels. The more the branches, the more the deposits a bank is likely to mobilize. Ignoring operational restructuring although not found to be significant in the first objective would be quite misleading due to the importance of operational restructuring in mobilizing deposits.

The results on coefficients show that there exists a strong positive relationship between the operational restructuring and bank deposits. This is reflected by the positive regression coefficient of 0.607 (t – value of 3.401) and a p – value of 0.001.

This means that operational restructuring contributes 60.7% of bank deposits. Asset restructuring has a significant negative effect on deposits as indicated by the coefficient of -0.419 (t = 6.084) and a p – value of 0.000. Likewise, this could mean that an increase in the ratio of operational restructuring tend to increase the level of deposits by 60.7% while restructuring assets reduces bank deposits by 41.9%.

Financial restructuring was not found to be significant in influencing deposits of banks as denoted by the coefficient of -0.046 (t = 0.997) and a p – value of 0.319. The results show that financial restructuring has the ability of reducing bank financial performance by 4.6% though insignificantly. Capital restructuring had a coefficient of -0.152 (t = 1.457) and a p –value of 0.146 which reflects an effect which is not significant. The findings reveal that restructuring assets of banks reduces profits insignificantly by 15.2%. This means that the debt ratio of banks is not important in influencing bank deposits of commercial banks in Kenya. The implication is that when the deposits of a particular bank decrease, banks should address weaknesses in the operations such as branches and ATMs to boost the deposit level.

This study included all the independent variables when testing for intervention, the argument being that the variables which were not found to be significant in the absence of the moderating and intervening variables could become significant because of the effect of moderation and mediation. In particular operational restructuring has a lot of influence on customer deposits and customer loans as was proved in this study.

The model of bank deposits is first stated as follows;

$$DP_{it} = \acute{\alpha}_{dp} + \beta_{df} FR_{it} + \beta_{dc} CR_{it} + \beta_{do} OR_{it} + \beta_{da} AR_{it} + \varepsilon_{dp}$$

$$DP = 0.704 - 0.046FR - 0.152CR + 0.607OR - 0.419AR$$

Table 5.9: The Effects of Bank Restructuring on Bank Deposits

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	0.310[a]	0.096	0.089	0.16194

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	1.396	4	0.349	13.311	0.000[b]
	Residual	13.165	502	0.026		
	Total	14.561	506			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1	(Constant)	0.704	0.017		42.012	0.000	0.671	0.737
	Financial restructuring	-0.046	0.046	-0.043	-0.997	0.319	-0.136	0.045
	Capital restructuring	-0.152	0.105	-0.066	-1.457	0.146	-0.358	0.053
	Operational restructuring	0.607	0.178	0.148	3.401	0.001	0.256	0.957
	Asset restructuring	-0.419	0.069	-0.274	-6.084	0.000	-0.554	-0.284

a. Dependent Variable: Deposits

Source: Research Findings

After taking into account the significance of the variables in the model as indicated by

the p – values, the resulting model of deposits is as follows:

DP = 0.704 + 0.607OR – 0.419AR

When deposits are used to intervene on bank restructuring and financial performance

financial restructuring, capital restructuring, operational restructuring, asset

restructuring and deposits tend to explain 13.4% of financial performance. This means

that including the intervening variable of bank deposits on the relationship between bank restructuring (financial restructuring, capital restructuring, operational restructuring and asset restructuring) enhances the significance of the predictor variables in determining profits of bank. The intervention using deposits therefore increases the explanatory power of the independent variables from 10.0% to 13.4%. The findings reveal that the variables that are found to be significant are capital restructuring and customer deposits with a coefficient of 11.0% (t = 7.644, and a p – value of 0.000) and the coefficient of 2.8% (t = 4.549, and a p – value of 0.000) respectively. The revelation is that capital restructuring increases bank profitability by 11.0%. This means that capital injection in banks can be used to boost profit margins of commercial banks.

Additionally, when intervened by deposits, there exist a significant positive relationship between the financial restructuring and financial performance of commercial banks in Kenya as observed in the coefficient of 0.013 ($t = 2.064$) with a $p =$ value of 0.040. This means that an increase in financial restructuring tend to increase profit margin of a commercial bank by 1.3%. With respect to operational restructuring, when mediated by bank deposits gives a significant but negative effect on profitability of commercial banks in Kenya as indicated by its coefficient of -0.054 (t – value of 2.188) with p value of 0.029.

This means that an increase in operational restructuring like number of branches, ATM network or emphasize on agency banking and mobile banking transactions as well as other aspects of product, process or institutional innovations, tend to decrease the banks' financial performance by a margin of 5.4%. This could be because of the costs associated with financial innovations. Intervention on the relationship between bank restructuring and financial performance using deposits finds that asset

restructuring has a negative but significant effect with a coefficient of -0.019 (t = 1.979) and a p – value of 0.048; financial restructuring was found to have a significant positive effect on profitability as portrayed by the coefficient of 0.013 (t = 2.064) and a p – value of 0.040.

Table 5.10: The Effects of Bank Deposits and Bank Restructuring on Financial Performance

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	0.377[a]	0.142	0.134	0.02230

ANOVA[a]						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	0.041	5	0.008	16.627	0.000[b]
	Residual	0.249	501	0.000		
	Total	0.291	506			

Coefficients[a]								
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**95.0% Confidence Interval for B**	
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1	(Constant)	-0.003	0.005		-0.651	0.515	-0.013	0.006
	Financial restructuring	0.013	0.006	0.086	2.064	0.040	0.001	0.026
	Capital restructuring	0.110	0.014	0.339	7.644	0.000	0.082	0.139
	Operational restructuring	-0.054	0.025	-0.094	-2.188	0.029	-0.103	-0.006
	Asset restructuring	-0.019	0.010	-0.090	-1.979	0.048	-0.039	0.000
	Deposits	0.028	0.006	0.198	4.549	0.000	0.016	0.040

a. Dependent Variable: Financial Performance

Source: Research Findings

Therefore deposits have a positive mediating effect on the relationship between bank restructuring and financial performance. This can be justified by the presence of positive coefficient of 0.028 with a $t =$ value of 4.549 and $p -$ value of 0.000. On the contrary, despite being mediated by deposits, asset restructuring seem to have significant negative influence on banks' profitability. Without the intervening effect of deposits only capital restructuring and asset restructuring were found to be significant.

The resulting model in view of the ensuing discussion is as follows;

$$ROA = -0.003 + 0.013FR + 0.110CR - 0.054OR - 0.019AR + 0.028DP$$

The resulting model shows that it is only the constant term that was not significant as indicated by the p –values of the study variables. The final model is therefore;

$$ROA = 0.013FR + 0.110CR - 0.054OR - 0.019AR + 0.028DP$$

The findings emphasizes that when the relationship between bank restructuring and financial performance is intervened by deposits, all the study variables including the intervening variable should be properly managed to maximize profitability of the banks.

The influence of bank restructuring (financial restructuring, capital restructuring, operational restructuring and asset restructuring) on customer loans is estimated before incorporating the customer loans in the model as the intervening variable. The estimated adjusted R square was 0.150. The model results show that financial restructuring, capital restructuring, operational restructuring and asset restructuring explains 0.150 of customer loans. Therefore 15.0% of customer loans in the Kenya banking sector is explained by bank restructuring. This implies that restructuring finances, capital, operations and bank assets (nonperforming loans) has an influence

on customer loans as this leads to an increase in customer loans by 15.0%. The independent variables therefore have a better explanatory power of customer loans (15.0%) compared to that of deposits (8.9%).

The significant variables that influence customer loans are, capital restructuring with a coefficient of 0.626 (t = 5.368) and p – value of 0.000 and operational restructuring with a coefficient of 1.265 (t = 6.364) and a p – value of 0.000 which both had a significant positive effect on customer loans. The findings reveal that an increase in capital restructuring increases customer loans by 62.6% while an increase in operational restructuring increases customer loans by 126.5%. Leaving out operational restructuring from the model of the intervening variable would have meant omitting an important independent variable which after inclusion was found to significantly influence deposits. Asset restructuring was found to have a significant negative effect on customer loans as shown by the coefficient of -0.381 (t = -4.960) and a p – value of 0.000. This essentially means that asset restructuring reduces customer loans by 38.1%.

The initial model was as stated below:

$$CL_{it} = \acute{\alpha}_{cl} + \beta_{cf} FR_{it} + \beta_{cc} CR_{it} + \beta_{co} OR_{it} + \beta_{ca} AR_{it} + \varepsilon_{cl}$$

The model arising from the study results is firstly stated as follows;

$$CL = 0.391 + 0.082FR + 0.626CR + 1.265OR - 0.381AR$$

Asset restructuring has a significant negative effect on customer loans as stated by the coefficient of -0.381 (t = 4.960) and a p –value of 0.000. Financial restructuring was however found not to have a significant effect on customer loans as denoted by the coefficient of 0.082 (t = 1.591) and a p – value of 0.112. This might mean that banks do not necessarily have to borrow so as increase the level of customer loans.

The resulting equation incorporating the influence of the significant variables and their effect on customer loans is as follows;

$CL = 0.391 + 0.626CR + 1.265OR - 0.381AR$

Table 5.11: The Effects of Bank Restructuring on Customer Loans

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	0.396[a]	0.157	0.150	0.18049
ANOVA[a]						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	3.044	4	0.761	23.361	0.000[b]
	Residual	16.354	502	0.033		
	Total	19.398	506			

Coefficients[a]								
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**95.0% Confidence Interval for B**	
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1	(Constant)	0.391	0.019		20.907	0.000	0.354	0.427
	Financial restructuring	0.082	0.051	0.066	1.591	0.112	-0.019	0.182
	Capital restructuring	0.626	0.117	0.235	5.368	0.000	0.397	0.855
	Operational restructuring	1.265	0.199	0.268	6.364	0.000	0.875	1.656
	Asset restructuring	-0.381	0.077	-0.216	-4.960	0.000	-0.532	-0.230

a. Dependent Variable: Customer loans

Source: Research Findings

Table 5.12 provides the summary of the regression model, the ANOVA tests and results on the coefficients of the variables used in the model after including customer loans as an intervening variable. The study findings indicate that the adjusted R^2 is

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0.099. An indication that 9.9% of the asset restructuring, capital restructuring, operational restructuring and financial restructuring as well as customer loans are able to explain the variability of profitability of commercial banks in Kenya. This could imply that financial performance is significantly affected by bank restructuring when intervened by customer loans. The results indicate that only capital restructuring and operational restructuring have positive significant coefficients that can influence the profitability of the banks. Capital restructuring has a coefficient value of 0.109 ($t = 7.184$) p – value = 0.000. Restructuring capital increases profitability by 10.9% when intervened by customer loans. High capital levels might provide sufficient buffer to increase the level of financial performance. Asset restructuring has a significant decrease in profitability when intervened by customer loans. The significant negative effect of asset restructuring on profitability after intervention by customer loans is revealed by the reported coefficient value of -0.033 (t – value = 3.297) and p – value = 0.001.

However, financial restructuring and customer loans were not found to be significant in influencing profits as indicated by the coefficient of 0.012 (t = 1.872) and a p – value of 0.062 as this implies only financial restructuring increases financial performance by 1.2% but a level that was not found to be significant. Operational restructuring had a coefficient of -0.032 (t = 1.245) and a p – value of 0.214 which means restructuring operations of banks reduces profits by 3.2%.

The reported coefficient of -0.004 (t = 0.699) and a p – value of 0.485 in relation to customer loans means that introducing customer loans as an intervening variable reduces profits by 0.4% though with an effect which is not significant.

Table 5.12: The Effects of Customer Loans on the Relationship Between Bank Restructuring and Financial Performance

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	0.328[a]	0.108	0.099	0.02275

ANOVA[a]						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	0.031	5	0.006	12.102	0.000[b]
	Residual	0.259	501	0.001		
	Total	0.291	506			

Coefficients[a]								
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**95.0% Confidence Interval for B**	
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1	(Constant)	0.018	0.003		5.599	0.000	0.012	0.024
	Financial restructuring	0.012	0.006	0.080	1.872	0.062	-0.001	0.025
	Capital restructuring	0.109	0.015	0.333	7.184	0.000	0.079	0.138
	Operational restructuring	-0.032	0.026	-0.056	-1.245	0.214	-0.084	0.019
	Asset restructuring	-0.033	0.010	-0.151	-3.297	0.001	-0.052	-0.013
	Customer loans	-0.004	0.006	-0.032	-0.699	0.485	-0.015	0.007

a. Dependent Variable: Financial Performance

Source: Research Findings

The model results arising from this study that has customer loans as the intervening variable is as follows;

$$ROA = 0.018 + 0.012FR + 0.109CR - 0.032OR - 0.033AR - 0.004CL$$

The model arising from the variables that had a significant effect on profitability after incorporating customer loans as the intervening variable is as follows;

ROA = 0.018 + 0.109CR − 0.033AR

The combined mediation effect of deposits and customer loans on the relationship between bank restructuring and financial performance was done and a composite variable, financial services was estimated. The composite variable was estimated as the arithmetic average of deposit variable and the customer loans variable. Financial services was regressed against the bank restructuring variables, which were financial restructuring, capital restructuring, operational restructuring and asset restructuring. Financial services which was the composite variable of the mediating effect was regressed against the bank restructuring variables, which were financial restructuring, capital restructuring, operational restructuring and asset restructuring.

The findings of the analysis are as displayed in Table 5.13. The indicators of the model fitness provided coefficient of determination adjusted R Square of 0.104. In other words, financial restructuring, capital restructuring, operational restructuring and asset restructuring can explain 10.4% of changes in financial services.

On the significance of variable by variable, operational restructuring and asset restructuring revealed the highest level of significance as denoted by the coefficients of 0.719 (t = 2.681) with a p – value of 0.000 and a coefficient of -0.387 (t = 6.505) and a p – value of 0.000 respectively. Therefore operational restructuring was found to significantly increase financial services by 71.9% while asset restructuring was found to significantly reduce financial services by 38.7%.

Table 5.13 The Effects of Financial Services on the Relationship Between Bank Restructuring and Financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.333[a]	.111	.104	.139779

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.221	4	.305	15.629	.000[b]
	Residual	9.808	502	.020		
	Total	11.030	506			

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.556	.014		38.428	.000	.528	.584
	Financial restructuring	.024	.040	.026	.615	.539	-.054	.102
	Capital restructuring	.242	.090	.121	2.681	.008	.065	.419
	Operational restructuring	.719	.154	.202	4.668	.000	.416	1.021
	Asset restructuring	-.387	.059	-.291	-6.505	.000	-.504	-.270

a. Dependent Variable: Financial Services

Source: Research Findings

Additionally, capital restructuring had a significant positive effect on bank financial performance as shown by a coefficient of 0.242 (t = 2.681) and a p – value of 0.008 implying that restructuring capital is capable of significantly increasing the level of financial services by 24.2%. On the other hand financial restructuring was found not to have a significant effect on bank profitability as revealed by the coefficient of

0.024 (t = 0.615) and a p – value of 0.539. Embarking on financial restructuring therefore increases financial services with a level that was not found to be significant.

The output model is therefore stated as follows:

$$FS = 0.556 + 0.024FR + 0.242CR + 0.719OR – 0.387AR$$

After taking into account the level of significance of the variables, the resulting model is thus stated;

$$FS = 0.556 + 0.242CR + 0.719OR – 0.387AR$$

The ANOVA estimation provided by the model tested the following hypothesis:

H3: The mediating effect of financial services on the relationship between bank restructuring and financial performance of commercial banks in Kenya is not significant.

The results as summarized in Table 5.14 show that the regression had a sum of squares of 0.033 and a model residual's of 0.258 with a mean square of 0.007 for the regression and 0.000 for the residuals. The Analysis of Variance (ANOVA) results produced an F – significance value of 12.813 and a p – value of 0.000. This could point to the presence of significance relationship between financial performance and independent variables combined with mediating variables. For that reason, the hypotheses that the mediating effect of financial services on the relationship between bank restructuring and financial performance of commercial banks in Kenya is not significant is rejected.

A composite variable for financial services estimated as the arithmetic average of deposits and customer loans was fitted in the regression equation. The dependent variable was financial performance while the independent variables were financial restructuring, capital restructuring, operational restructuring, asset restructuring, and

financial services. The estimated adjusted R square was 0.105. This means that 10.5% of bank profitability is explained by financial restructuring, capital restructuring, operational restructuring, asset restructuring and financial services when the relationship between bank restructuring and financial performance is intervened by financial services.

The mediation using financial services gives rise to the following model;

$$ROA_{it} = \alpha_{r33} + \beta_{rf3}FR_{rit} + \beta_{rc3}CR_{rit} + \beta_{ro3}OR_{rit} + \beta_{ra3}AR_{rit} + \beta_{rd3}FS_{rit} + \varepsilon_{r33}$$

The output model therefore becomes;

$$ROA = 0.009 + 0.011FR + 0.103CR - 0.047OR - 0.026AR + 0.014FS$$

The significant variables in the equation were capital restructuring and asset restructuring. Capital restructuring had a significant positive effect on profitability of the banks as denoted by the coefficient of 0.103 (t = 6.964) and a p –value of 0.000.

This means that when intervened by financial services, capital restructuring accounts for 10.3% of bank profits which was found to be significant. Asset restructuring reported a significant negative effect on profitability with a coefficient of -0.026 (t = 2.570) and a p –value of 0.010. The revelation is that asset restructuring significantly reduces profits of banks by 2.6%.

Financial restructuring, operational restructuring and financial services were found not to have significant influence on financial performance of commercial banks. Financial restructuring had a coefficient of 0.011 (t =1,779) and a p – value of 0.076 indicating that this independent variable increases bank profits by 1.1%. Operational restructuring reported a coefficient of -0.047 (t = 1.856) and a p – value of 0.064 giving the result that restructuring operations of banks reduces profits by 4.7% though insignificantly.

Table 5.14: The Effects of Bank Restructuring and Financial Services on Financial Performance

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	0.337[a]	0.113	0.105	0.02268

ANOVA[a]						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	0.033	5	0.007	12.813	0.000[b]
	Residual	0.258	501	0.001		
	Total	0.291	506			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1	(Constant)	0.009	0.005		1.886	0.060	0.000	0.018
	Financial restructuring	0.011	0.006	0.075	1.779	0.076	-0.001	0.024
	Capital restructuring	0.103	0.015	0.316	6.964	0.000	0.074	0.132
	Operational restructuring	-0.047	0.026	-0.082	-1.856	.064	-0.097	0.003
	Asset restructuring	-0.026	0.010	-0.120	-2.570	0.010	-0.046	-0.006
	Financial Services	0.014	0.007	0.085	1.915	0.056	0.000	0.028

a. Dependent Variable: Financial Performance

Source: Research Findings

Financial services on the other hand revealed a coefficient of 0.014 (t = 1.915) and a p –value of 0.056 meaning that the composite intervening value of financial services is capable of increasing bank financial performance by 1.4% but with a value that is not significant. Financial services should however not be ignored by management of

banks since they explain 1.4% of bank financial performance which is fairly
significant as the t = 1.915 and the p – value is a borderline case of 0.056.

The results of the sub-hypotheses as presented in Table 5.15 are as follows;

Table 5.15 Summary of Results of Hypothesis Testing Relating to Objective Three

OBJECTIVE	HYPOTHESIS	SUB HYPOTHESES	RESULT	TABLE	CONCLUSION/ INTERPRETATION
To establish the effect of financial services on the relationship between bank restructuring and financial performance of commercial banks in Kenya	The relationship between bank restructuring and financial performance of commercial banks in Kenya is not intervened by financial services	The relationship between financial restructuring and financial performance of commercial banks in Kenya is not intervened by financial services	Fail to reject	5.14	The relationship between financial restructuring and financial performance of commercial banks in Kenya is not intervened by financial services. (t=1.779, p>0.05)
		The relationship between capital restructuring and financial performance of commercial banks in Kenya is not intervened by financial services	Reject	5.14	The relationship between capital restructuring and financial performance of commercial banks in Kenya is intervened by financial services. (t=6.964, p<0.05)
		The relationship between operational restructuring and financial performance of commercial banks in Kenya is not intervened by financial services	Fail to reject	5.14	The relationship between operational restructuring and financial performance of commercial banks in Kenya is not intervened by financial services. (t= 1.856, p>0.05)
		The relationship between asset restructuring and financial performance of commercial banks in Kenya is not intervened by financial services	Reject	5.14	The relationship between asset restructuring and financial performance of commercial banks in Kenya is intervened by financial services. (t=2.570, p<0.05)

Source: Author, 2017

5.2.3.4 The Joint Effects of Financial Services, Size and Bank Ownership on the Relationship Between Bank Restructuring and Financial Performance

The fourth objective was to establish the joint effect of financial services, size and ownership on the relationship between bank restructuring and profitability. Table 5.16 (locally owned banks) and Table 5.14 (foreign owned banks) shows the results of the model summary, ANOVA, regression sum squares, model residuals, regression mean square, the model residuals, F – significance value, the p – values as well as Coefficient values (beta).

H4: The joint effect of bank restructuring, financial services and firm characteristics on financial performance of commercial banks in Kenya is not significant.

This hypothesis was addressed through the application of the following equation:

ROA_{it} = αr44 + βrf4FRrit + βrc4CRrit + βro4ORrit + βra4ARrit + βrd4DPrit + βrl4CLrit + βrs4Szrit + εr44

The joint effect of both financial services as measured using deposits and customer loans and firm characteristics as measured using bank size and ownership and the significant variables that influence bank profitability are further discussed to enable acceptance or rejection of the study hypothesis.

Because the data on ownership is nominal data ownership was segregated as local (a score of 1) and foreign (a score of 0). Two regression models were estimated; the first regression to test the joint effect in the case of local banks and a second regression to test the joint effect of local banks. Both regression models included the moderating variable of size in the equations to test the joint effect.

The first regression model shows the study results of the joint effect of financial services and firm characteristics on the relationship between bank restructuring and financial performance of locally owned commercial banks in Kenya.

Table 5.16 reveals the results on ANOVA which show a regression sum square of 0.055 and a model residual's of 0.172. The regression mean square is 0.008 and 0.000 for the residuals. The results provided a high F – significance value of 16.206 and a p – value of 0.000. The coefficient of determination adjusted R^2 of 0.227 indicates that the independent, moderating and intervening variables used in the model have likelihood of explaining 22.7% of the variations or changes in the dependent variable (profitability of banks).

This implies that there is significant relationship between financial performance and other variables of the study (bank ownership, operational restructuring, capital restructuring, customer loans, asset restructuring, deposits, size of the bank, and financial restructuring). Therefore, the study should reject the null hypothesis that the effect of bank restructuring, financial services and firm characteristics jointly on financial performance of commercial banks in Kenya is not significant.

The upshots of regression coefficients on individual variables used in the model reveal that an increase in financial restructuring has a capability of increasing the profit margins of a commercial bank by 1.9% ($t = 2.038$) and $p < 0.05$. Similarly, capital restructuring increases the chances of profitability of the commercial banks in Kenya by 13.7% (t = 8.050) with a p – value of 0.000. Bank size has also the capacity to increase profits of banks by 1.0% (t = 5.602) with a p –value of 0.000. On the other hand, asset restructuring is likely to reduce profitability by 2.7% (t = 2.408) and a p – value of 0.017. Bank ownership also has a probability of reducing the profitability of a bank profit significantly by 2.1% (t = -2.426) with a p – value of < 0.05. It can

further be deduced from the findings that on the test of joint effect, operational restructuring and bank deposits were found to have an insignificant effect on the profits of banks.

Table 5.16 Joint Effect of Bank Restructuring, Financial Services and Firm Characteristics on Financial Performance for Locally Owned Banks

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	0.492[a]	0.242	0.227	0.02200

ANOVA[a]						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	0.055	7	0.008	16.206	0.000[b]
	Residual	0.172	356	0.000		
	Total	0.227	363			

Coefficients[a]								
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**95.0% Confidence Interval for B**	
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1	(Constant)	-0.024	0.007		-3.232	0.001	-0.039	-0.009
	Financial restructuring	0.019	0.007	0.133	2.838	0.005	0.006	0.032
	Capital restructuring	0.136	0.017	0.396	8.050	0.000	0.103	0.170
	Operational restructuring	-0.044	0.029	-0.077	-1.533	0.126	-0.100	0.012
	Asset restructuring	-0.027	0.011	-0.127	-2.408	0.017	-0.049	-0.005
	Deposits	0.004	0.009	0.027	.468	0.640	-0.013	0.021
	Customer loans	-0.021	0.009	-0.138	-2.426	0.016	-0.037	-0.004
	Bank Size	0.010	0.002	0.319	5.602	0.000	0.007	0.014

a. Dependent Variable: Financial Performance

Source: Research Findings

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The model variables to state the joint effect of deposits and customer loans as the intervening variables and bank size and ownership as the moderating variables is stated as follows;

The findings of the study state the model output of locally owned banks as follows;

$$ROA_{it} = -0.024 + 0.019FR + 0.136CR - 0.044OR - 0.027AR + 0.004DP - 0.021CL + 0.010SZ$$

The new model which was found to predict the joint effect of bank restructuring, financial services and firm characteristics on financial performance of locally owned commercial banks in Kenya was simplified as follows after taking into account the significant value of the study variables is thus stated;

$$ROA_{it} = -0.024 + 0.019FR + 0.136CR - 0.027AR - 0.021CL + 0.010SZ$$

The model reveals that financial restructuring, capital restructuring, asset restructuring, customer loans and size of banks are the main variables which have an influence on the financial performance of locally owned commercial banks in Kenya. In terms of the overall profitability, capital restructuring influences bank profitability significantly.

The detailed results as presented in Table 5.17 were as follows;

Table 5.17 Summary of Results of Hypothesis Testing Relating to Objective Four (Joint Effect of Locally Owned Banks)

OBJECTIVE	HYPOTHESIS	SUB HYPOTHESES	RESULT	TABLE	CONCLUSION/ INTERPRETATION
To evaluate the joint effect of bank restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya	The joint effect of bank restructuring , financial services, firm characteristics and financial performance of commercial banks in Kenya is not significant	The joint effect of financial restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is not significant	Reject	5.16	The joint effect of financial restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is significant. (t=2.838, p<0.05)
		The joint effect of capital restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is not significant	Reject	5.16	The joint effect of financial restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is significant. (t=8.050, p<0.05)
		The joint effect of operational restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is not significant	Fail to reject	5.16	The joint effect of operational restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is not significant. (t= 1.533, p>0.05)
		The joint effect of asset restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is not significant	Reject	5.16	The joint effect of asset restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is not significant. (t=-2.408, p<0.05)

Source: Author. 2017

The second regression model which establishes the joint effect on the relationship between bank restructuring and financial performance in the case of foreign owned banks is presented in Table 5.18.

Table 5.18 shows the results of the model summary, ANOVA as well as Coefficient values (beta). The coefficient of determination adjusted R^2 of 0.274 indicates that the independent, moderating and intervening variables used in the model have likelihood of explaining 27.4% of the variations or changes in the dependent variable (profitability of banks).

This hypothesis was addressed through the application of the following equation:

$$ROA_{it} = \alpha r44 + \beta rf4FRrit + \beta rc4CRrit + \beta ro4ORrit + \beta ra4ARrit + \beta rd4DPrit + \beta rl4CLrit + \beta rs4Szrit + \varepsilon r44$$

The joint effect of both financial services as measured using deposits and customer loans and firm characteristics as measured using bank size and ownership and the significant variables that influence bank profitability are further discussed to enable acceptance or rejection of the study hypothesis.

The results on ANOVA as shown in Table 5.18 show a regression sum square of 0.018 and a model residual's of 0.040. The regression mean square is 0.003 and 0.000 for the residuals. The results provided a high F – significance value of 8.659 and a p – value of 0.000. This implies that there is significant relationship between financial performance and other variables of the study (bank ownership, operational restructuring, capital restructuring, customer loans, asset restructuring, deposits, size of the bank, and financial restructuring). Therefore, the study should reject the null hypothesis that the effect of bank restructuring, financial services and firm

characteristics jointly on financial performance of commercial banks in Kenya is not

significant.

Table 5.18 Joint Effect of Bank Restructuring, Financial Services and Firm Characteristics on Financial Performance for Foreign Owned Banks

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	0.557[a]	0.310	0.274	0.01727

ANOVA[a]						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	0.018	7	0.003	8.659	0.000[b]
	Residual	0.040	135	0.000		
	Total	0.058	142			

Coefficients[a]								
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**95.0% Confidence Interval for B**	
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1	(Constant)	-0.015	0.007		-2.143	0.034	-0.029	-0.001
	Financial restructuring	-0.029	0.015	-0.146	-1.974	0.050	-0.058	0.000
	Capital restructuring	0.059	0.030	0.201	1.993	0.048	0.000	0.118
	Operational restructuring	0.017	0.052	0.027	0.316	0.753	-0.087	0.120
	Asset restructuring	0.002	0.024	0.006	0.072	0.943	-0.045	0.049
	Deposits	0.021	0.012	0.177	1.723	0.087	-0.003	0.044
	Customer loans	-0.008	0.007	-0.089	-1.048	0.297	-0.022	0.007
	Bank Size	0.007	0.003	0.346	2.722	0.007	0.002	0.013

a. Dependent Variable: Financial Performance

Source: Research Findings

The estimates of regression coefficients on individual variables used in the model reveal that the variables that have a significant effect on the financial performance of foreign owned banks are capital restructuring, financial restructuring and bank size. Capital restructuring has a capability of significantly increasing the profit margins of a commercial bank by 5.9% ($t = 1.993$) and $p < 0.05$. Similarly, bank size which is a moderating variable increases the chances of increasing profits of the commercial banks in Kenya by 0.7% (t = 2.722) with a p – value of 0.007, the increase of which is significant as revealed by the p-value of < 0.05.

Financial restructuring is likely to significantly reduce profitability by 2.9% (t = 1.974) and a p –value of 0.050. It can further be deduced from the findings that on the test of joint effect, operational restructuring, asset restructuring, deposits and customer loans were found to have an insignificant effect on the profits of foreign owned banks.

The model variables to state the joint effect of deposits and customer loans as the intervening variables and bank size and ownership as the moderating variables is stated as follows;

The findings of the study state the model as follows;

$$ROA_{it} = -0.015 - 0.029FR + 0.059CR + 0.017OR + 0.002AR + 0.0214DP - 0.008CL + 0.007SZ$$

The new model which was found to predict the joint effect of bank restructuring, financial services and firm characteristics on financial performance of commercial banks in Kenya was simplified as follows after taking into account the significant value of the study variables is thus stated;

$$ROA_{it} = -0.015 - 0.029FR + 0.059CR + 0.007SZ$$

The summary of the results of the sub-hypotheses which can be viewed in Table 5.19 are as follows;

Table 5.19 Summary of Results of Hypothesis Testing Relating to Objective Four (Joint Effect of Foreign Owned Banks)

OBJECTIVE	HYPOTHESIS	SUB HYPOTHESES	RESULT	TABLE	CONCLUSION/ INTERPRETATION
To determine the joint effect of bank restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya	The joint effect of bank restructuring, financial services, firm characteristics and financial performance of commercial banks in Kenya is not significant	The joint effect of financial restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is not significant	Reject	5.18	The joint effect of financial restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is significant. (t=1.974, p = 0.05)
		The joint effect of capital restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is not significant	Reject	5.18	The joint effect of financial restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is significant. (t=1.993, p<0.05)
		The joint effect of operational restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is not significant	Fail to reject	5.18	The joint effect of operational restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is not significant. (t= 0.316, p>0.05)
		The joint effect of asset restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is not significant	Fail to reject	5.18	The joint effect of asset restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya is not significant. (t=0.072, p<0.05)

Source: Author, 2017

The model reveals that financial restructuring, capital restructuring and size of banks are the main variables which have an influence on the financial performance of the commercial banks in Kenya. In terms of the overall profitability, capital restructuring influences bank profitability significantly.

5.2.3.5 Summary of Comparative Results and of Hypotheses Testing

The joint results reveal that for locally owned banks the explanatory power of the independent variables was 22.7% (adjusted R^2) compared with the explanatory power in the case of the joint effect of foreign owned banks of 27.4%. This shows that incorporating the interaction of size on bank restructuring variables and the mediating effect of deposits and customer loans on the relationship between bank restructuring and financial performance increases profits of banks. However profits of foreign owned banks increase more than the profits of locally owned banks when the interaction effect of size and the mediation effect of deposits and customer loans is included. When there is this interaction and mediation, financial restructuring, capital restructuring, asset restructuring, customer loans and bank size are significant variables in influencing financial performance of locally owned banks. In the case of foreign owned banks in the presence of interaction, only financial restructuring, capital restructuring and bank size are significant variables in influencing financial performance of foreign owned banks.

The explanatory power on financial performance of deposits, customer loans and financial services which are the mediating variables revealed that deposits and bank restructuring explained 13.4% (R square) of financial performance, customer loans and bank restructuring explained 9.9% (R square) of bank financial performance and financial services explained 10.5% (R square) of bank financial performance. The explanatory power in the case of deposits, customer loans and financial services is

less than the explanatory power in the case of the joint effect. In the case of bank deposits as the mediating variable financial restructuring, capital restructuring operational restructuring, asset restructuring and the intervening variable itself deposits had a significant effect on bank profits. When customer loans was the mediating variable, capital restructuring and asset restructuring significantly influenced financial performance of the commercial banks. Intervention by financial services brought out capital restructuring, and asset restructuring are as the significant variables that influence bank financial performance.

The moderation variables size and ownership brought the interaction effect of the variables and their effect on financial performance. Moderation of the relationship between bank restructuring and financial performance using size lead to an explanatory power of 25.7% which was higher than the explanatory power of the mediating effects. This explanatory of 25.7% is also higher than the joint effect explanatory power of 22.7% in the case of locally owned banks but higher than the explanatory power in the case of foreign owned banks of 27.4%. Therefore interaction of bank restructuring variables of financial restructuring, capital restructuring, operational restructuring and asset restructuring can lead to increased financial performance, just the same way that the joint effect of the moderation and mediating effect can jointly lead to increased bank financial performance. According to the findings of this study, managers can increase profits of banks if they are able to properly manage the interaction of size and the bank restructuring variables. With moderation using size, only operational restructuring and the interaction using capital restructuring had a significant effect on bank profitability.

Moderation using ownership finds that in the case of locally owned banks, the explanatory power of 14.2% in the case of locally owned banks is more than the

mediating effect explanatory powers but less than the explanatory power of the moderating and the joint effects. In the case of foreign owned banks the explanatory power of 13.7% is lower than that of locally owned banks. The 13.7% is also higher than the explanatory powers of the mediating variables but less than the explanatory powers of the moderating effects and the joint effects. In the case of locally owned banks the significant variables in influencing bank financial performance are financial restructuring, capital restructuring, operational restructuring and asset restructuring while in the case of foreign owned banks the bank restructuring variables that have a significant effect on bank financial performance were found to be financial restructuring, capital restructuring and operational restructuring.

In the absence of moderation and mediation, the explanatory power of the bank restructuring variables was 10.0% which is less than the explanatory power in the case of the moderating effect the joint effect and in the case of mediation using deposits and mediation using financial services. This explanatory power of 10.0% is however more than the explanatory power of mediation of customer loans which was 9.9%. Without moderation and mediation, the significant bank restructuring variables that had a significant effect on bank financial performance were, capital restructuring and asset restructuring.

Therefore managers of banks should manage the joint variables of interaction of moderating variables and the effect of mediating variables instead of focusing on interaction factors alone or the mediating variables alone so as to increase bank profits. The study findings reveal that managing the interaction of size and the bank restructuring variables of financial restructuring, capital restructuring, operational restructuring and asset restructuring can lead to increased bank financial performance so long as the interaction between bank size and bank capital is properly managed.

The summary of the ANOVA which estimated the F-significance values and p-values which were used as a basis of accepting or rejecting the main hypotheses is given below.

Table 5.20 Summary of Results of Hypothesis Testing for the Four Hypotheses

Research Objective	Hypothesis	Test Result
1. To establish the effect of bank restructuring on financial performance of commercial banks in Kenya.	1. The relationship between bank restructuring and financial performance of commercial banks in Kenya is not significant.	Reject (F - Statistics = 15.020, $p<0.05$)
2. To determine the influence of firm characteristics on the relationship between bank restructuring and financial performance of commercial banks in Kenya.	2. The moderating effect of bank characteristics on the relationship between bank restructuring and financial performance of commercial banks in Kenya is not significant.	Reject (F - Statistics = 20.453, $p<0.05$)
3. To establish the influence of financial services on the relationship between bank restructuring and financial performance of commercial banks in Kenya.	3. The mediating effect of financial services on the relationship between bank restructuring and financial performance of commercial banks in Kenya is not significant.	Rejected (F - Statistics = 12.813, $p<0.05$)
4. To determine the joint effect of bank restructuring, financial services, firm characteristics on financial performance of commercial banks in Kenya	4. The joint effect of bank restructuring , financial services, firm characteristics and financial performance of commercial banks in Kenya is not significant	Rejected (F - Statistics = 16.206, $p<0.05$) for local banks (F - Statistics = 8.659, $p<0.05$) for foreign banks

Source: Author, 2017

The four null hypotheses were rejected by this study. In rejecting or failing to reject the hypotheses, the sub-hypotheses were thus tested. The rejection of one or more of the sub-hypotheses under an objective lead to the rejection of the main hypothesis in this study. The rejection of the null hypotheses means that there is a relationship

between bank restructuring and financial performance of commercial banks in Kenya. Additionally, size and ownership moderated the relationship between bank restructuring and financial performance. Financial services were also able to intervene in the relationship between bank restructuring and financial performance and there was a joint effect on the relationship between bank restructuring and bank financial performance.

5.3 Discussion of the Hypotheses and Research Findings

The general objective of this study was to establish the relationships among bank restructuring, financial services, firm characteristics and financial performance of commercial banks in Kenya. The discussion of the results and the test of the hypotheses are presented in this section.

5.3.1 The Effect of Bank Restructuring on Bank Financial Performance

Objective one of the study was to determine the effect of bank restructuring on financial performance of commercial banks in Kenya. Four attributes of bank restructuring were used in this study which were, financial restructuring, capital restructuring, operational restructuring and asset restructuring. The indicator of financial performance was return on assets.

The findings revealed that capital restructuring was found to be a major determinant of financial performance of commercial banks in Kenya. Asset restructuring was found to have a significant negative effect on bank profitability in Kenya. Operational restructuring and financial restructuring were found not to have a significant relationship between bank restructuring and financial performance of commercial banks operating in Kenya. Therefore capital restructuring had a significant positive effect on profits while asset restructuring was found to have a significant negative effect on financial performance of commercial banks in Kenya

and therefore were able to fairly predict the financial performance of these banks for the period between 2002 and 2014.

The finding on capital restructuring conflicts with the study by Kwaning (2014) who found that restructuring of government owned banks lead to a decrease in profitability. However the finding on asset restructuring supports the finding by Kwaning (2014) because restructuring assets reduces profitability of commercial banks according to this study. This revelation is agreeable with Osoro (2014) who found out that there exists a positive effect of financial restructuring on the financial performance of commercial banks in Kenya. The author however relied on only 11 commercial banks listed at the Nairobi Securities Exchange (NSE) operating in Kenya for the period of between 2008 and 2013 which was a smaller population. Debt ratio, dividend payout and equity ratio were used as measures of financial restructuring in the study by Osoro (2014) study whereas this study uses the long term debt to asset ratio as a measure of financial restructuring.

The revelation conflicts with that by Nor, *et. al.* (2008) who found that bank restructuring was not found to be justifiable because restructured banks ended up being less focused, had weak corporate governance, reported poor management debt ratios and poor profitability. This study also conflicts with that by Rose (1994) who found out that financial and operational restructuring increases bank profitability. This study finds that financial and operational restructuring did not have a significant effect on bank financial performance.

5.3.2 The Effects of Bank Size and Ownership on the Relationship Between Bank Restructuring and Bank Financial Performance

Objective two of the study was to determine the moderating effect of firm characteristics on the relationship between bank restructuring on financial

performance of commercial banks in Kenya. The hypothesis under this objective was; The relationship between bank restructuring and financial performance is not moderated by firm characteristics. Two attributes of firm characteristic were used in this study which were, bank size and bank ownership. When the relationship between bank restructuring and financial performance was moderated using size the results were as follows;

Financial restructuring did not have a significant effect on financial performance of commercial banks in Kenya. Capital restructuring on its own did have a significant effect on financial performance of the banks. Operational restructuring provided a negative effect on profitability of the commercial banks in Kenya. Bank size did not have a significant effect on bank profits. The interaction of capital and size of banks had a significant positive effect on bank financial performance. The interaction of operational restructuring with size, the interaction of financial restructuring with size and the interaction of asset restructuring with size did not have a significant effect on bank financial performance.

The result findings therefore implies that operational restructuring and bank size are significant variables which if managed well can influence the profitability of commercial banks in Kenya. However bank size has to be managed together with bank capital to realize an increase in bank profitability. On the other hand, financial restructuring, capital restructuring and operational restructuring were found to have the ability of reducing the profitability of the banks.

In terms of moderation using ownership for locally owned banks and foreign owned banks the following are the study findings. The study findings reveal that for locally owned banks, financial restructuring, capital restructuring, operational restructuring and asset restructuring are significant in influencing financial performance of

commercial banks in Kenya. Whereas financial restructuring and capital restructuring had a significant positive effect on bank profitability, operational restructuring and asset restructuring has a significant negative effect on bank profitability.

The moderation in the case of foreign owned banks, capital restructuring and operational restructuring had a significant positive effect on financial performance of banks while financial restructuring had a significant negative effect on financial performance. On the other hand asset restructuring was found not to have a significant effect on financial performance of commercial banks in Kenya.

Al-Obaidan (2008) discovered that the most important characteristics of banks owned by the state tend to rely on government subsidies and they are sure of getting additional capital injection from government in case of a crisis. It was also revealed that an economy that has few public banks relies majorly on private capital focusing more on ensuring that services are provided to their clients. Such banks are only profitable if they are able to receive injection of private capital in the event of shortfall in capital levels because of monitoring by the private owners.

Gianetti and Ongena (2009) findings indicate that foreign lending increases the size of firms in terms of growth in sales, assets owned, and use of leverage. They however found out that foreign lending had a negative impacted on the size of small firms as the firms experienced a decrease in sales level, assets and financial debt. This could imply that foreign lending only impacts more on large firms as compared to small ones. Rose (1994) found that operational restructuring reduces bank profits which concur with this study. De Young and Rice (2003) finds that diversifying bank activities into non-interest bearing activities through bank operational restructuring increases bank financial performance which conflicts with this study These findings conflicts with those by Suehiro (2002) who found out that restructuring

nonperforming loans decreases profits in the short-run by increasing the banks' asset quality but tends to increase banks profitability in the long-run.

The results of this study conflicts with that of Demirguc-kunt and Huzinga (1999) who found that bank size and foreign ownership influences bank profitability. But Kwaning, *et. al.* (2014) found that ownership influences financial performance by stating that foreign owned banks are significantly more profitable than their local counterparts. This findings of this study concurs with the study by Kwaning, *et. al.* (2014) by revealing that foreign owned banks performed better than locally owned banks.

5.3.3 The Effect of Financial Services on the Relationship between Bank Restructuring and Bank Financial Performance

Objective three of the study was to establish the intervening effect of financial services on the relationship between bank restructuring and financial performance of commercial banks in Kenya. Two attributes of financial services were used in this study which were, deposits and customer loans. A composite variable for financial services was estimated as the arithmetic average of deposits and customer loans. This is because banks undertake bank restructuring to be able to mobilize more deposits and to be able to extend more loans to their customers.

Only operational restructuring and asset restructuring were found to significantly influence the level of deposits of commercial banks in Kenya. Whereas operational restructuring increases bank deposits, asset restructuring was found to significantly reduce bank deposits. After intervening the relationship between bank restructuring and financial performance using deposits, asset restructuring became insignificant and two additional variables, operational restructuring and financial restructuring were found to be significant in addition to capital restructuring.

The findings on the effect of bank restructuring on customer loans are that capital restructuring and operational restructuring have a significant positive effect on customer loans while asset restructuring has a negative significant effect on customer loans. Financial restructuring was found not to have a significant effect on customer loans. On using customer loans to mediate the relationship between bank restructuring and bank financial performance, the study findings revealed that only capital restructuring, and asset restructuring influences profitability of commercial banks when intervened by customer loans among commercial banks in Kenya.

When financial services were regressed against bank restructuring, capital restructuring, operational restructuring and asset restructuring were found to have a significant effect on financial services. Financial restructuring was however found not to have a significant effect on financial services. When the relationship between bank restructuring and financial performance was intervened by financial services capital restructuring had a significant positive effect on financial performance, asset restructuring had a significant negative effect on financial performance while financial restructuring and operational restructuring didnot have a significant effect on bank financial performance. Financial services mediated positively the relationship between bank restructuring and financial performance with positive contribution to profitability but with marginal significance.

This concurs with the findings of Beck, Demirguc and Peria (2007) who found out that a wide branch network, opening of bank subsidiaries, agency banking and installation of an ATM network are important in enabling access to financial services and mobilizing deposits of commercial banks. The findings of this study also concur with that of Suehiro (2002) providing for nonperforming loans is a sign of poor asset

quality and may keep away depositors who might favour dealing with banks which provide less on their loans.

This study alludes that proper management of bank operations and asset quality are important if the objective is to increase bank deposits which concurs with the study by Beck, Demirguc-Kunt and Peria (2007) who found out that financial services which were deposits, loans and payments positively influenced profitability of restructured banks which concurs with the findings of this study. The results of this study however conflicts with those of Suehiro (2002) who argue that if the loans extended end up being nonperforming, financial performance then decreases. These findings however conflict with those by Suehiro (2002) who states that banks need to increase the loans they extend to their customers so that they can increase profitability suggesting a significant positive relationship between customer loans and bank profitability. Suehiro (2002) further states that banks need to increase the loans they extend to their customers so that they can increase profitability suggesting a significant positive relationship between customer loans and bank profitability which is a further conflict with this study.

The findings in this study conflicts with those by Ivashina and Scharfstein (2008) who found out that extending credit to large borrowers reduces subsequent lending because large borrowers borrow large loans which they take long to repay. This means that it takes time to make repeat loans to the large borrowers. In addition, lending during a period of a financial crisis decreases profitability of banks. The current study concurs with the study by Bonin *et, al* (2004) who states that privatization of public banks enables them to inject more capital which they can use for extending of loans.

These results of this study concurs with those by Beck, Demirguc-Kunt and Peria (2007) who found out that good infrastructure such as expanded branch network,

installations of ATM network, opening of subsidiaries, use of internet banking, agency banking, and embracing ICT in processing financial transactions within the banking institution as well as across banking institutions are important infrastructural facilities that are necessary to fast track provision of financial services. They argue that financial services which were deposits, loans and payments positively influenced profitability of restructured banks which concurs with the findings of this study. The authors further state that ensuring access to financial services has cost implications and can therefore lead to a decrease in profitability.

5.3.4 The Joint Effect of Financial Services and Firm Characteristics on the Relationship between Bank Restructuring and Bank Financial Performance

Objective four of the study was to investigate the joint effect of bank restructuring, financial services and ownership on financial performance of commercial banks in Kenya. The study hypothesis was that the joint effect of financial services and firm characteristics on the relationship between bank restructuring and financial performance is not significant. The joint effect for locally owned banks was determined separately from the joint effect of foreign owned banks.

The study findings reveals that financial restructuring, capital restructuring, asset restructuring, customer loans and size of banks are the main variables which have an influence on the financial performance of the commercial banks operating in Kenya. In terms of the overall profitability, capital restructuring influences bank profitability significantly. Emphasis is made on the need to restructure a bank's capital whenever a bank finds itself insolvent. Asset restructuring has a negative significant effect on the profitability of commercial banks which means giving loans that will end up being nonperforming is costly to banks as this leads to a decrease in the financial performance of commercial banks in Kenya.

Suehiro (2002) states that restructuring assets to increase the asset quality of banks is important as banks with reduced nonperforming loans tend to be more profitable emphasizing on the importance of asset restructuring which this study finds as unimportant. Honohan and King (2009) singles size as the only aspect that affects access to financial services and therefore profitability which concurs with this study as the study results identify bank size as one of the important factors that influence profits. Barako *et. al.* (2013) finds that bank size and capitalization have a positive influence on access to financial services and a positive effect on bank financial performance. This study in addition finds that customer loans, borrowings or the debt level and asset restructuring or the asset quality also influence financial performance of commercial banks.

Al-Obaidan (2008) finds out that banks owned by state relies more on state injected capital and are normally less profitable which conflicts with the findings of this study. The author argues that an economy that is dominated by private banks and has few public banks tend to rely more on private capital are more profitable because of the need to increase the EPS of the banks which concurs with the findings of this study which states that capital restructuring has a positive effect on profits of banks. Yildirim (2013) finds that firm characteristics (size of assets) are important in determining the extent of access to financial services. The authors state that larger banks tend to offer more financial services and they therefore tend to be more profitable which concurs with the results of this study which recognizes bank size as a significant moderating variable.

On analyzing the joint effect of foreign owned banks the model reveals that financial restructuring has a significant negative effect on bank financial performance of commercial banks, capital restructuring had a significant positive effect on bank

financial performance, while bank size had a significant positive effect on bank financial performance. In terms of the overall profitability, capital restructuring influences bank profitability significantly. It can further be deduced from the findings that on the test of joint effect, operational restructuring, asset restructuring, deposits and customer loans were found to have an insignificant effect on the profits of banks of foreign owned banks.

Emphasis is made on the need to restructure a bank's capital whenever a bank finds itself insolvent. Financial restructuring has a negative effect on the profitability of commercial banks which means borrowings by foreign banks is an important aspect. This might mean that when the foreign owned banks are not able to raise sufficient deposits they can borrow long-term to have sufficient funds to lend to their customers.

Honohan and King (2009) single out size as the only aspect that affects access to financial services and therefore profitability which conflicts with this study as the study results identify bank size, customer loans, asset restructuring and capital restructuring as variables that influence financial performance of commercial banks in Kenya. Barako, *et. al.* (2013) finds that bank size and capitalization have a positive influence on access to financial services and a positive effect on bank financial performance which concurs with this study. This study in addition finds that customer loans, borrowings or the debt level and asset restructuring or the asset quality also influence financial performance of commercial banks.

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extent of access to financial services. The authors state that larger banks tend to offer

more financial services and they therefore tend to be more profitable which concurs

with the results of this study which recognizes bank size as a significant moderating

variable.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The study had the objective of establishing the relationship among bank restructuring, financial services, firm characteristics and financial performance of commercial banks in Kenya. Four hypotheses were subjected to hypothetical tests so as to achieve the objectives of the study. This chapter summarizes the study findings of hypothesis testing, draws conclusions from the study and states and explains the various contributions to knowledge. Recommendations for policy and practice are identified and discussed in this chapter after which several limitations to the study are discussed. Areas for further research are also suggested.

6.2 Summary of Findings

The study had the objective of investigating the relationships among bank restructuring, financial services and firm characteristic and financial performance of commercial banks in Kenya. The four categories of the study variables used to achieve the objectives of the study were; independent (bank restructuring), the intervening (financial services), moderating (firm characteristics) and the dependent variable (financial performance). Bank restructuring which was the independent variable had four attributes which were financial restructuring, capital restructuring, operational restructuring and asset restructuring. The mediating variable had two aspects which were deposits and customer loans and a composite variable (financial services) which was an arithmetic average of deposits and customer loans was estimated. The moderating variable had two variables which were bank size and bank

ownership. The dependent variable which was financial performance had only one attribute which was return on assets.

The theory guiding the study was the Institutional Theory which contends that institutions are structured and have a wide scope to enable provision of a wide range of services. Institutional Theory recognizes the fact that institutions tend to have established social structures and takes into account the existence of processes by which structures and authoritative guidelines are entrenched in organizations. Institutions such as banks restructure to be able them to offer more efficient financial services. Successful bank restructuring leads to increased capital levels and therefore improved bank financial performance. Many commercial banks restructure as a survival strategy and as a form of regulatory adherence. Bank restructuring is therefore undertaken within the regulatory framework of the Central Bank to enable channeling of funds from those with surplus to those with deficits through the process of financial intermediation. The theory states that firms in different economies tend to react differently to similar challenges (social, economic and political factors) constituting of an environment that provides firms with benefits for engaging in specific types of activities. The emphasize of the theory is that banks undertake their activities within the environment of information asymmetry, high transaction costs, huge monitoring costs and existence of financial sector regulations for purposes of improving profitability. Firms in the banking sector are expected to adhere to prudential regulations of the Central Bank of Kenya which in addition define the loan limits that a single borrower can access from a financial institution as well as the minimum capital requirements of the banking sector institutions. The restructuring approach a bank uses is therefore dependent on the deposits the bank intends to mobilize, the amount of loans a bank intends to lend, and the scope of financial

services a bank intends to offer if the bank has to increase its financial performance. The Positivism research philosophy guided the study because of the existence of evidence of formal propositions, quantifiable measures of variables, hypotheses testing, drawing of inferences about the relationships among the study variables. Longitudinal descriptive design was adopted in this study as there were clearly stated hypothesis and investigative questions. The study population was the 43 commercial banks and one mortgage company which offers banking services and it is therefore registered as a commercial bank.

The study relied on secondary data collected from the annual reports and accounts of commercial banks, the CBK Bank Supervision and Banking Sector Reports. The descriptive statistics in the study were the mean, standard deviation, the minimum, the maximum, standard error of estimate, skewness and kurtosis. Correlation analysis, multiple regression analysis and Baron and Kenny (1986) approach for testing the intervention and moderation of the independent and dependent variables in the hypotheses testing were employed in the study.

Objective number one was to establish the effect of bank restructuring on financial performance of commercial banks in Kenya. The findings were that generally, capital restructuring was the only attribute that had a significant positive effect on financial performance of commercial banks in Kenya. Asset restructuring was found to have a significant negative effect on financial performance of commercial banks. Financial restructuring and operational restructuring were additionally found to have no significant effect on financial performance of commercial banks in Kenya.

The second objective was to determine the moderating effect of the relationship between bank restructuring and financial performance of commercial banks in Kenya. The findings were that financial performance was explained by financial

restructuring, capital restructuring, operational restructuring, size and ownership. After moderation using size operational restructuring was found to have significant negative effect on financial performance while financial restructuring, capital restructuring and asset restructuring did not have a significant effect on financial performance. Size of banks was also not found to have a significant moderating effect on bank restructuring and financial performance. Therefore when size was used as a moderator all the variables used in the model except operational restructuring were found not to be significant. However the interaction between capital restructuring and size were found to have a significant positive effect on financial performance of commercial banks in Kenya. The interaction of financial restructuring with size, the interaction of operational restructuring using size and the interaction of asset restructuring using size did not have a significant effect on bank financial performance.

For purposes of moderating the study variables for bank ownership firms were categorized as either locally owned or foreign owned. The effect of bank restructuring on bank financial performance of locally owned banks was evaluated separately from that of the foreign owned banks. For locally owned banks, the findings were that all the independent variables (financial restructuring, capital restructuring, operational restructuring and asset restructuring) were found to significantly have an effect on financial performance. In the case of the foreign owned banks the results revealed that all the independent variables except asset restructuring had a significant effect on bank profitability. This might mean that most foreign owned banks do not have high levels of nonperforming loans which could explain lack of emphasis on asset restructuring. Surprising, just like in the case of locally owned banks, foreign banks

should emphasize on managing debt, capital and operations if they have to realize optimal profitability.

The third objective was to establish the intervening effects of financial services on the relationship between bank restructuring and financial performance of commercial banks in Kenya. Operational restructuring was found to have a significant positive effect on bank deposits while asset restructuring was found to have a significant negative effect on bank deposits. Financial restructuring and capital restructuring were not found to have a significant effect on bank deposits. As far as customer loans are concerned, it is capital restructuring and operational restructuring which had a significant positive effect on customer loans while asset restructuring had significant negative effect on customer loans. Financial restructuring was found to have no significant effect on customer loans. On aggregating deposits and customer loans to come up with a composite variable for financial services, the relationship between financial services and the independent variables revealed that only financial restructuring do not have a significant effect on financial services. Therefore, capital restructuring, operational restructuring and asset restructuring have a significant influence on financial services of commercial banks in Kenya.

The mediating effect of deposits was firstly tested. The mediating effect of deposits on the relationship between bank restructuring and financial performance reveals the existence of a strong positive relationship. Intervention using deposits reveals that there exists a significant positive relationship between capital restructuring and financial performance, of commercial banks in Kenya. Additionally intervention using deposits reveals a significant positive effect of financial restructuring on profits of commercial banks in Kenya. Operational restructuring when mediated by deposits

has a significant negative effect on bank profits. Deposits have a significant positive effect on financial performance of commercial banks.

On the contrary, mediation by deposits results to a significant negative influence of asset restructuring on bank financial performance. Therefore, when deposits mediate the relationship between bank restructuring and financial performance, financial restructuring and capital restructuring have a significant positive effect on bank financial performance while operational restructuring and asset restructuring have a significant negative effect on bank financial performance. Deposits was found to have a significant positive effect on bank profits when the relationship between bank restructuring and financial performance was mediated using deposits. The profits would increase from 10.0% to 13.4% after mediation and all independent variables and the intervening variable would become significant.

Customer loans was used as the second mediating variable. The results revealed that financial performance is significantly and positively influenced by capital restructuring and operational restructuring when intervened by customer loans. Asset restructuring on the other hand was found to have a significant negative effect on bank profitability. Financial restructuring was however found not to have a significant effect on customer loans. The intervening effect of customer loans on the relationship between bank restructuring and financial performance reveals that only capital restructuring and asset restructuring had a significant effect. However the effect of financial restructuring, operational restructuring and customer loans was not found to be significant. Therefore it is only capital restructuring that has a positive effect on bank financial performance while asset restructuring has a significant negative effect on bank financial performance when mediated by customer loans. Customer loans as a variable was therefore found to have no mediating effect on influencing profits as

estimated using the relationship between bank restructuring and financial performance. The profit levels would decrease from 10.0% to 9.9% and the same variables remain significant.

Mediating the relationship between bank restructuring and bank financial performance using a composite variable of financial services found out that only capital restructuring and asset restructuring were found to have a significant effect on financial performance. Capital restructuring was found to have a significant positive effect on financial performance while asset restructuring was found to have a significant negative effect on financial performance. Financial restructuring and operational restructuring did not have a significant effect on the financial performance of commercial banks. Financial services was found not to have a significant effect on financial performance of commercial banks in Kenya. Financial services cannot however be ignored because the statistics for testing the level of significance were in the borderline (t = 1.915 and a p –value of 0.056). Financial services were however found to mediate the relationship between bank restructuring and financial performance as the variable has a positive effect on financial performance.

Objective number four was to establish the joint effect of financial services (deposits and customer loans), size and ownership on the relationship between bank restructuring and financial performance of commercial banks in Kenya. Under this objective, two regression equations were estimated. The first regression was to test the joint effect for foreign owned banks and the second regression was to test the joint effect in the case of the foreign owned banks. In the case of locally owned banks the study results reveal that the independent, moderating, and intervening variables significantly affect profitability of the locally owned banks. There is therefore a significant relationship between financial restructuring, capital restructuring, asset

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restructuring, customer loans and size of banks on financial performance of commercial banks in Kenya. Financial restructuring, capital restructuring and bank size had a significant positive effect on bank profits while asset restructuring and customer loans had a significant negative effect on bank profits. Operational restructuring and deposits did not have a significant effect on bank profits.

In the case of foreign owned banks there is a joint effect by the independent, moderating and intervening variables as the profits increase from 10.0% (without moderation, mediation, joint effect) to 22.7% and 27.4% in the case of locally owned banks and foreign owned banks respectively (after moderation, mediation and joint effect). Only financial restructuring, capital restructuring and bank size that were found to have a significant effect on financial performance. Testing the joint effect reveals that capital restructuring had a significant positive effect on bank financial performance, financial restructuring had a significant negative effect on bank financial performance, bank size had a significant positive effect on financial performance of banks, and operational restructuring, asset restructuring, customer loans and deposits were found not to have a significant negative effect on financial performance. Therefore, operational restructuring, deposits and customer loans appear not to have a significant effect on bank financial performance when the relationship between bank restructuring and financial performance is jointly intervened by deposits and customer loans and moderated by bank size and bank ownership.

The four null hypotheses were therefore rejected by this study. This means that there is a relationship between bank restructuring and financial performance of commercial banks in Kenya. Additionally size and ownership moderated the relationship between bank restructuring and financial performance. Financial services were also able to intervene in the relationship between bank restructuring and financial performance

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and there was a joint effect on the relationship between bank restructuring and bank financial performance.

6.3 Conclusions

The study concludes that bank restructuring affects financial performance of commercial banks in Kenya. The main aspects that have a significant effect on financial performance is capital restructuring asset restructuring. This means that injecting additional capital can increase bank profitability. However increasing the asset quality by restructuring bank assets reduces profits of banks significantly. If the objective is to increase profits banks might need to rely less on operational restructuring and financial restructuring. This is because operational restructuring tend to be accompanied by overhead costs such as those associated with increasing the branch networks, increasing the number of ATMs, incorporating agency banking, costs of entrenching internet banking, mobile banking, faceless banking, RTGS and other aspects of financial innovations encompassing, product, process and institutional innovations.

Asset restructuring reduces bank profits. Reducing the nonperforming loans in the loan book tend to be associated with huge provisioning of non-performing loans which is an expense and therefore reduces bank profits significantly. This explains the negative effect of asset restructuring on profitability of commercial banks in Kenya. Incidentally, operational restructuring appears to have no significant effect on bank financial performance. This might be explained by the fact that restructuring bank operations usually has the effect of expanding the customer base and access to financial services which might not necessary be associated with profitability.

Moderating the relationship between bank restructuring and financial performance using bank size brings out operational restructuring as the only significant variable in

influencing financial performance. Bank size therefore moderates the relationship between bank restructuring and financial performance. Operational restructuring is therefore important in influencing profitability of large banks. Costs associated with enhancing bank operations to improve access to financial services should be properly managed to minimize the negative effect on bank profits

Bank restructuring is important for local banks as well as for foreign owned banks. When the relationship between bank restructuring and financial performance is moderated using bank ownership for locally owned banks all the independent variables (financial restructuring, capital restructuring, operational restructuring and asset restructuring) are significant in influencing profitability. In the case of foreign owned banks only asset restructuring was not found to be significant. This is essentially to say that bank restructuring is important in influencing profitability of foreign owned banks. Moderating bank restructuring and financial performance using both bank size and bank ownership emphasizes on the importance of bank restructuring (financial restructuring, capital restructuring, operational restructuring and asset restructuring), bank size and bank ownership as important variables that affect bank profitability. Therefore bank profitability is affected by the level of debt, capital levels, costs of bank operations, nonperforming loans, bank size and bank ownership. This possibly explains why foreign banks are more profitable than local banks, large banks tend to be more profitable than small banks, well capitalized banks are more profitable but conflict with the notion that debt is not relevant to banks because the main liability is bank deposits.

This study finds financial restructuring which focuses on the debt ratio has having a significant influence on bank profitability. However, if the objective is to enhance financial inclusion by increasing the level of outreach, banks should focus more on operational restructuring by increasing the branch network, the ATM network,

introduction of agency banking and introduction of mobile banking among others operational restructuring would be considered important but cost containment is important.

The intervening effect of deposits reveals that emphasizing on the importance of financial restructuring, capital restructuring and the intervening factor which is bank deposits. Operational restructuring is found to be important when deposits are used as an intervening variable because undertaking operational restructuring through branching, increasing the number of ATMs, introducing agency banking and other aspects of product, process and institutional innovations have cost implication which calls for prudent cost management associated with operational restructuring. Using customer loans as the only intervening variable recognizes only financial restructuring and capital restructuring as the only important aspects that plays an important role in influencing profitability of banks.

Mediating the relationship between bank restructuring and financial performance of banks using both deposits and customer loans as an aggregate of financial services brings out the important factors that are important in influencing profitability as capital restructuring and asset restructuring. Although financial services are the core business that explains the existence of financial institutions they tend to be associated more with operational restructuring and improving access to financial services other than contributing to profits deposits. Capital levels of banks are important in influencing financial performance of banks as this variable was found to significantly influence financial performance even when the relationship was moderated (by size and ownership) and intervened (by financial services). However where the objective of a bank is to increase access to financial services, banks should focus more on financial restructuring, capital restructuring and operational restructuring.

Addressing bank debt levels by banks is important. Additionally focusing on deposits is important in increasing bank profitability. An increase in loans was found to have a positive effect on financial performance. This situation only holds if the loans extended to customers are of high quality. However if the loans are of low quality because of instances of high levels of nonperforming loans, this might call for asset restructuring through increased loan provisioning, which by extension tend to have a negative effect on profits. This is because provision for nonperforming loans is an expense which is charged against income of the banks. Increased deposits enabled commercial banks to extend more loans because increased deposits increases the amount of loanable funds.

The joint effect of firm characteristics and financial services on the relationship between bank restructuring and bank financial performance reveals that banks need to only concentrate on financial restructuring, capital restructuring and bank ownership but on other types of bank restructuring as well. Whereas increasing the debt levels and capital levels can increase profitability, focusing too much on ownership can reduce profitability of banks. However, if the objective is to expand the scope of access to financial services, banks should focus more on operational restructuring through installing more ATMs, increasing the branch network and enhancing the agency banking activities, but are likely to realize lower profits because of the associated costs or expenses associated with operational restructuring.

Bank size was found to influence the deposit base as large banks tended to have larger deposits than smaller banks possibly explained by the fact that large banks tend to have a bigger asset base than smaller banks. The larger the asset base, the greater the amount of the loans that commercial banks can extend to their customers and the more the deposits the banks are able to attract. The bigger the banks the higher the volume and value of financial services such banks are likely to offer. Foreign owned

banks are generally more profitable than locally owned banks. It is important to appreciate that although customer loans did not appear to have a significant influence on bank profits big customer loans increases bank profits. Large banks tend to have a bigger outreach and are therefore able to provide more financial services than smaller banks. Foreign banks usually spearhead the process of financial innovation and bank restructuring and they therefore tend to be more profitable than locally owned banks.

6.4 Contribution of the Study to Knowledge

The overall contribution of the study is the finding and conclusion that bank restructuring does lead to improved financial performance. The findings however reveal that capital restructuring contributes most to financial performance possibly explaining why commercial banks embark on capital adjustment by way of capital injection whenever banks experience financial crisis. The disappointing revelation that bank restructuring only contribute to 10.0% of the profits of commercial banks is a pointer that whenever commercial banks are keen on significantly increasing financial performance, they should focus on other factors other than having to rely on bank restructuring. This contradicts the theory of financial intermediation that contends that for commercial banks to improve their financial performance, they need to improve their operations through improved processes, institutional capacity building and institutional innovation, as well as coming up with new products and services to increase their market share and therefore capture a wider customer base. This only explains outreach but also enhances financial inclusion but does not increase financial performance.

To continuously improve financial performance and avoid instances of capital restructuring following a banking crisis, banks need to continuously restructure their operations by increasing their branches, widening their ATM network and emphasis

on agency and mobile banking to enhance financial inclusion. The study rejected the hypothesis that size and ownership as indicators of firm characteristics have a moderating effect on the relationship between bank restructuring and financial performance. This emphasizes the fact that large banks, medium size banks and small banks can record high performance. Equally, locally owned banks, privately owned banks, publicly owned banks and banks exhibiting other types of ownership characteristics can report high profitability. This concurs with practice in Kenya where not only large banks, but small and medium size banks also report high profits. Additionally, the theory that only foreign owned banks report the highest profits because of the fact that they are able to import expertise from abroad is contradicted by these findings since even locally owned banks can hire professionals from abroad, be properly managed and be able to earn profits within the levels earned by foreign owned banks. Therefore size and ownership as indicators of firm characteristics do not interfere with the ability of restructured banks to generate profits especially if banks are well capitalized.

The results of the study were that size of banks had a positive relationship with bank restructuring. The empirical findings contributes to knowledge in that it tends to support the aspect of the theory of financial intermediation that argues that financial institutions, like banks, must focus on transaction cost minimization. The findings also support the agency theory which states that managers would pursue growth opportunities if it is evident that the organization will be more efficient and therefore improve profitability. Banks that are more efficient tend to be more profitable than banks that are inefficient.

Deposit which was one of the intervening variables increases profitability of commercial banks. This in line with the expectation that banks with a large deposit base tend to attract more customer base particularly the relatively large customers.

These banks therefore also tend to be the relatively large banks which tend to have more outreach. Customer loans which was the other intervening variable was not found to have a significant effect on financial performance of commercial banks in the joint relationship. This is in line with practice that the more the loans extended, the higher the profits so long as the loans extended will be repaid. Where a significant amount of loans ends up being non-performing, the level of loans however large in volume does not lead to increased profits. Bank restructuring tends to lead to an increase in deposits and an increase in bank loans. Specifically, operational restructuring tend to lead to improved processes such as improving the level of ICT, increased financial services such as the introduction of agency banking, increased ATM network, a wider branch network as well as improved processes and procedures of effecting transactions. Bank restructuring therefore support the concept of financial deepening and financial inclusion which contends that financial institutions are expected to provide services to their clients and that increase in financial services and financial institutions are expected to deepen the financial markets. While deposits of commercial banks did not mediate the bank restructuring and profitability, the study found out that the existence of significant relationships between specific characteristic variables are important in influencing bank financial performance.

This study recognizes the importance of the financial intermediation theory, agency theory and institutional theory. The three theories were used as a basis of this study on bank restructuring. Whereas this study was anchored in the Institutional Theory, the theories of financial intermediation and agency were also found to contribute to this study in that banks are financial intermediaries. Banks restructure so as to enhance their role of financial intermediation. Banks also employ managers who are agents and they are charged with the responsibility of overseeing the restructuring process. Therefore the concepts underlying the financial intermediation theory and agency

theory were also borrowed heavily in laying the foundation of this study in addition to the Institutional Theory.

6.5 Recommendations for Policy and Practice

The implications for policy in Kenya and other countries with banks are that as size is positively related to bank restructuring and profitability, then there would be need to institute policy reforms geared towards increasing the size of banks either internally by increasing their asset size or through mergers to expand their size. The regulator can also embark on setting a minimum size threshold with a view to significantly reducing the number of banks which would translate into the remaining ones becoming larger. The few larger banks will through bank restructuring increase their scope of provision of financial services and improve stability of the banking sector.

The study found that banks undertake all the types of bank restructuring under study, that is financial restructuring, capital restructuring, operational restructuring and asset restructuring. Although capital restructuring appeared to have the highest effect on profitability of commercial banks, the effect of bank restructuring on the level of financial inclusion and financial deepening is important which might be a wakeup call for banks to embark on operational restructuring which would improve financial deepening and increase the level of financial inclusion.

The finding that if the purpose is to establish the relationship between bank restructuring and financial performance only identified capital restructuring as the main predictor variable. However when the moderating and mediating variables were introduced into the relationship, the findings were that bank restructuring as mediated by loan and deposits have a significant effect on the financial performance of commercial banks in Kenya. This means that for commercial banks to improve performance, there might be need to focus on more than one aspect at a time. One

single factor may not significantly improve financial performance. Managers of banks need to evaluate a multiplicity of factors if they have to realize increased profits. The study found out that deposits and customer loans increase financial performance. The quality of loans should be emphasized on while focusing on the amount of customer deposits to realized increased profitability.

While financial innovations is important for the banking sector, financial services tend to enhance financial inclusion. In addition to increasing the scope of financial services extended by banks (through operational restructuring) they need to focus on capital restructuring to increase profitability.

The Central Bank of Kenya recommends restructuring of banks either to improve financial performance or as a measure to salvage problem banks. The regulatory authority however gives the individual banks the leeway to identify the types of bank restructuring to use and many banks tend to focus more on capital injection as the main bank restructuring approach. The Central Bank however need to specifically recommend the particular restructuring approach which is workable for individual banks since they are unique in terms of individual characteristics such as ownership and governance issues. There are therefore instances when strategic bank restructuring might need to be used together with other types of bank restructuring. Additionally undertaking capital restructuring to increase profitability might require in addition increasing the asset base of the banks to realize a significant increase in profitability.

Bank restructuring is a current practice in the Kenya banking sector. Bank restructuring is however expected to increase the level of outreach while contributing to profits. If banks concentrate more on outreach at the expense of financial performance then the benefits that are expected to be realized from bank restructuring

are compromised. Banks therefore need to strike a balance between enhancing their operations through operational restructuring or improving profits by focusing on aspects that have a direct positive effect on profits.

6.6 Limitations of the Study

The study relied on a cross sectional, descriptive study design. The research design has the advantage of requiring lower resource inputs of time and money, while at the same time yielding results that are useful especially in establishing existence and direction of relationships among variables. The disadvantage of the design is however that while it can establish the direction and significance of relationships, it cannot determine causality. While the study established among other variables the relationships between bank characteristics and financial services, the study did not establish causal relationships. Nevertheless, the results are useful as they establish the basis to enable interested researchers to determine causality.

Another limitation of the study is that it used regression analysis for determination of the relationships between bank restructuring and financial services and between firm characteristics and bank financial performance. Regression analysis has the limitation that only quantifiable factors are included in the analytical model. Non quantifiable factors however important are not included in the analytical model. However, regression analysis has the advantage of enabling the researcher to estimate the strength of the relationship by estimating the coefficient of determination. The coefficient of determination establishes the proportion of the dependent variable explained by the independent variable. To specify a valid econometric production function would require the estimation out of extensive econometric and engineering studies.

The Baron and Kenny (1986) stepwise methodology recommends that only the variables found in the first regression equation should be included in the subsequent equations. The stepwise methodology also recommends that where none of the independent variables are found significant in the first model, they should all be dropped from subsequent equations such that only the moderating and mediating variables would then be regressed against the dependent variable. However introducing the moderating and the intervening variables might mean the variables which were initially insignificant becomes significant. In this study introducing deposits in the model in which operational restructuring was not significant increased the level of significance of the independent variable.

6.7 Suggestions for Further Research

In order to overcome the study limitation of not having established causality between variables such as size and ownership, bank restructuring if disaggregated to narrow down to only capital restructuring can contribute significantly to profitability. Although it would be a one independent variable relationship, other factors other than bank restructuring can be included in the model to identify other factors that contribute more to profits. Although this might require substantial resources the output would be useful in identifying the factors that have a high explanatory power as far as profits are concerned.

The understanding of the nature, direction and the strength of the relationship between independent and dependent variables is improved by the introduction of a moderating variable. This study can be continued in an endeavor to determine the appropriate moderating variables between bank restructuring, such as operational restructuring as explained by a wide branch network, wider ATM network, mobile banking, expanded

agency banking and existence of other modes of improving operations of the banking sector can in the long-run lead to improved financial performance.

The study employed regression analysis in establishing the relationship between variables of bank restructuring and financial performance. If sufficient resources are available, it may be useful to carry out a detailed investigation of the determinants of bank restructuring as well as determinants of financial performance of banks using financial econometrics methods and logit models.

One of the research gaps that this study had endeavored to fill was to determine statistically the existence of intervening variables, financial services as proxied by deposits and loans and their effect on the relationship between bank restructuring and financial performance. The choice of bank restructuring had been based on a review of the literature. Bank deposits and loans ended up being significant intervening variables. This is not however to say that other factors are not important in mediating the relationship suggesting that other researchers should attempt to identify and test other intervening variables on the relationship between bank restructuring and financial performance.

The results indicated that financial restructuring and operational restructuring have insignificant relationship with financial performance in the absence of moderating and intervening effect. It might be necessary to consider other types of bank restructuring undertaken by commercial banks including strategic bank restructuring, merger restructuring, human resource restructuring and other types of firm restructuring to determine if they have an effect on bank financial performance and test the level of significance of the additional types of bank restructuring.

Various financial services offered by banks that were identified by this study were, extending loans to customers and accepting deposits. Other financial services that

were identified include; expanding the branch network, expanding the ATM network, introduction of agency banking, existence of POS terminus, entrenchment of bancassurance services, introduction of KEPSS, introduction of currency centres, improving ICT services in the banking sector and establishing institutional linkages among others. Using these as proxies of financial innovations a questionnaire can used to establish the influence of the financial services that were not included in the analytical model in this study on bank financial performance and other banking activities.

A comparative study of the financial impact of the financial services on operational bank restructuring should be established using a questionnaire. It is considered that this would be very informative and it is suggested that an alternative analytical model be used to establish the relationship between operational restructuring and financial innovation as proxied by expanding the branch network, expanding the ATM network, introduction of agency banking, existence of POS terminus, entrenchment of bancassurance services, introduction of KEPSS, introduction of currency centres, improving ICT services in the banking sector and establishing institutional linkages. The logit or probit models can then be used to establish the relationship between the study variables. Despite the importance of operational costs in financial institutions operational restructuring was found not to have a significant effect on bank financial performance. The expectation was that operational restructuring would have a significant negative effect on financial performance which was not the case.

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APPENDICES

Appendix I: Required Secondary Data

Commercial Bank ………………………….………….

Variable	Year							
Dependent	2002	2003	2004	2005	2006	2007	…….	2014
Profit before tax								
Total assets								
Independent Variables								
Financial restructuring								
Long-tern debt								
Long-term debt								
Total assets								
Capital restructuring								
Equity capital								
Equity to total assets								
Total assets								
Operational								

restructuring							
Number of branches							
Change in number branches							
Number of ATMs							
Change in ATMS							
Average of change in branches and change of ATMs							
Composite index							
Total operating costs							
Total income							
Cost to income ratio							
Asset restructuring							
NPLs							
NPLs to total							

loans							
Intervening Variable							
Customer loans							
Deposits							
Capital to deposit ratio							
Change in capital to deposit ratio							
Moderating variable							
Size							
Total assets							
Ownership							
Ownership was categorized as either local or foreign							

Source: Author, 2017

Appendix II: List of Commercial Banks in Kenya

1. Barclays Bank of Kenya Ltd

2. African Banking Corporation Ltd

3. Commercial Bank of Africa Ltd

4. Standard Chartered Bank (K) Ltd

5. Bank Of Africa (K) Ltd

6. Co-operative Bank of Kenya Ltd

7. Bank of Baroda (K) Ltd

8. Bank of India

9. CFC Stanbic Bank (K) Ltd

10. Diamond Trust Bank (K) Ltd

11. Charterhouse Bank Ltd

12. K-Rep Bank Ltd

13. Citibank N.A. Kenya

14. Family Bank Ltd

15. Chase Bank Ltd

16. Consolidated Bank of Kenya Ltd

17. Development Bank of Kenya Ltd

18. Credit Bank Ltd

19. Dubai Bank Ltd

20. Fidelity Commercial Bank Ltd

21. Ecobank Kenya Ltd

22. Gulf-Africa Bank Ltd

23. Giro Commercial Bank Ltd

24. Equatorial Commercial Bank Ltd

25. Equity Bank Ltd

26. First Community Bank Ltd

27. Guaranty Trust Bank Ltd

28. Guardian Bank Ltd

29. Jamii Bora Bank Ltd

30. Habib Bank Ltd

31. Housing Finance Company of Kenya Ltd

32. Habib Bank A.G. Zurich

33. I & M Bank Ltd

34. Victoria Commercial Bank Ltd

35. Imperial Bank Ltd

36. Kenya Commercial Bank Ltd

37. UBA Kenya Ltd

38. Middle East Bank (K) Ltd

39. National Bank of Kenya Ltd

40. NIC Bank Ltd

41. Paramount Universal Bank Ltd

42. Oriental Commercial Bank Ltd

43. Prime Bank Ltd

44. Trans-National Bank Ltd

Source: Central Bank of Kenya (2014)

Appendix III: Commercial Banks & Mortgage Finance Shareholding

Information

I. Institutions in Terms of Shareholding

a) Foreign owned institutions

i) Foreign owned not locally incorporated

- Bank of India

- Citibank N.A. Kenya

- Habib Bank A.G. Zurich

- Habib Bank Ltd.

ii) Foreign owned but locally incorporated institutions (Partly owned by locals)

- Bank of Baroda (K) Ltd.

- Barclays Bank of Kenya Ltd.

- Diamond Trust Bank Kenya Ltd.

- K-Rep Bank Ltd.

- Standard Chartered Bank (K) Ltd.

- Ecobank Ltd

- Gulf Africa Bank (K) Ltd

- First Community Bank

iii) Foreign owned but locally incorporated institutions

- Bank of Africa (K) Ltd.

- UBA Kenya Bank Limited

b) Institutions with Government participation

- Consolidated Bank of Kenya Ltd.

- Development Bank of Kenya Ltd.

- Housing Finance Ltd.

- Kenya Commercial Bank Ltd.

- National Bank of Kenya Ltd.

- CFC Stanbic Bank Ltd.

c) Institutions locally owned

- African Banking Corporation Ltd.

- Jamii Bora Bank Ltd.

- Commercial Bank of Africa Ltd.

- Co-operative Bank of Kenya Ltd.

- Credit Bank Ltd.

- Charterhouse Bank Ltd.

- Chase Bank (K) Ltd.

- Dubai Bank Kenya Ltd

- Equatorial Commercial Bank Ltd.

- Equity Bank Ltd.

- Family Bank Ltd.

- Fidelity Commercial Bank Ltd.

- Fina Bank Ltd.

- Giro Commercial Bank Ltd.

- Guardian Bank Ltd.

- Imperial Bank Ltd.

- Investment & Mortgages Bank Ltd.

- Middle East Bank (K) Ltd.

- NIC Bank Ltd.

- Oriental Commercial Bank Ltd.

- Paramount Universal Bank Ltd.

- Prime Bank Ltd.

- Trans-National Bank Ltd.

- Victoria Commercial Bank Ltd.

Source: Central Bank of Kenya (2014)

Appendix IV: Scatter Plots
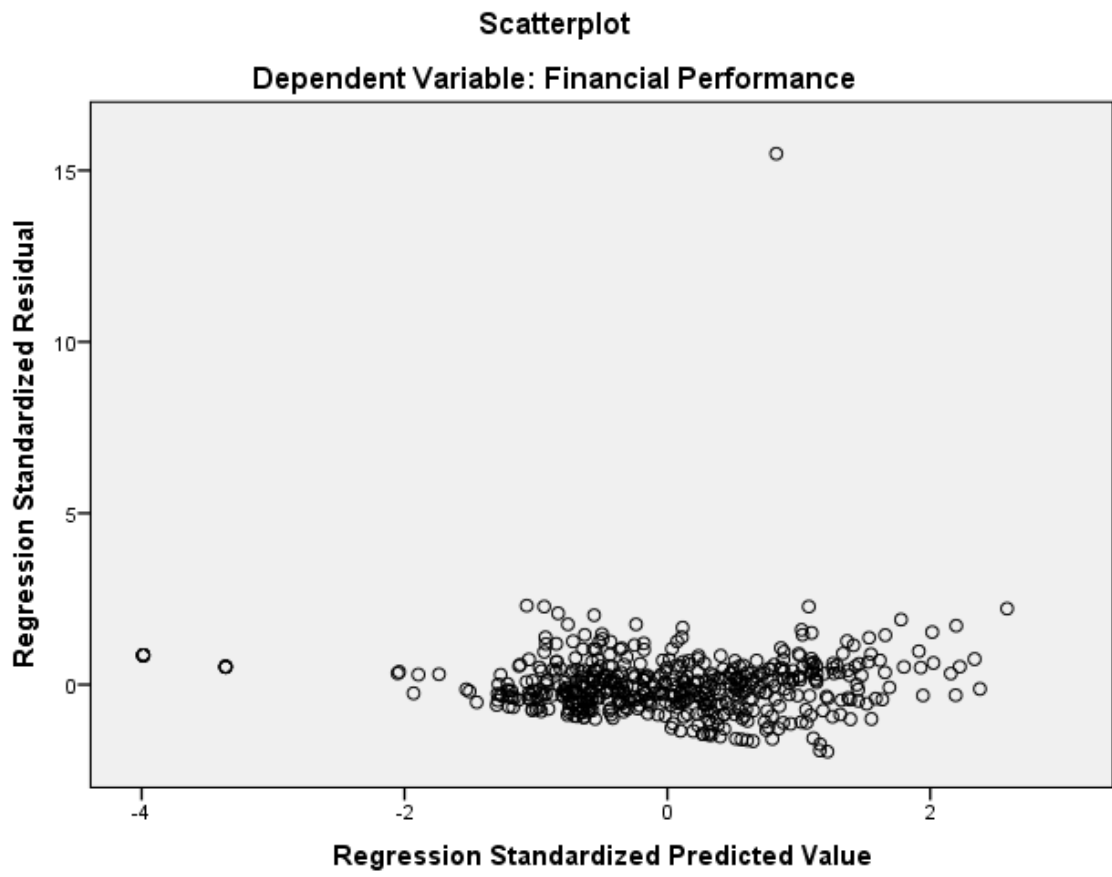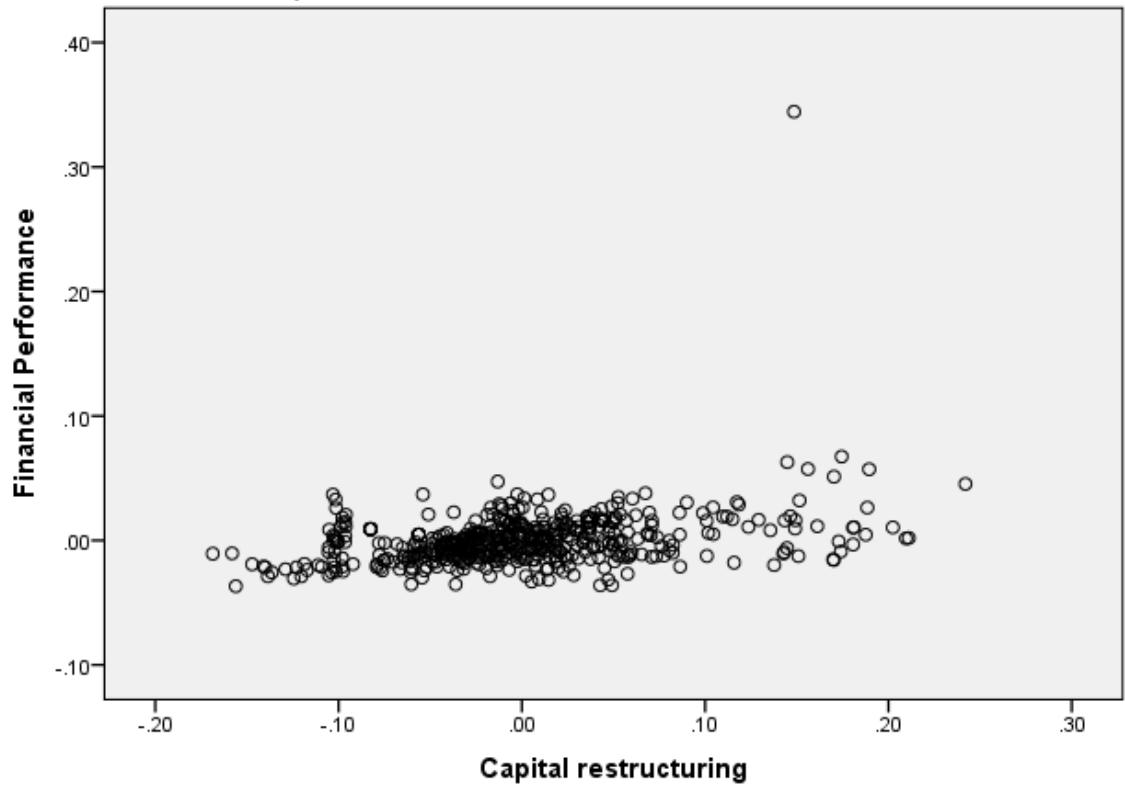
Scatterplot

Dependent Variable: Financial Performance

Partial Regression Plot

Dependent Variable: Financial Performance

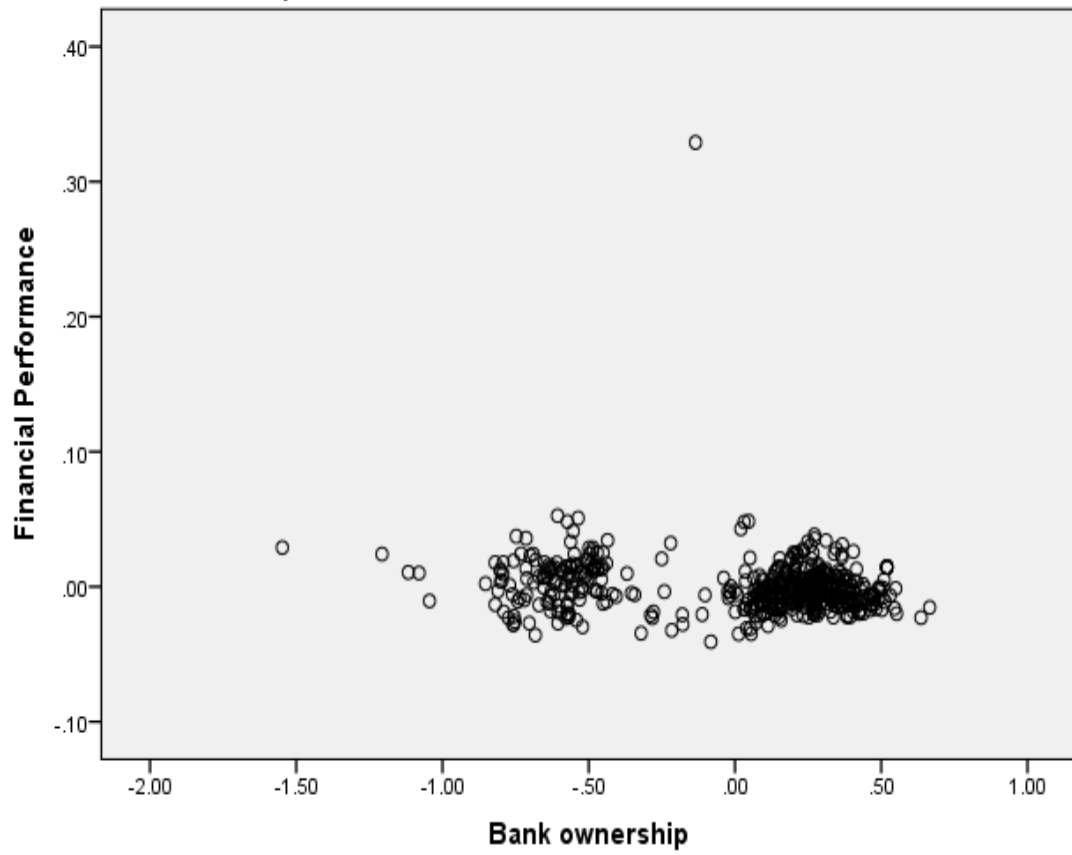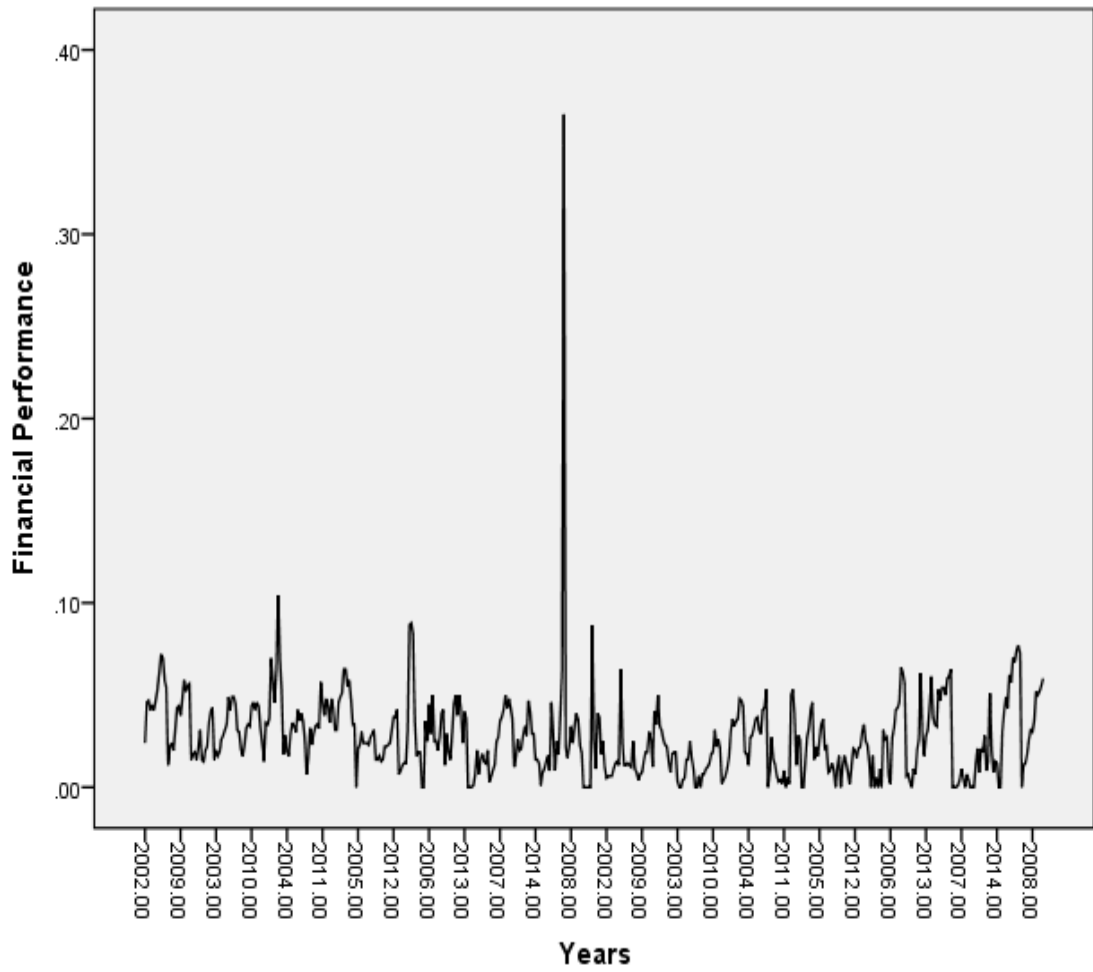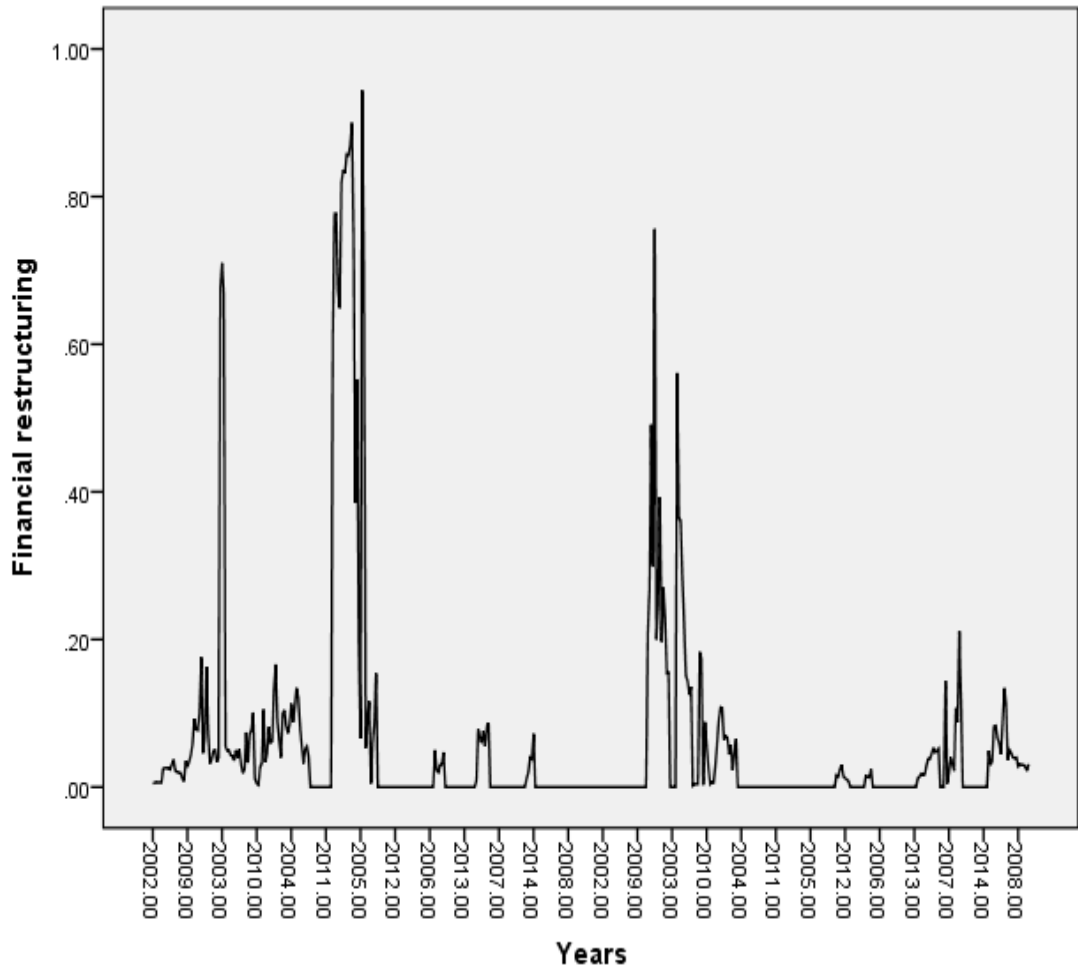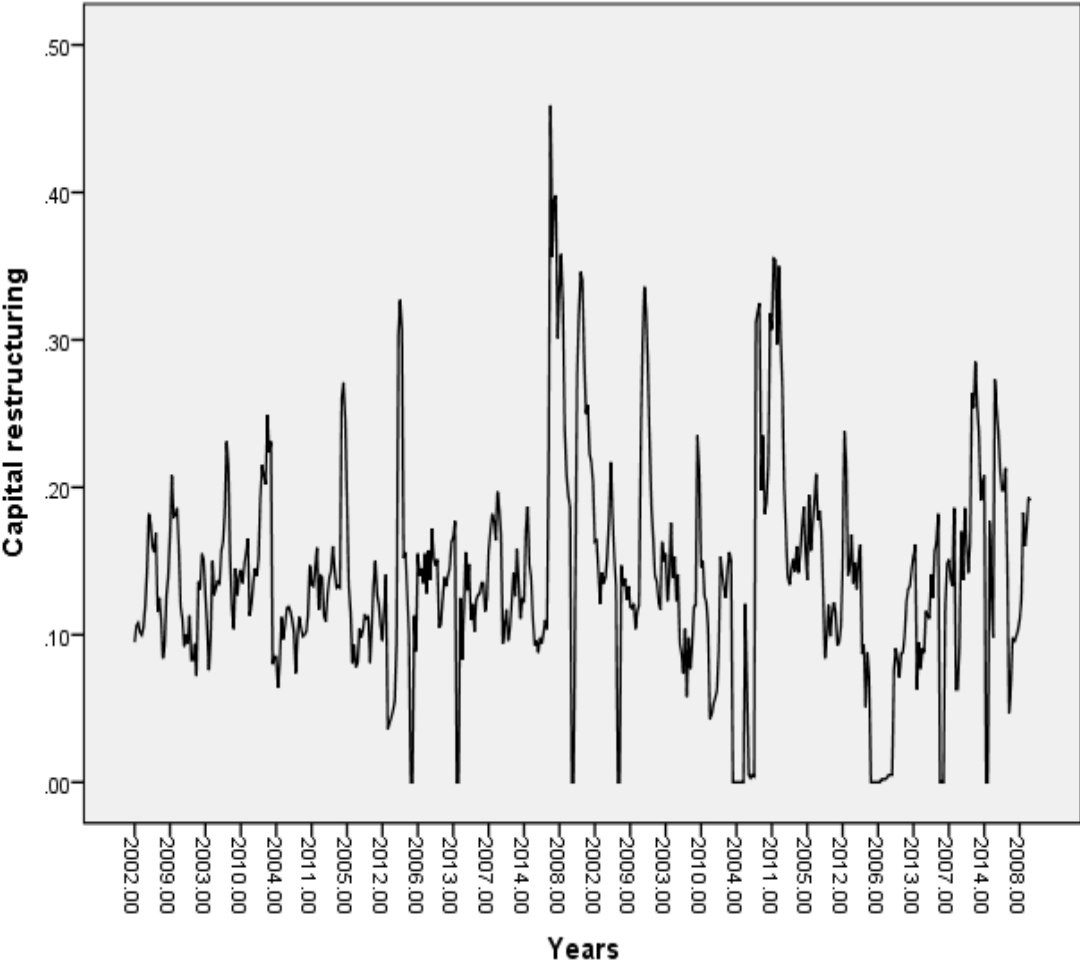## Partial Regression Plot

Dependent Variable: Financial Performance
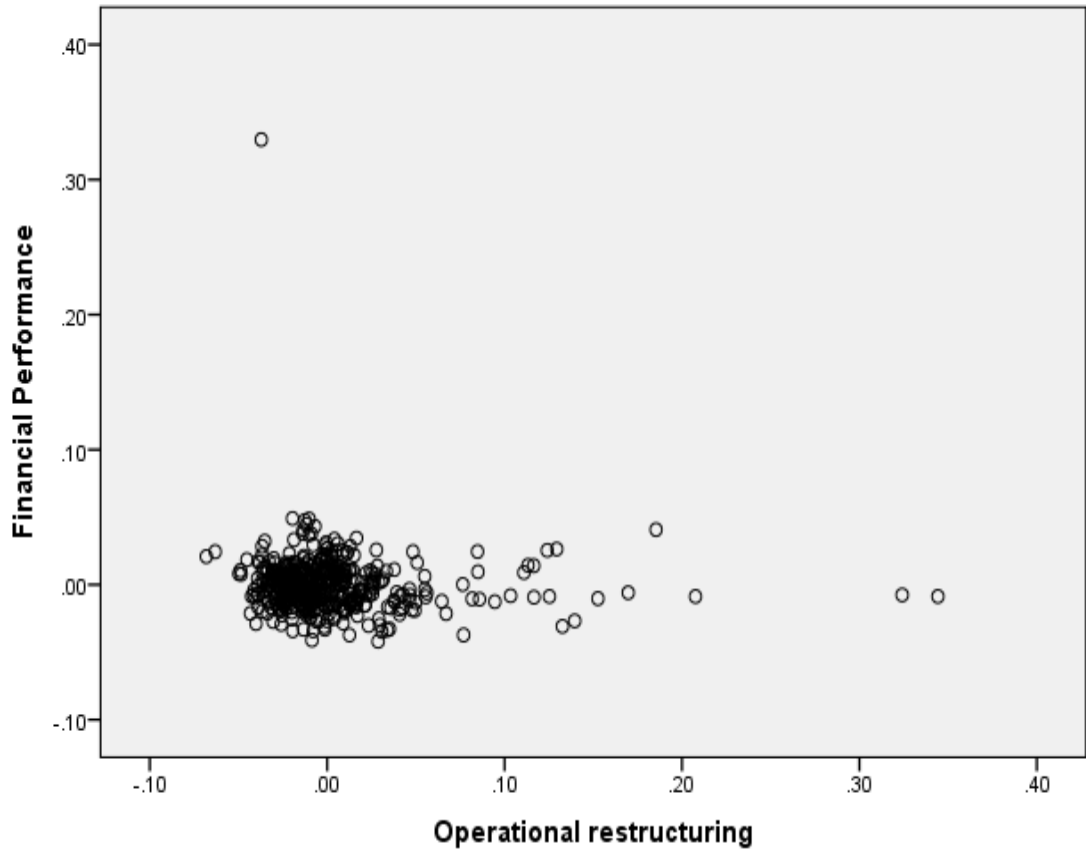
Partial Regression Plot

Dependent Variable: Financial Performance
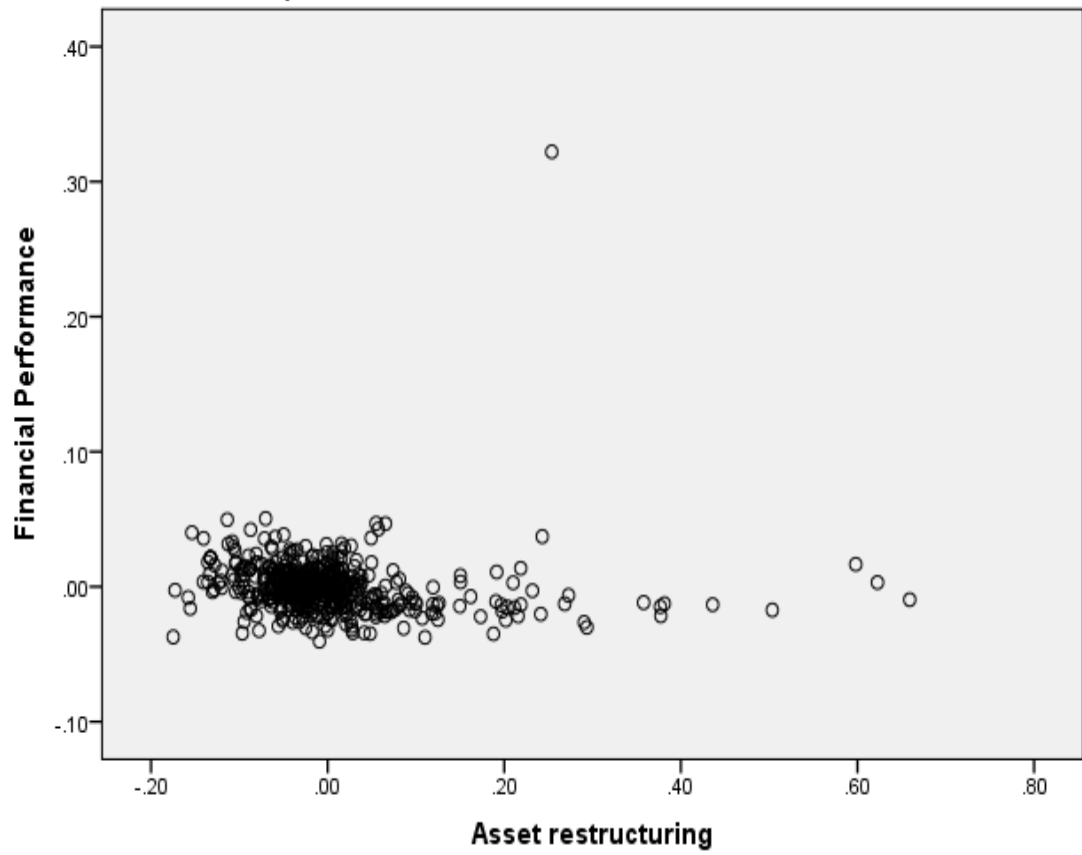
Partial Regression Plot

Dependent Variable: Financial Performance
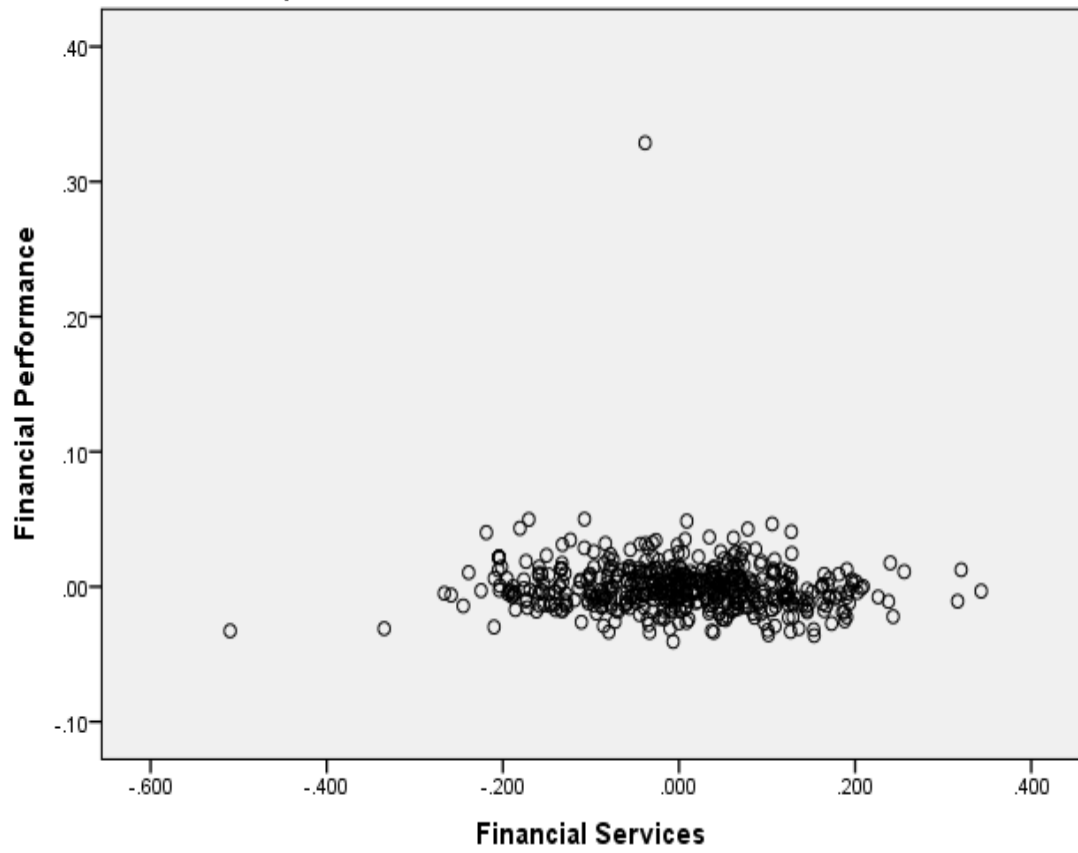
Partial Regression Plot

Dependent Variable: Financial Performance
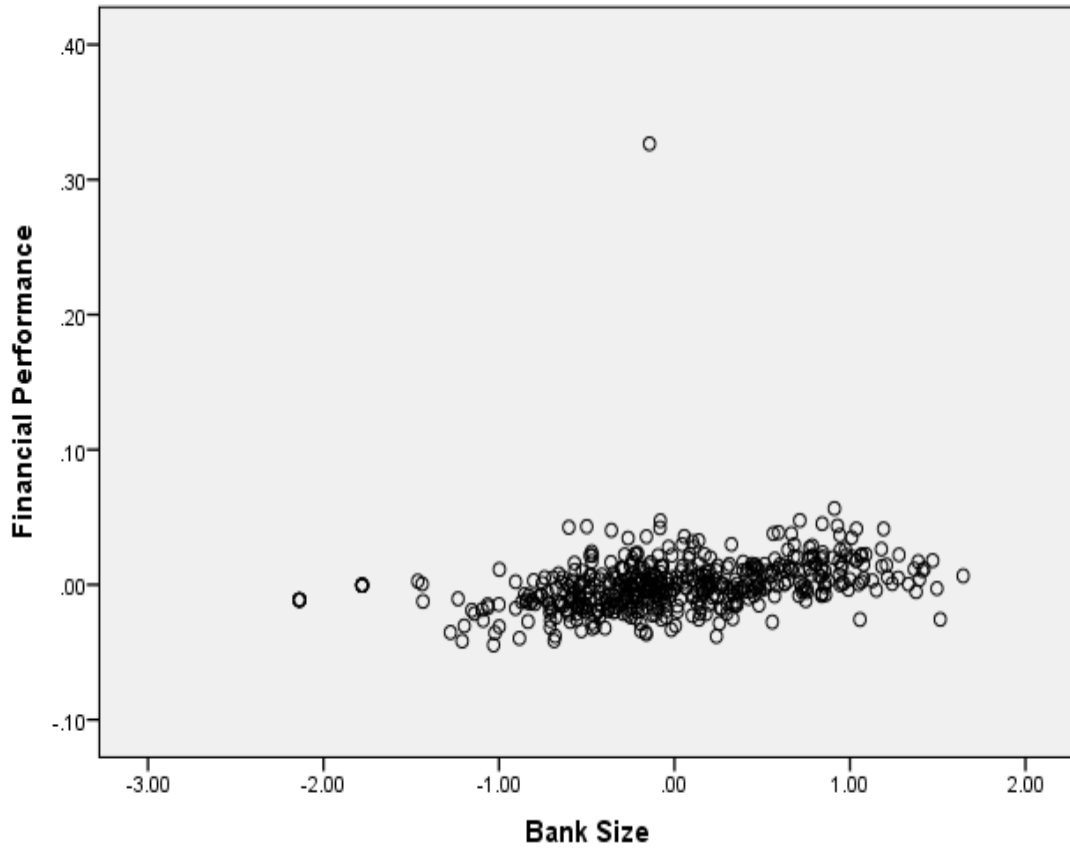
Partial Regression Plot

Dependent Variable: Financial Performance

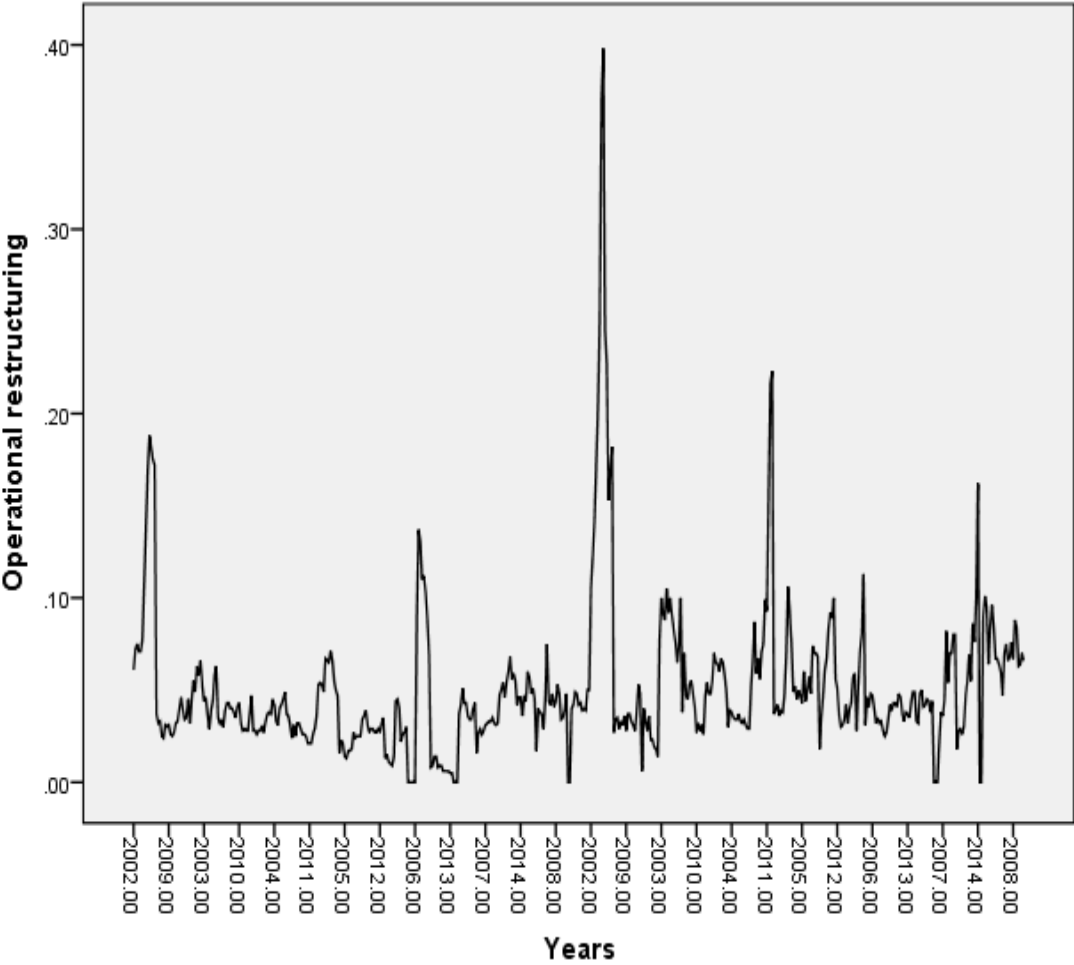**Appendix V: Stationarity Tests**

Financial Performance
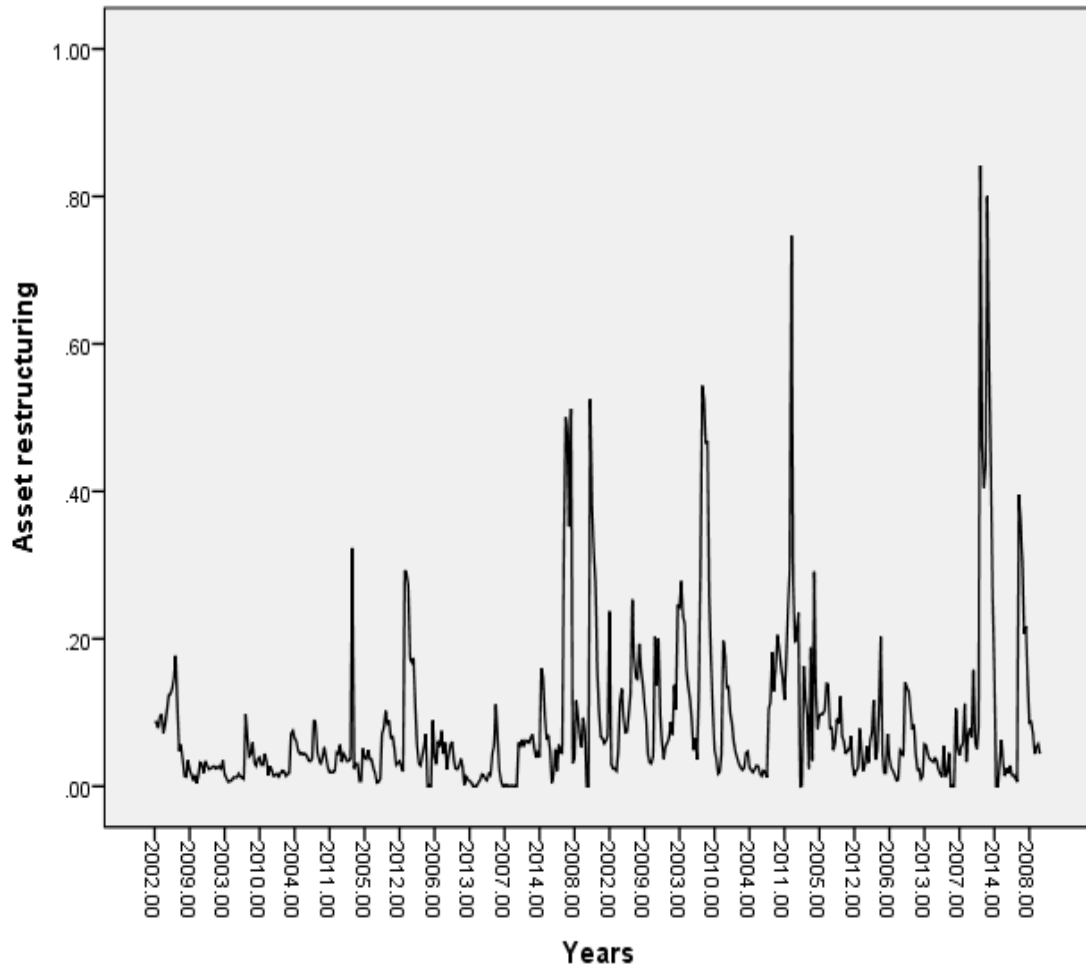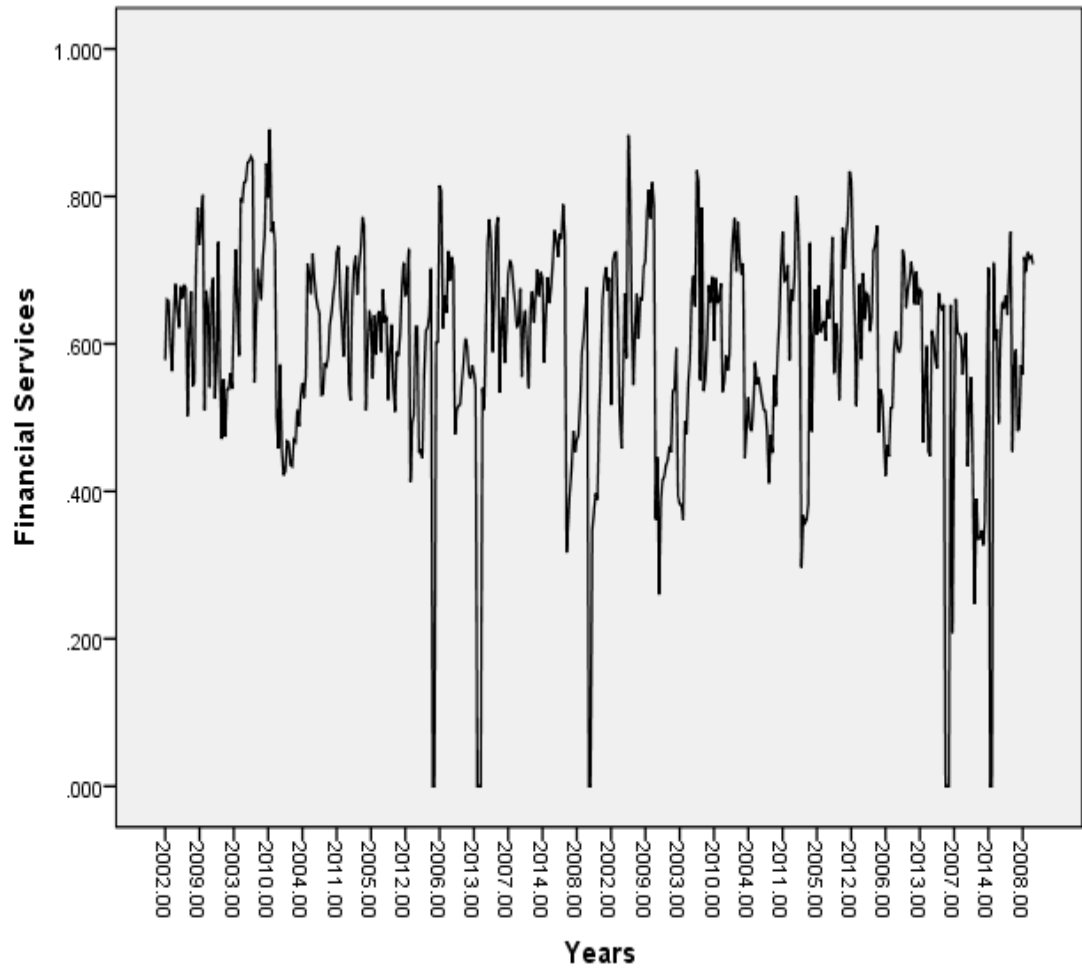
Financial Restructuring

Capital Restructuring

Operational Restructuring

Asset Restructuring

Financial Services

Bank Size