DETERMINANTS OF FINANCIAL DEVELOPMENT IN KENYA

CHARLES NDALU

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Determinants of Financial Development in Kenya

Charles Ndalu

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

Signature…………………………………………… Date ……………………………..

       Charles Ndalu

This thesis has been submitted for examination with our approval as University Supervisors.

Signature…………………………………………… Date ……………………………..

       Prof. Willy Muturi, PhD

       JKUAT, Kenya

Signature…………………………………………… Date ……………………………..

       Prof. Gichuhi A. Waititu, PhD

       JKUAT, Kenya

Signature…………………………………………… Date ……………………………..

       Dr. Mouni G. Gekara, PhD

       East Africa University, Kenya

DEDICATION

I dedicate this thesis to my late mother Margaret Nanyama Wasike for her inspiration. May her soul rest in eternal peace.

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ACRONYMS/ ABBREVIATIONS

AFC - Agricultural Finance Corporation

CBK - Central Bank of Kenya

CIS -Credit Information Sharing

CMA - Capital Market Authority

DFI - Depository Financial Institutions

FinAccess - Financial Access

FSSR - Financial Sector Stability Report

FD - Financial Depth

FMI -Financial Markets Infrastructure

GDP - Gross Domestic Product

IMF -International Monetary Fund

IRA - Insurance Regulatory Authority

KNBS - Kenya National Bureau of Statistics

KPOSB - Kenya Post Savings Bank

MFIs - Micro Finance Institutions

MP - Market Price

M-PESA - Mobile Phone Money transfer

NFC   -Near Field Communication

RGDP   - Real Gross Domestic Products

ROK   -Republic of Kenya

ROSCA   - Rotating Savings and Credit Associations

SACCOs - Savings and Credit Cooperative Societies

SASRA   - Sacco Society Regulatory Authority

SPSS   - Statistical Package for Social Sciences

SSA   - Sub Saharan Africa

OECD   **-**Organization for Economic Cooperation and Development

DEFINITION OF TERMS

Financial development: Financial development is a progress in financial sector in terms of depth, efficiency, accessibility and stability (World Bank, 2012). Financial sector development thus occurs when financial instruments, markets, and intermediaries ease the effects of information, enforcement, and transactions costs and therefore do a correspondingly better job at providing the key functions of the financial sector in the economy

Institutionalization: Economic institution as "a set of rules, compliance procedures and moral and ethical behavioral norms designed to constrain the behavior of individuals in the interests of maximizing the wealth or utility of principals (North, 1981 &1990). Institutional quality improves with the limitations imposed on executive power. Such limitations may be either formal rules or informal constraints and their strength is shaped by the characteristics of enforcing them.

Financial Openness: Financial openness is a state whereby a financial system develops and becomes more sophisticated by opening up to foreign capital and becoming more closely integrated with foreign financial systems (Estrada, Park & Ramayandi, 2015).

Economic Growth: IMF (2012) defines economic growth as the increase in the inflation-adjusted market-value of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in

real gross domestic product, or real GDP, usually in per capita terms.

Trade Openness: Trade openness is an outward or inward orientation of a given country's economy (Hardinson, 2015). It measures economic policies that either restrict or invite trade between countries.

ABSTRACT

The purpose of the study was to establish the determinants of financial development in Kenya. The study specifically focused on the effects of: Firm-specific institutional quality, financial openness, economic growth and trade openness on financial development of financial institutions. The study also assessed the moderating effect government policies on the relationship between financial development and its determinants in Kenya. The study employed descriptive research design for a selected period of seven years covering 2010 to 2015 with a target population of the 236 financial institutions. Stratified sampling was adopted which was appropriate for getting a sample from the heterogeneous population given that the financial sector had different institutions offering different financial services. Primary data was collected through self-administered questionnaires send to the managers of the various financial institutions. Also secondary data was collected from Kenya National Bureau of Statistics, Central Bank of Kenya, Insurance Regulatory Authority and Capital Market Authority. Data analysis was done using statistical package for social science (SSPS). Descriptive statistic were used to present the findings of the study supported by Analysis of Variance (ANOVA), Multiple Regression and Correlation Analyses being undertaken to test the hypotheses and provide inference. The variables namely institutional quality, financial openness, economic growth and trade openness were found to determine the financial development in Kenya. However, trade openness was not statistically significant. Further, the effects of the determinants on financial development were seen to be heavily moderated by government policies. The study recommended strengthening of institutions (in terms of credit risk management, financial structure and corporate governance/management efficiency), pursuance of expansionary policies by government to spur economic growth, attracting foreign investment in financial institutions and increasing external trade volumes by opening up more of the Kenyan economy.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The study of determinants of financial development has become a subject of interest to many researchers. The motivation of this, is the mounting evidence that financial development leads to economic growth (Levine, Loayza & Beck, 2000; Levine, 2003; Rajan & Zingales, 2003). The main rationale for linking financial development to economic growth is that developed financial systems perform critical functions that enhance the efficiency of intermediation through reduction of information, transaction and monitoring costs (Levine, 2004).

A large body of evidence suggests that financial sector development plays a huge role in economic development. It promotes economic growth through capital accumulation and technological progress by increasing the savings rate, mobilizing and pooling savings, producing information about investment, facilitating and encouraging the inflows of foreign capital, as well as optimizing the allocation of capital (World Bank, 2012). Financial intermediation mobilises and allocates savings and resources to the most appropriate investment projects. It also promotes the rate of technical advancement through identifying and financing entrepreneurs with the best chances of successfully initiating new products and processes, monitoring managers of organizations by promoting sound corporate governance, providing insurances and sectoral and inter temporal pooling of risks.

The link between finance and growth has received a lot of attention. Tracing the history to Bagehot (1873) study on the relationship between financial systems and economic growth, established that capital market was the easiest route for accumulation of capital and management of risks particularly investment risks. Schumpeter (1911) further affirmed the theory by pointing out the role of bankers, through targeting of and

financing entrepreneurs, encouraged the technological innovation, capital accumulation and consequently growth. Later Abu-Bader and Abu-Qarn (2008) indicated the importance of the relationship by pointing out the North African countries financial reforms in 1980s meant to speed up the growth rates.

Many scholars agree on the finance-growth nexus. For instance Stiglitz (1994) argued that financial development contributes to poverty eradication and helps in bridging the inequality gap. The augmented interest in the link between financial development and poverty reduction can be attributed to developing countries designing and implementing economic growth strategies that result in poverty reduction. Market failure and financial market imperfections are the main causes of poverty as they usually prevent poor people from borrowing against future earnings to invest, thus addressing the causes of financial market failure presents better prospects for poor people. This calls for a sound, efficiency, all-inclusive and deepened financial system. Many countries have responded to this by crafting development blue prints that well articulates the financial system expansion needs.

Guryay et al. (2007) differed by arguing that even though a growing body of work reflects the close relationship between financial development and economic growth it is possible to encounter empirical researches evidencing all possibilities as positive, negative, no association or negligible relationships. Literature survey puts forward three viewpoints concerning the potential importance of finance in economic growth. While the first one of these considers finance as a critical element of growth (Schumpeter, 1911; McKinnon, 1973; Shaw, 1973; King & Levine, 1993a, 1993b), finance is regarded as a relatively unimportant factor in growth according to second view (Robinson, 1952; Lucas, 1988; Stern, 1989). Finally third view concentrates on the potential negative impact of finance on growth (Van Wijnbergen, 1983; Buffie, 1984). Parallel to these views, empirical studies of the effects of financial development on economic growth have produced mixed evidences showing specially no role or positive relationship (Xu, 2000). Other studies did not find it plausible the existence of causality that runs from financial intermediary development to economic growth due to independent factors

(Neusser & Kugler, 1996; Berthelemy & Varoudakis, 1998; Ram, 1999; Sinha & Macri, 2001).

Further, scholars like Seven and Coskun (2016) found mixed explanatory findings suggesting that although financial development promoted economic growth, this did not necessarily benefit those on low-incomes in emerging countries. For the finance–poverty link, they found that neither banks nor stock markets play a significant role in poverty reduction. They used a dynamic panel data methods with an updated dataset for the period 1987–2011 to assess the finance–inequality–poverty nexus by taking the separate and simultaneous impacts of banks and stock markets into account.

With the understanding of the foregoing, Kenya through Vision 2030 identified among others, the deepening of capital markets and establishment of an international financial centre for financial services as flagship projects to help achieve the growth targets (GOK, 2007).The Vision 2030 for financial sectors envisages a vibrant and globally competitive financial sector driving high levels of savings and financing Kenya's investment needs. One of the specific goals have been to increase bank deposits from 44% to 80% of GDP and decrease the share of population without access to finance from 85% to below 70%. Supportive regulatory and legal frameworks have been established. For example in 2009, the Central Bank of Kenya (CBK) commenced measures to open up banking channels to non-bank agents. An amendment to the Banking Act (passed as part of the Finance Act, 2009) allowed banks to start using agents to deliver financial services. Using small shops, petrol stations, pharmacies and other retail outlets as agents have had a dramatic impact on improving access to financial services, especially in rural areas. This has been made possible by the fastest rates of mobile adoption. The March 2009 Fin Access study showed that 47.5% of the adult population in Kenya had their own phones making access to finance 78.4%.

Financial Sector Deepening reports of 2006 and 2009 indicated that Kenya had made impressive strides over the years in regard to financial inclusion. The survey content that, while formal inclusion had yet to match levels in Southern Africa, the proportion of

the population which was completely excluded at the time was lower in Kenya than any other African country except for South Africa. Drivers of financial inclusion in Kenya, most notably M-PESA and Equity bank, centred on supportive regulation, innovative business models and technological advances. KNBS (2014 & 2011) provides a trend of a growing financial services industry. In 2009 there was a growth of 4.6%, 8.8% in 2010, 7.8% in 2011, 6.5% in 2012 and lastly 7.2% in 2013.

The general consensus among many scholars is that countries need to implement appropriate macroeconomic policy measures to promote competition in the financial sector, and establish a transparent institutional and legal framework for the financial sector (Arshad et al., 2005; Mackinnon, 1993, Shaw 1993; Levine, 2001; Montiel, 2003). On the other hand, Benya (2010) attributes financial development to trade openness, financial openness and economic growth. While many other scholars point to institutional quality as the singular determinants of financial development (Aoki, 2001; Svensson, 1998; Wood, 1999; Fry, 1997; Sangin & Nazar, 2010; Kamau, 2009).Political institutions, legal institutions, accounting practices, governance, management efficiency, corporate governance and methods and quality of prudential supervision are taken as important aspects of institutional quality.

Overall, from the foregoing discussion, many studies point to a link between financial development and output growth. This is seen to be achieved through performance of critical functions to enhance the efficiency of intermediation by reducing information, transaction and monitoring costs. Cognizant of the role played by financial development in spurring growth in Kenya coupled with supporting literature on the finance-economic growth nexus, it is imperative to establish the factors that could explain the differences in the level of financial development across countries. The possible determinants of financial development have ranged from legal systems and institutions (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 1997, 1998; Beck & Levine, 2003), financial and trade openness (Chinn & Ito, 2005; Huang & Temple, 2005) to economic growth (Benya, 2010). Despite the number of possible factors that have been presented as a cause of

financial development, varying determinants have been seen to influence financial development in different countries.

1.1.1 Financial Development

Financial development is the progress in financial sector in terms of depth, efficiency, accessibility and stability (World Bank, 2012). Financial sector development thus occurs when financial instruments, markets, and intermediaries ease the effects of information, enforcement, and transactions costs and therefore do a correspondingly better job at providing the key functions of the financial sector in the economy. Roubini and Bilodeau (2008) define financial developments as enabling infrastructure (factors, policies, and institutions) that lead to effective financial intermediation and markets, and deep and broad access to capital and financial services. This constitutes institutional and business environments, financial intermediaries and markets that provide basic support for a financial system.On the other hand, financial sector refers to the set of institutions, instruments, and markets for financial products. This also includes the legal and regulatory framework that permit transactions to be made through the extension of credit. Efficient risk diversification, capital allocation, sound financial intermediation process and a availability of and access to capital are a hallmark of a working financial sector. World Economic Forum (2012)presents measures of financial development across the seven pillars of the Index: 1) Institutional environment encompasses financial sector liberalization, corporate governance, legal and   regulatory issues, and contract enforcement; 2) Business environment considers human capital, taxes,   infrastructure, and costs of doing business 3) Financial stability captures the risk of currency crises, systemic banking crises, and sovereign debt crises 4)   Banking financial services measures size,   efficiency, and financial information disclosure 5) Non-banking financial services includes Initial Public Offerings (IPO) and Mergers &Acquisitions (M&A) activity, insurance, and securitization 6) Financial market encompasses foreign exchange, derivatives markets, equity and bond market development and 7) Financial access evaluates commercial and retail access.

The relationship between economic growth and developments in the financial sector has been one of the most discussed areas in financial economics for a long time (Chakraborty, 2008). The direction of causality, and the link has been a debatable issue.Patrick (1966) postulates a dual causal (a bi-directional) relationship between finance and growth. According to him the two can granger cause each other. Many other scholars like Levine, Loayza and Beck, (2000); Levine, (2003); Rajan and Zingales (2003) observed a uni-direction relationship from finance to growth.Schumpeter (1912) analysis of the importance of technological innovation in the long-run with economic growth, stressed the critical role that the banking system would play in facilitating investment in innovation and productive investment by the entrepreneur. Robinson (1952) differed by maintaining that it was economic growth that could create the demand for various types of financial services to which the financial system responded.

Herger, Hodler and Lobsinger (2008) established a profound impact of economic globalisation on financial development through arising group of closely intertwined international markets on which banks, corporations, or government agencies traded an increasing amount of assets such as bonds, shares, or currencies. The shrinking transaction cost of accessing external funds facilitated investment and market entry, stimulating competitive pressures to innovate, mobilise savings to accumulate capital, and eventually inducing further economic growth (Levine, 1997 & 2005).

In conclusion, the empirical literature shows that the development of financial market is relevant (Hermes & Lensink, 2003; Alfaro et al., 2004; Azman-Saini et al., 2010). Ben, Cherif and Kandil (2014) averred that developed and well-regulated financial markets were usually seen as a precondition for an efficient allocation of resources and could foster long term economic growth. King and Levine, (1993) agreed that on average, countries with better financial systems had experienced faster growth than those with less developed systems. According to Levine and Zervos (1998), developments in the bank and stock market were usually good predictors for subsequent output growth. Rajan and Zingales (1998) also pointed out that industrial sectors that were exposed to external finance expanded faster in countries with more favourable financial markets.

Beck and Levine (2002) affirmed that the result holds independently of the nature of the financial system, whether it is dominated by banks or stock market based.

1.1.2 Overview of the Kenyan Financial System

Kenya's reliance on the financial sector to spur economic growth has seen her deepen capital markets and is working towards the development of an international financial centre (GOK, 2007). Central bank of Kenya (2015) showed that payment systems in Kenya had grown rapidly largely supported by faster growth in internet and mobile phones, e-commerce, technological developments and Near Field Communication (NFC). These are being supported by financial reforms that include improved oversight and regulatory regimes for the national payment system, enhanced efficiency and stability of payment systems and service providers, innovative technology-enabled business products, broadening of the range of payment instruments, improved cost efficiency, enhanced interoperability and resilience of banking, payment and securities infrastructures.

Kenya's financial sector has grown significantly in size and complexity as it continues to support the overall economy (Central bank of Kenya, 2015). The sector comprises of the banking, capital markets, insurance, pensions, and savings credit cooperatives. Other players include microfinance institutions, money remittances companies, foreign exchange bureaus and development finance institutions. There are also safety nets and resolution institutions such as the Kenya Deposits Insurance Corporation for commercial and microfinance banks; Investor Compensation Fund for Capital Markets subsector; and the Insurance Policyholders' Compensation Fund for the insurance subsector. These are supported by Credit Information Sharing (CIS) platforms through the Credit Reference Bureau and a vibrant Financial Markets Infrastructure (FMI) system comprising of trading, payments and settlements, and custodial services platforms. As a proportion of nominal GDP, the financial sector's total assets excluding capital markets accounted for 83.27 per cent in 2015 while equities' market capitalization was 32.93 per

cent. The sector's share of GDP, however declined compared to 2014, with the largest fall coming from banking industry (Table 1.1).

Table 1.1: Share of the Financial Sector to GDP

Industry	2013		2014		2015	
Indicator	Kshs M	% of GDP	Kshs M	% of GDP	Kshs M	% of GDP
Normal GDP	4,745,439	-	5, 3398,020	-	6,224,309	-
Banking Net Assets	2,730,394	56.97	3,199,396	59.27	3,492,643	56.11
Microfinance Net Assets	41,400	0.87	56,900	1.05	69,465	1.12
Insurance Assets	366,252	7.72	426,310	7.90	478,752	7.69
Pension Industry Assets	696,680	14.68	788,150	14.60	814,100	13.08
Sacco industry Assets	257,368	5.42	301,537	5.59	328,244	5.27
Total Assets	4,065,094	85.66	4,772, 293	88.41	5,183,204	83.27
Equity market Cap.	1,920,718	40.48	2,300,054	42.61	2,049,539	32.93

Source: Financial Sector Stability Report, 2016

From the Table 1.1 banking net assets accounted for more than 50% (Ksh. 3.5 trillion) of the sector's contribution to GDP in the three years, making it a single major contributor. Consequently, banking industry is considered a key player in the Kenya's financial sector. Financial Stability Report (2015) indicated that in 2015, Kenya's banking system comprised of the Central Bank of Kenya as the regulator, 42 commercial banks, 1-mortgage finance company, 8 representative offices of foreign banks, 12 microfinance banks, 3 Credit Reference Bureaus (CRBs), 14 money remittance companies and 80 foreign exchange bureaus. In 2015, a total of 13 commercial banks were foreign owned and accounted for 30.9 per cent of the sector's assets as compared to 31 per cent in December 2014. The decrease was attributable to increased market share by local private

banks from 64 per cent in 2014 to 64.6% in 2015.The Kenya's banking subsector compares favourably with other regions as shown in Table 1.2.

Table 1.2: Kenya's Financial System in Comparison to other Financial Systems

	Private credit/GDP*(%)	Deposits/GDP*(%)	Bank Concentration
Kenya	21.7	30.9	45
Uganda	13.9	26.1	81
South Africa	162.4	63.3	78.9
Malaysia	96.4	109.4	48.5
Germany	102.2	103.6	74.4

Source: World Bank (2009)

Historically, development of the banking industry in Kenya started before the formation of the East African currency board in 1919 (CBK, 2011). The first foreign bank to conduct business in Kenya was the National bank of India, which in 1896 opened its first branch at the coastal town of Mombasa. The Standard Bank of South Africa followed in 1910, and the National bank of South Africa in 1916. The latter two banks merged in 1926 with the Colonial Bank and the Anglo-Egyptian Bank to form the Barclays bank D.C.O (Dominion, Colonial & Overseas). Majority of banks entered the Kenyan market in 1950s mainly from India and South Africa. Such banks included Bank of Baroda in 1953, Habib Bank in 1956 and Ottoman Bank in 1958. Commercial bank of Africa came in shortly after 1962 when its parent bank was constituted in Tanzania. By 1963, Kenya's banking system consisted of 10 banks that were mainly foreign owned. In 1968 soon after the attainment of Kenya's political independence in 1963, two locally owned banks were established namely the Co-operative bank of Kenya and the National bank of Kenya. The financial reforms of 1988 necessitated the establishment of many banks in particular twenty (24) banks licensed commercial banks was 24 opened doors to Kenyan public; fifteen (15) foreign owned, three (3) state banks and six (6) locally owned private banks. This number has increased to forty four (44) by December 2016 (CBK, 2011).

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Non-Bank financial institutions and the capital markets provide various financial instruments for debt and equity financing. According to CMA (2010) the Nairobi Securities Exchange (NSE) in Kenya which was established in 1954 is small and somewhat speculative. The Exchange is sub-Saharan Africa's fifty-largest bourse. Market Concentration of the 5 largest exchanges in Africa is 95%. Data indicates that the Nairobi Stock Exchange, as at December 2009, was ranked 5th in Africa in terms of market capitalization behind South Africa, Egypt, Nigeria and Morocco. The financial market in Kenya performs two significant functions. Firstly, it allocates money capital through identifying those with surplus funds, attracting the funds into a pool and then distributing them to those who need to spend more than what they have. Secondly, they perform the function of distribution of the economic risk through the creation and distribution of securities. The Kenya financial market is classified into the following: 1) The Capital Market. This is the market for long-term funds (shares and loans). 2) The Money market. This is the market for short term funds (treasury bills, commercial paper, and certificates of deposit). The financial market, which makes up the financial system in Kenya, is comprised of the following players: 1) Banks and non-bank financial institutions. These are licensed under the Banking act. 2) Insurance companies which are licensed under the Insurance Company's Act. 3) Building societies are registered under the Building Societies Act. 3) Cooperative societies registered under the Cooperative Societies Act. 4) Hire purchase companies registered under the Hire Purchase Act. 5) Post office savings bank registered under the post office savings act. 6) Agricultural finance co-operations registered under the Agricultural Credit Act. 7) Micro finance which are registered under Micro Finance Act.

The regulatory environment has been strengthened with five key agencies and regimes for prudential regulations. Central Bank of Kenya (CBK) is a regulator for banks and payment settlements, Insurance Regulatory Authority (IRA) for insurance, Capital Market Authority (CMA) for capital markets, Retirement Benefits Authority (RBA) for pensions and SACCO Society Regulatory Authority (SASRA) has been mandated to

supervise and license SACCOs. The structure of the financial sector regulatory framework is presented in appendix 4.

1.2 Statement of the problem

The empirical literature links finance to output growth (Hermes &Lensink, 2003; Alfaro et al., 2004; Azman-Saini et al., 2010). Ben et al. (2014) averred that developed and well-regulated financial markets were usually seen as a precondition for an efficient allocation of resources and could foster long term economic growth. King and Levine (1993) concurred by pointing out that on average, countries with better financial systems had experienced faster growth than those with less developed systems. According to Levine and Zervos (1998), developments in the bank and stock market were usually good predictors for subsequent output growth. Rajan and Zingales (1998) reinforced the argument by asserting that industrial sectors that were exposed to external finance expanded faster in countries with more favourable financial markets. Beck and Levine, (2002) affirmed that the finance-growth link holds independently of the nature of the financial system, whether it is dominated by banks or stock market based.

Central bank of Kenya (2015) presented an increasingly pivotal role that Kenya's financial sector plays in facilitating economic expansion domestically and in the East African region. The sector, has however weathered shocks that have in the process made it stronger through key reforms implemented on three pillars: transparency, enhanced governance and re-engineering the business models. There have been downside risks to Kenya's macro-financial conditions. Domestically, the banking subsector has faced liquidity risks coupled with skewed distribution and corporate governance issues that resulted in two banks being placed under receivership in 2015 and a third bank in the first half of 2016 while another underwent liquidation in 2015. The two banks were not systemic, hence limited spillovers to the rest of the industry but the contagion effect in terms of waning confidence in banks was felt. The subsector also recorded increased credit risks, with Non-Performing Loans (NPLs) rising faster than historical trends and credit to private sector slowing down to about 14 per cent of GDP.

In Kenya Ngugi *et al.* (2008) study on financial deepening contribution, capital market and economic growth in Kenya shed light on the financial sector crucial role in economic development. The depth of the financial sector was generally found to promote economic growth. It was observed that well-functioning capital markets increases economic efficiency, investment and growth. Kenya's capital market was described as narrow and shallow. Kamau (2009) study averred that operational modalities increase efficiency.

Studies of the relationship between determinants of financial development revealed mixed results or provide little evidence on developing countries (Kose et al., 2009; Obstfeld, 2009; Quinn & Toyoda, 2008; Quinn, Schindler, & Toyoda, 2011). Differences in the type of factors, the sample period, country coverage, and the choice of empirical methodology have been cited as the main reasons for the diverse findings in the literature. Thus despite the number of possible variables that have been presented as a cause of financial development, there is no particular variable that has been found to primarily explain the difference in the level of financial development across countries. This study fills the gap by investigating factors that influence financial development in Kenya.

1.3 Study objectives

1.3.1 General Objective

To establish the determinants of financial development in Kenya

1.3.2 Specific objectives

1. To determine the effect of institutional quality on financial development in Kenya.
2. To examine the effect of trade openness on financial development in Kenya
3. To establish the effect of income levels on financial development in Kenya
4. To examine the effect economic growth on financial development in Kenya

5. To investigate the moderating effect of government economic policies on the determinants of financial development

1.4 Research hypotheses

1. H$_{01}$: Institutional quality does not significantly influence financial development in Kenya.

2. H$_{02}$: Trade openness does not significantly influence financial development in Kenya.

3. H$_{03}$: Income levels does not significantly influence financial development in Kenya.

4. H$_{04}$: Economic growth does not significantly influence financial development in Kenya.

5. H$_{05}$: There is no moderating effect of government economic policies on the determinants of financial development in Kenya.

1.5 Significance of the Study

The study made immense contribution to the existing knowledge in the area of finance in Kenya, by broadening the available knowledge. The study could benefit various stakeholders such as academicians, regulators, Government of Kenya and commercial banks

1.5.1 Academia

The academia will benefit a lot from the study findings as it will add knowledge to the existing literature. The industry plays a very significant role in the financial intermediation in the economy and soundness, efficiency and stability of the industry is a major concern to both the academia and the government. The researchers, students and academicians would use this study as a basis for discussions on implementation of such

regulations in the commercial banking industry and performance. The study would be a source of reference material for future researchers on other related topics.

1.5.2 Investors

The foreign investors and international agencies will gain an understanding of the stability, efficiency, soundness and players in the financial market. This shall help in development of an international financial centre as envisaged. Generally, this study is important at this level of economic development when efforts are being made to reposition the financial system to enable it play key roles in economic development of Kenya as envisioned in the vision 2030.

1.5.3 Regulators

The financial regulators in the country such as the CMA, IRA, CBK and SASSRA can use these study findings to understand the impact of various policy measures to the financial sector. The study would provide insights on the possible approaches that can enhance the sector's growth, performance and monitoring, and hence guide in regulation and policy formulation. This would therefore help policy makers of the financial sector with the development and review of existing policies to achieve synergy in line with the existing circumstances.

1.6 Scope of the study

The study concentrated on the determinants of financial development of financial institutions in Kenya. The choice of the financial institutions regulated by CMA, IRA, CBK and SASSRA was informed by availability of information and their significant contribution to the gross domestic product (GDP) and to the achievement of Kenya Vision 2030. The study was limited to institution quality, financial openness, economic growth and trade openness and their effects on financial development of 236financial institutions in Kenya from 2010 to 2015. The period of study was recent enough to ensure data was readily available and reliable for the study. However, stratified sampling

was undertaken to ensure financial institutions in different sectors were given a fair representation. Geographically all financial institutions targeted have their headquarters in Nairobi.

1.7 Limitation of the study

The scope was limited because of the economic and logistical resources constraints. To overcome this limitation data was taken within the seven years as a representative for the period. Also bureaucracy in the financial sector would have led to the response being subjective. However, limitations were overcome by establishing reliable contacts and using introductory letter giving confidence to the respondents. In the letter respondents were also given an option to remain anonymous.

It was expected that difficulties would have been faced in securing appointments from busy respondents. This was premised on the notion that respondents would have had other engagements to divide their attention. To overcome this problem, the researcher consistently made repeated visits until eventually gaining a breakthrough in collecting the required data. Lastly, the strict confidentiality requirement for private firms was expected to make respondents either un-willing or shy to provide some information. To address this limitation, the permission was sought and obtained from the board of directors of the respective firms.

Another constraints which were encountered in this study were restrains and confidentiality from the respondents to the questionnaire as most financial institutions consider some information as confidential and hence were not willing to share. To overcome these limitations, the study used a letter of introduction from the university to assure the respondents that the information provided was used for academic purpose and thereby to be treat with confidentiality.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents discussion of all the theories related to finance-growth nexus and determinants of financial development. Both theoretical literatures and empirical studies advanced by renowned scholars are discussed. The theory of financial intermediation is the first one as it provides justification for the existence of financial institutions. Secondly, theories of financial regulations and institutional theory, premised on the fact that financial sector uses other people's finance to do business, therefore they are required to be accountable by complying with imposed regulations and systems of processes. Third, the theory of innovation is worth mentioning given that financial intermediaries finance activities that give rise to new products. Fourth, demand-following and supply-leading hypothesis firms the relationship between finance-growth nexus as it provides directional relationship of finance and economic growth. Lastly the chapter delves into the empirical studies done by various scholars.

2.2 Theoretical Literature

There are several theories advanced by different scholars to explain the determinants of financial development in Kenya. This study was guided by six major theories discussed below.This theories confirm: 1) the relationship between financial development and growth economic growth and 2) the determinants of financial development.

2.2.1 Theory of Financial Intermediation

The Financial intermediary's theory is built on the economics of imperfect information that began to emerge during the 1970s with the seminal contributions of Akerlof (1970), Spence (1973) and Rothschild and Stiglitz (1976). Financial intermediaries exist because they can reduce information and transaction costs that arise from an information

asymmetry between borrowers and lenders. Financial intermediaries thus assist the efficient functioning of markets and consequently affecting macroeconomic environment. There exist two strands in the literature, which formally explain the existence of financial intermediaries. The first strand emphasizes financial intermediaries' provision of liquidity. The second strand focuses on financial intermediaries' ability to transform the risk characteristics of assets. In both cases, financial intermediation can reduce the cost of channeling funds between borrowers and lenders, leading to a more efficient allocation of resources.

Financial intermediation exists to solve informational asymmetry and the agency issues (Gurley & Shaw, 1960). Financial intermediaries perform such functions by reducing costs of transaction and providing information in useful time. Without financial intermediaries, the informational asymmetry would generate imperfections of the market, which would present a deviation from the otherwise expected perfect markets as propagated by Arrow and Debreu (1954). Imperfections generated by informational asymmetry lead to the emergence of some specific forms of transaction costs. The financial intermediaries emerged exactly to eliminate, at least partially, these costs.

Financial markets, such as bond and stock markets are crucial in promoting economic efficiency by channelling funds from people who do not have a productive use for them to those who do (Mishkin & Eakins, 2012). A well-functioning financial market is a key factor in producing high economic growth. Activities in financial markets have direct effect on personal wealth, the behaviour of businesses and consumer, and the cyclical performance of the economy. Financial system affect long-run growth by enabling small savers to pool funds, allocate pooled funds to investment of the highest return use and in doing so partially overcome problems of adverse selection in credit markets. The financial intermediaries perform this important task through risk management, reducing informational asymmetries and transaction costs. Economies of scale and scope as well as the delegation of the screening and monitoring function especially apply to dealing with risk itself, rather than only with information. The above theory instigated the

general objective of the study on the effects of economic growth and income levels on financial development in Kenya.

2.2.2 Theories of Financial Regulation

Peltzman (1989) gave an account of what has come to be called the economic theory of regulation which began with an article by Stigler (1971). The most important element of this theory is its integration of the analysis of political behavior with the larger body of economic analysis. Politicians, like the rest of the people, are presumed to be self-interested maximizers. This means that interest groups can influence the outcome of the regulatory process by providing financial or other support to politicians or regulators. Simultaneously with Stigler (1971), Posner (1971) provided an important critique, and several years later he gave the theory its grandiose name.

These theories come in two strands. The first one is about Public interest theory which lies with Pigouvian welfare economics. Public interest approach is a conventional view of regulation rooted on welfare economics of Pigou's (1932). He argued that the state is an omnipotent, yet benevolent, maximizer of social welfare that could efficiently correct market failures (Pigou, 1932). Arthur Cecil Pigou who held that regulation is supplied in response to the demand of the public for the correction of inefficient or inequitable market practices. Regulation is assumed to benefit the whole society rather than particular vested interests or private interests of the investors. However, Bentley (1870–1957) in his pioneer work contrarily argued that groups capture control of regulatory agencies to advance their interests. This was supported by Hantke-Domas (2003) dismissal of public interest idea as a fiction that represented only the interests of group.

Samuelson (1947) addressed the deficiencies and unfitted market by paying attention on the interest of consumers' regulations in response to demand of relief from inequitable and inefficient market. The gist of the matter was Public interest approach embraces public good from which group or some citizen benefit. Under public interest approach bank regulation exist for exclusive benefit of depositors and investors. Public interest

theory is usually contrasted with public choice theory that is more cynical about government behavior and motives and sees regulation as being socially inefficient.

In addition, Stigler (1972) pointed out that regulation can be misused by the existing firms to protect themselves from entry by competitors. The thrust of criticism of this theory is premised on the belief that the public demands a better allocative efficiency. The critics believe that the theory has no verifiable predictions or outcomes; thus it is not seen as a valid theory. Criticism does not mean that Public interest theory should be abandoned because it does not explain well the bank regulation. Pigou's, (1938) classic treatment of regulation argument holds that where market is imperfect, Adam Smith invisible hand cannot not work. In addition, he further affirmed that monopoly power, externalities, and informational asymmetries create a constructive role for finance and growth, and the strong helping hand of government help offset market failures and thus enhance social welfare.

The growth of regulation in 1930's was simply a functional response to the changing public needs and interests of an evolving industrial society. Despite its appeal, the public interest theory has been theoretically and practically been discredited for its inability to take into account competing conceptions of the public good, its ascription of heroic and unrealistic attributes to regulators, its underestimation of the power of organized interests, and its failure to explain why regulation often fails to deliver public interest outcomes (Baldwin & Cave, 1999). The public interest theory of regulation also holds that firms require regulations in order to guarantee the choice theory of regulation, which rests on the premise that all individuals, including public servants, are driven by self-interest (Hantke-Domas, 2003).

The second strand was the Self Interest theory of regulation. Mitigating the criticism of Public interest theory of regulation, ideologies evolved focusing on pursuit of private interest. The main thrust of Self Interest theory of regulation was proposed by Stigler (1971) and Peltzman (1989). The regulations were formulated as result of demand from different interest groups for government intervention. There is no divergence between

politician and optimal policies (as interest to group demands) and their implementation. Agency problem arise between politician and regulators because regulators are intrusively unobservable (Spiller, 1990). The Self Interest theory of regulation (theory of regulatory) capture provides much more accurate predictions about recent regulatory experience. It contends that regulatory developments are driven not by the pursuit of public interest but rather by private interests that lobby for special privileges or regulatory rents (Williams, 2004). This interest group theory of regulation, however, owes more to the work of Mancur Olson than it does to the interest group pluralism of Truman (1951) and Dahl (1961). In the Logic of Collective Action Olson (1965) posited that since group interests are collective goods, only small, privileged groups, or those groups with access to selective incentives, could overcome collective action problems in realizing group goals. Olson predicted the masses of consumers, taxpayers, the poor, and the unemployed would remain latent, while privileged groups such as industry cartels, professional associations, and unions, would organize to further their interests.

Olson's insight stimulated members of the Chicago School, beginning with Stigler, to explain how regulations is acquired by the industry and is designed and operated primarily for its benefit (Stigler, 1971). Stigler asserted that there is a market for regulation, just as there is for other goods and services. In Stigler's model, government regulators are suppliers of regulatory services (exchanging regulatory rents for various forms of political income or personal gain), while the regulated industry is the primary source of demand (Williams, 2004). The assumption that market behavior is normally motivated by fairly narrow considerations of self—interest is plausible because most market that the interests promoted by regulatory agencies, are frequently influence on the regulatory process of interest groups. The above theory instigated the general objective of the study on the effects of firm-specific institutional quality on financial development in Kenya.

2.2.3 Demand-Following Hypotheses and Supply-Following Hypotheses

Patrick (1966) in his seminar paper postulates a dual causal (a bi-directional) relationship between financial sector development and economic growth. The two can granger cause each other. He named the two relationships demand-following and supply-leading hypotheses respectively.However, the demand-following posits a causal relationship from economic growth to financial growth providing the strong evidence needed. When the economy grows, increased demand for financial services induces growth in the financial sector. The demand-following hypothesis posits that financial markets develop and progress following the increased demand for their services from the growing real economy. Financial markets development is seen as a passive response to a growing economy. As the real sector expand and grows, the growing economy will generate increased new demands for financial services which in turn will exert and intensify pressures to establish larger and more sophisticated financial institutions to satisfy the new demand for the services making financial deepening a merely an outcome of growth in the real sector of the economy.

On the other hand, supply following hypotheses posit that the effect runs from financial development to economic growth. The financial sector can stimulate economic growth through three channels. Firstly it increases marginal productivity of capital of collecting information to evaluate alternative projects and risk sharing. Secondly, it raises proportion of savings channeled to investments by means of financial development and this increases efficiency of financial intermediation. Lastly, it increases the private saving rate.

Demand-following and supply-leading hypothesis firms the relationship between finance-growth nexus as it provides directional relationship of finance and economic growth. The above theory instigated the general objective of the study on the effects of economic growth on financial development in Kenya.

2.2.4 McKinnon Shaw hypothesis

More scholars posited a finance-growth nexus. Scholars like McKinnon (1973) and Shaw (1973) made important contributions that cannot be wished away which are referred to as the "McKinnon Shaw" hypothesis. The hypothesis received considerable attention as a leading theoretical presentation on positive effect of financial development on growth. According to this hypothesis, increased savings rate and thus the investment rate would raise size of savings and efficiency of investment leading to higher economic growth. In other words, a low or negative real interest rate discourages savings and reduces the availability of loanable funds for investment thereby lowering the rate of economic growth. The other essential tenet of this hypothesis is that any government restrictions on the banking system would impede the process of banking development and consequently, reduce economic growth. This implies that a more liberalized financial system induces an increase in savings and investment and thus, promotes economic growth. The above theory instigated the general objective of the study on the effects of economic growth on financial development in Kenya.

2.2.5 Theory of innovation

Schumpeter (1912) posits that innovations are induced by a search for temporary monopoly profits. An important aspect of Schumpeter's ideas, though, is that innovation can be seen as "creative destruction" waves that restructure the whole market in favor of those who grasp discontinuities faster. He argues that the role played by financial intermediaries in mobilizing funds, evaluation and selecting projects, managing risks, monitoring entrepreneurs and facilitating transactions should be seen as the critical elements in fostering technological innovations and economic growth. Through his idea financial institutions are important because they evaluate and finance entrepreneurs in their initiation of innovative activity and the bringing of new products to market. Thus there is a nexus of finance and innovation which is central to the process of economic growth.

This theory advances the endogenous determination of productivity growth, which is taken to be the result of rational investment decisions.

Productivity growth is thus influenced by standard consideration of costs and benefits. It follows that financial systems influence decisions to invest in productivity enhancing activities through two mechanisms through evaluation of prospective entrepreneurs and financing of the most promising ones. Financial institutions can provide these research, evaluative, and monitoring services more effectively and less expensively as opposed to individual investors. They can also better mobilize and provide appropriate financing to entrepreneurs than individuals. Overall, the evaluation and sorting of entrepreneurs lowers the cost of investing in productivity enhancement and stimulates economic growth. Financial sector distortions can therefore reduce the rate of economic growth. The above theory instigated the general objective of the study on the effects of institutional quality on financial development in Kenya. The financial sector roles are presented in appendix 5.

2.2.6 Institutionalization Theory

Institutional theory attends to the deeper and more resilient aspects of social structure. It considers the processes by which structures, including schemas; rules, norms, and routines, become established as authoritative guidelines for social behavior. This theory is built on the concept of legitimacy rather than efficiency or effectiveness as the primary organizational goal (McAdam & Scott, 2004). The environment is conceptualized as the organizational field, represented by institutions that may include regulatory structures, governmental agencies, courts, professionals, professional norms, interest groups, public opinion, laws, rules, and social values. Institutional theory assumes that an organization conforms to its environment.

It delves into how these elements are created, diffused, adopted, and adapted over space and time; and how they fall into decline and disuse. It considers the processes by which structures, including schemes, rules, norms, and routines, become established as

authoritative guidelines for social behavior (Scott, 2004). Different components of institutional theory explain how these elements are created, diffused, adopted, and adapted over space and time; and how they fall into decline and disuse.

The basic concepts and premises of the institutional theory approach provides useful guidelines for analyzing organization-environment relationships with an emphasis on the social rules, expectations, norms, and values as the sources of pressure on organizations. This theory is relevant to the study as it explains how institutional environment; that is the desire to explore organization cultures defines the management practices of an organization and how such practices affect financial development. The above theory instigated the general objective of the study on the effects of institutional quality on financial development in Kenya.

2.3 Conceptual Framework

Conceptual framework is a detailed description of the phenomenon under study accompanied by a graphical or visual depiction of the major variables of the study (Mugenda, 2008). The conceptual framework in figure 2.1 shows the relationship between the dependent and independent variables. The dependent variable in this study is financial development, which is represented by the liquidity liability, private credit, net interest margin and commercial bank-central bank which are proxy indicators of financial development. The independent variables are trade openness, institutional quality, income levels in terms of GDP per capita and economic growth in terms of GDP rate. The moderating variable in this study is the government policies. The conceptual framework was developed from the review of literature discussed above and assumes a linear relationship between the variables. Using Khalfaoui (2015) study, institutional variable is proxied by non-performing loan indicator, management efficiency and financial structure. Trade openness is operationalised by taking the value of exports and imports as a percentage of the real GDP. The sum of gross stocks of foreign assets and liabilities will be expressed as a share of GDP (Kose et al. 2009).The moderating

variable is the government policies on economic stability as measured by the levels of inflation and government debt.

In addition, non-performing loans to total gross loans (%) is measured by the value of non-performing loans divided by the total value of the loan portfolio (including nonperforming loans before the deduction of specific loan-loss provisions). Financial structure of banks is the Equity to total assets ratio. Equity is the capital and reserves which include funds contributed by owners, retained earnings, general and special reserves, provisions, and valuation adjustments. Total assets include all non-financial and financial assets.

The dependent variables are Institutional-specific variables which captures the extent of bank-based intermediation. Net Interest Margin (*NIM*) equals the difference between bank interest income and interest expenses. It is an efficiency measures for the banking sector. A lower value of overhead costs and net interest margin is frequently interpreted as indicating greater competition and efficiency. The Liquid Liabilities (*LLY*), is one of the major indicators used to measure the size, relative to the economy, of financial intermediaries, including three types of financial institutions: the central bank, deposit money banks and other financial institutions. It is calculated as the liquid liabilities of banks and non-bank financial intermediaries (currency plus demand and interest-bearing liabilities) over GDP.

The Private Credit (*PRIVCRED*), is defined as the credit issued to the private sector by banks and other financial intermediaries divided by GDP, excluding credit issued to government, government agencies and public enterprises, as well as the credit issued by the monetary authority and development banks. It measures general financial intermediary activities provided to the private sector. This domestic credit to GDP ratio serves as a proxy for financial depth. The size of the banking sector is described by assets held by deposit money banks (ASSETS) and liquid liabilities (LIQUID), both expressed as a percentage of GDP. The Commercial-Central Bank (*COM-CENBAN*), is the ratio of commercial bank assets to the sum of commercial bank and central bank

assets. It reflects the advantage of financial intermediaries in channeling savings to investment, monitoring firms, influencing corporate governance and undertaking risk management relative to the central bank.

The moderating effect is proxied by inflation and government debt. Inflation is measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. Government debt is the total value of the country's indebtness both domestic and external partners. This is represented as a percentage of real GDP.

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┌─────────────────────────────┐
│   Firm-specific Institutional│
│           Quality            │
│                              │
│  • Financial structure       │
│  • Management efficiency     │
│  • Credit risk management    │
└─────────────────────────────┘

┌─────────────────────────────┐
│      Financial openness      │
│                              │
│  • Foreign liability and     │
│    Foreign assets ( as a %   │
│    of GDP)                   │
└─────────────────────────────┘

┌─────────────────────────────┐
│       Economic growth        │
│                              │
│      • GDP growth rate       │
└─────────────────────────────┘

┌─────────────────────────────┐
│        Trade openness        │
│                              │
│  • Export plus import( as a  │
│    % of GDP)                 │
└─────────────────────────────┘
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Firm-specific Institutional Quality

- Financial structure
- Management efficiency
- Credit risk management

Financial openness

- Foreign liability and Foreign assets (as a % of GDP)

Economic growth

- GDP growth rate

Trade openness

- Export plus import(as a % of GDP)

Financial development

- Private credit (PRIVO)
- Net Interest margin (NIM)
- Liquidity Liability (LLY)
- Commercial bank-central bank (CCB)

Dependent Variables

Government policies

- Inflation rate
- Government debt (as a % of GDP)

Independent Variables   **Moderating Variables**

Figure 2.1: Conceptual Framework.

2.4 Empirical Literature Review

There have been varied discussions on the measures of financial development and the determinants of financial development. Presented here below are empirical review of independent and dependent variables.

2.4.1 Institutional Quality

Studies by Aoki (2001), Hartwell (2013) and Sachs (2003) provided support for institutions significant impact on financial development and economic growth. Svensson (1998) particularly focused on political institutional, specifically property rights and their effects on economic evolution and concluded that they had negative effects on investment. Durham (2002) and Claessens et al. (2003) averred that the existence of property rights enhanced asset allocation in the financial industry. Andrianaivo et al. (2009) examined the African financial market by analysing the extent to which one of the property rights criteria (creditor collateral) influences the improvement in financial industry and found it in affirmative. Chinn et al. (2006) indicated that overall institutional quality guided and maintained effective progress in financial industry more than a particular financial institution such as accounting procedures. Several studies observed the negative effects of institutional volatility on the financial market, although quantifying institutions (Voigt, 2013). However, these studies on institutional volatility had been concerned with policy instability's negative influences on financial industry.

Wood (1999) and World Bank (2001) legal institutional studies emphasized that, in the absence of robust legal system with explicit and precise property rights that ensure contracts implementation, loans uptake suffered. Creditors were only motivated with the existence of high degree of legal shields. Levine (2002) concluded that legal and accounting reforms that strengthened creditor rights, contract enforcement, and accounting practices boosted financial development and accelerated economic growth. La Porta et al. (1997, 1999) and Levine (1998) linked the weak protection of shareholders property rights with defective and unreliable stock market. Claessens et al. (2002) discussed the fast development and stability of stock market in Common law countries where the shareholders rights were highly protected and secured. Chinn and Ito (2006) affirmed that financial sector freedom had a high positive effect on financial development especially when an economy maintained high level of legal institutional quality. More so financial sector freedom was considered a tool for enhancing the

market openness. Beck and Levine (2004) and Johnson et al. (2002) found out that high legal protection for investors and creditors as well as full elimination of ambiguity and deviousness of financial sector made the economic intermediaries' interest in an economy profound. Silva (2002) pointed out that the legal protection resulted in a reduction in market volatility as well as raised investors' trust and belief in the economy.

North (1991, 1992) and Tornell and Velasco (1992) found out that economic and political institutions strength are vital for countries' economic growth since they enhance the market operations as well as the investment rates. Burda and Wyplosz (2009) observed that the quality of institutions was considered a vital element in enhancing financial growth as it motivated investment rates. Therefore, robust institutional quality is essential for emerging markets as far as it acts as a driving element to raise financial development and eventually economic productivity. Knack and Keefer (1995) showed a strong influence of property rights on market stability and flow of capital by measuring the level of political stability. Cavallo and Cavallo (2010) argued that reducing autocratic decree in institutions relieved the shocking effect of financial crisis. Many studies in the literature showed that developing countries were always considered high volatile markets. Duncan (2013) argued that volatility could be due to support of monetary policies unsteadiness. Kaminsky et al. (2004) studied 104 emerging economies for the period between 1960 and 2003 and concluded that developing countries mostly had a high volatile market due to low institutional quality. Countries with low level of institutions quality could not manage economic disturbance (Rodrik, 1999). Johnson et al. (2000) pointed out that the explanation for the severe effects of the financial crisis in 1990 on developing countries with open markets was due to poor financial and political institutions' quality. Moreover, Abdessatar and Rachida (2013) examined the link between institutions' quality and market volatility measured by the Financial Stress Index in addition to the governance indicators established by Kaufmann et al. (2010) and found out that strong institutions in developing countries reduce financial market instability.

Hasan, Song and Watchel (2014) concluded that there existed a negative association between stock price synchronicity and property rights protection and rule of law. This serves as the most recent good attempt in addressing the quantitative aspects of institutional development. They developed an index for institutional development in China that composed of three pillars; property rights, quality of law enforcement and political pluralism. These theories argued that modifications in institutions have distinguished effects on economic growth, corporate earnings, investments, production and exchange. Heritage Foundation (2014) used the Economic Freedom Index as a proxy for institutional quality. The understanding was that the high degree of economic freedom can be used as an indicator to reflect a high institutional quality, and vice versa. The index assessment relied on government policies, the consistency in its rating system as well as declaring the index annually. Countries were ranked based on measure of the quality dimensions as indicated by Economic Freedom Index. The index was based on Rule of Law, Open Markets, Regulatory Efficiency and Government Constraints for each country per year. The variables obtained included the sub-elements of the four above mentioned pillars of Economic Freedom Index. These variables were as follows: property rights, freedom from corruption, fiscal freedom, government spending, business freedom, labor freedom, monetary freedom, trade freedom, investment freedom and financial freedom. Property rights assessed the ability of individuals to accumulate private property secured by clear laws that are fully enforced by the state. Freedom from corruption was based on quantitative data that assess the perception of corruption in the business environment, including levels of governmental, legal, judicial, and administrative.

Many scholars have linked legal systems and institutions to financial development. La Porta et al. (1997 & 1999) provided evidence that the legal origins of a country's commercial/company law were imperative to form its financial structure and corporate government institutions through its laws on creditor rights, shareholder rights and the country's bank and stock market development. Having creditor rights encouraged lending which on the other hand supported bank or market lending while strong

shareholder rights encouraged equity market development. They showed that legal environments determined the size and degree of a country's capital markets, as a reliable legal environment prevented entrepreneurs from expropriating prospective financiers. This resulted in financiers being willing to provide funds in exchange for securities, which in turn led to capital market expansion. The belief was that creditors and shareholders legal protection affected financial decisions, resulting in a strong link between law and stock market development. After examining empirical evidence presented on legal institutions and financial development, Beck and Levine (2003) concluded that the law and finance theory (i) historically determined differences in legal tradition influence national approaches to private property rights protection, the support of private contractual arrangements, and the enactment and enforcement of investor protection laws and (ii) these resultant legal institutions shape the willingness of savers to invest in firms, the effectiveness of corporate governance, and the degree of financial market development."

 Using an expanded set of legal indices, Pistor, Raiser and Gelfer (2000) provided evidence that legal institutions impacted external finance more strongly than laws on the books even when legal change ensured shareholder and creditors rights were improved. They found that the nonexistence of effective legal systems put an important constraint on financial market development.

Kamau (2009) study affirmed that foreign banks were more efficient than local banks. He attributed foreign banks concentration mainly on different operational modalities from the local, which affects the efficiency and profitability. Sangmi and Nazir (2010) suggested that management efficiency can be evaluated with reference to expenditure to income ratio, credit to deposit ratio, Asset utilization ratio, diversification ratio, earnings per employee ratio and expenditure per employee ratio. Further Kamau (2009) study on the intermediation efficiency and productivity of banks in the period after liberalization of banking sector in Kenya, used non-parametric approach (DEA) to measure the efficiency and productivity in the intermediation process of the banking sector in Kenya. Using data from 40 banks over a period of thirteen years (1997-2009) the results

indicated the general average efficiency performance of the commercial banks in Kenya under the study period had been 47 percent, 56% and 84% for the technical efficiency under the constant returns to scale, the variable returns to scale and scale efficiency respectively. Finally the findings also indicated that banks in Kenya had excess liquidity despite the need for credit in the economy which at an average of 40 percent is 20 percent higher than the minimum statutory requirement.

Management Efficiency and Corporate Governance are some of the key internal factors that determine the financial institution efficiency and profitability but appeared to be the complex aspects to be captured by financial ratios (Ongore, 2013). However, different authors have tried to use financial ratios of the financial statements to act as a proxy for management efficiency. One of these ratios used to measure management quality has been the operating profit to income ratio (Sufian & Razali, 2008; Sangmi & Nazir, 2010). However, some used the ratio of costs to total assets (Nassreddine, 2013). Measurement of management efficiency requires evaluation of the management systems, organizational discipline, control systems, quality of staff, and others.

The law and finance literature emphasized the decisive role of the institutional framework for financial development and output growth (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 1998). Since a suitable legal environment protects potential financiers against expropriation from entrepreneurs, it increases their willingness to surrender funds in exchange for securities and expands the size of financial markets. The two dimensions of the legal environment, legal rules and the quality of their enforcement are particularly striking. According to Himmelberg, Hubbard and Love (2002) stronger investor protection tended to decrease the cost of capital due to lower risk premium and could therefore accelerate the speed of capital accumulation. Beck and Levine (2004) argued that legal institutions were suitable to explain differences in the degree of financial development across countries to a large extent. Galindo and Micco (2004) concluded from their analysis that higher investor protection reduced the elasticity of credit supply to shocks and hence the amplitude of the credit cycle. Following Boone, Breach, Friedman and Ohnson (2000) for the measures of corporate governance, in

particular the effectiveness of protection of minority shareholders are crucial to understand the extent of exchange rate depreciation and the decline of stock markets during the Asian crisis in 1997/98, even after controlling for macroeconomic determinants. Wurgler (2000) gave evidence that higher protection of minority investors could boost capital allocation.

Using a cross section of countries and industrial sectors, Perotti and Volpin (2007) found that competition and entry rates were positively correlated with investor protection in branches which depended more on external finance. Better formal protection, however, could not automatically improve the access to finance, as reforms could be captured by the elites. Poor legal enforcement and unclear property rights limited the ability of individuals to raise funding (Rajan & Zingales, 2003). According to Herger, Hodler and Lobsinger (2008) institutions constraining the political elite from expropriating finances thus having a positive effect on capital markets. Pistor, Raiser and Gelfer (2000) argued that legal reforms had a strong impact especially in transition economies.

Besides the legal system, Beck, Demirguc-Kunt and Levine (2003) stressed the role of historical determinants for financial development in former colonies. Legal traditions, brought by colonizers, differ in terms of protecting private investor and creditor rights and had a long lasting impact on financial development (Djankov, McLiesh & Shleifer, 2007). According to Girma and Shortland (2008) and Roe and Siegel (2011) democratic structures and political stability accelerated financial development. The banking sector benefited from regime stability and democracy, while stock market capitalization was often faster in democratic regimes. Following Calderon, Chong and Galindo (2001) trust was correlated with financial depth, efficiency and stock market development. Guiso et al. (2004) provided evidence that private households were more likely to accept financial instruments when social capital is high.

Ben et al. (2014) found out that institutional conditions were important determinants of financial development in both financial segments, even after controlling for standard macroeconomic determinants and fixed effects. For the banking sector, corruption

seemed to be the most decisive. For the stock market, the impact of corruption and law and order appeared to be relevant. While per capita income and inflation did not seem to play a vital role, openness to foreign trade was quite important for all areas of financial development. Overall, faster real economic integration is of key policy priority to improve financial development as a condition for higher GDP growth. Better law and enforcement practices and anti-corruption policies are strategies to accompany this process.

Developed and well-regulated financial markets were usually seen as a precondition for an efficient allocation of resources and could foster long term economic growth. On average, countries with better financial systems had experienced faster growth than those with less developed systems (King & Levine, 1993). According to Levine and Zervos (1998), developments in the bank and stock market were usually good predictors for subsequent output growth. Industrial sectors that were exposed to external finance expanded faster in countries with more favourable financial markets (Rajan & Zingales, 1998). This result holds independently of the nature of the financial system, whether it was dominated by banks or stock market based (Beck & Levine, 2002).

Fry (1997) and Beck et al. (2001) argued that the institutional aspects, such as the methods and quality of prudential supervision, affected the impact of financial liberalization policies on financial development. Laporta et al. (1997, 1996) showed that the quality of legal standards and laws of contract enforcement were important determinants of the development of capital markets. Rajan and Zingales (2003) argued that political instability hindered financial development process.

Mac-Kinnon (1991) and Johnston and Pazarbasioglu (1995) pointed out that budgetary discipline and monetary control was a prerequisite to any successful financial development policy in terms of efficiency and economic growth. Fry (1997) and Beck et al. (2001) argued that the institutional aspects, such as the methods and quality of prudential supervision, affected the impact of financial liberalization policies on financial development. Laporta et al. (1997, 1996) showed that the quality of legal

standards and laws of contract enforcement were important determinants of the development of capital markets. Rajan and Zingales (2003) argued that political instability hindered financial development process.

Khalfaoui (2015) found out that determinants related to banking and financial sector variables (institutional variables) and the level of economic and human development determined financial development in developed countries. While economic stability, legal and other institutional framework factors determined financial development in developing countries. He used credit to private sector as a proxy of financial development whereas banking and financial sector variable (like non-performing loans, financial structure and legal framework), broad money, trade openness, market capitalisation, inflation, current account deficit and index for credit information.

In conclusion, the foregoing discussions show that financial development can be influenced by the following institutional factors: 1) adequate legal systems promote rule of law and protects shareholders, investors, creditors and property owners 2) political institutions stability 3) regulatory efficiency and quality 4) government institutions, freedom from corruption 5) supportive corporate governance structure 6) financial structure and 7) credit risk management as reflected by non-performing loans. In the study non-performing loan factor is chosen to represent efficiency and quality, financial structure and management efficiency are proxies of corporate governance where the latter is calculated as total operating income as a percentage of total income of institutions.

2.4.2 Financial Openness

As a financial system develops and becomes more sophisticated, it often opens up to foreign capital and becomes more closely integrated with foreign financial systems. Economists agree that Foreign direct investment (FDI) inflows can foster growth by bringing in advanced foreign technology, managerial skills, and other knowhow and by making domestic markets more competitive through the entry of foreign companies.

However, in the absence of a sound and efficient financial system, foreign capital inflows may be misallocated, resulting in growth-crippling financial crisis. It is worth investigating the effect of financial openness on financial development.

Studies of the relationship between financial openness, finance development and growth revealed mixed results or provide little evidence on developing countries (Kose et al., 2009; Obstfeld, 2009; Quinn & Toyoda, 2008; Quinn, Schindler, & Toyoda 2011). Differences in the type of openness measure, the sample period, country coverage, and the choice of empirical methodology are the main reasons for the diverse findings in the literature.

One of the earliest studies of this type is by King and Levine (1993), who examine the relationship between financial depth (as measured by liquid liabilities) and three growth measures (real per capita gross domestic product (GDP) growth, real per capita capital stock growth, and total productivity growth), all averaged over the sample period. Using data for 77 countries over the period 1960–89, they found a statistically significant positive relationship between financial depth and the three growth measures.

Levine and Zervos (1998) analyze data for 47 countries over the period 1976–1993. They found the initial level of banking development and stock market activity to had had statistically significant relationships with average output growth, capital stock growth, and productivity growth.

Beck and Levine (2004) applied panel econometric techniques to new data to reexamine the relationship between stock markets, banks, and economic growth. They studied whether measures of stock market and bank development had a positive relationships with economic growth after controlling for simultaneity and omitted variable bias. They used data for 40 countries, over the period 1976–98, employing generalized method of moment's estimators. They found that stock markets and banks were jointly significant in affecting economic growth, suggesting that stock markets and banks provide different financial services.

Bekaert, Harvey, and Lundblad (2005) examined financial development and financial openness, using equity market turnover and private credit as measures of financial development and equity market liberalization as an indicator of financial openness. They found that equity market liberalization led to a 1% increase in annual economic growth over a 5-year period. Liberalization of the equity market had two effects. First, it directly reduced financing constraints, as more foreign capital became available. Second, it improved corporate governance, as a result of the increase in investment. The presence of financial development variables did not knock out the liberalization effect.

Various indicators have been developed to measure financial openness and integration. These indicators are often classified as de jure, de facto, and hybrid measures (Alesina, Grilli, & Milesi-Ferretti, 1994; Edison et al., 2004). The main source for most de jure indicators is the Annual Report on Exchange Rate Arrangements and Exchange Restrictions, published by the International Monetary Fund (IMF), which provides information on the extent and nature of rules and regulations governing external account transactions for a wide array of countries. These data have been widely used as the basis for binary measures of capital controls and financial openness

Quinn et al. (2011) surveyed a wide range of indicators on financial openness, identifying their properties and how the indicators related to one another. Among de jure measures, the KAOPEN index by Chinn and Ito (2008) and the financial openness index (FOI) by Johnston and Tamirisa (1998), and Brune and Guisinger (2006) cover the broadest range of countries and time periods. Chinn and Ito's index measures the extent of openness or restrictions in cross-border financial transactions. It is constructed using principal component analysis on four variables: the presence of multiple exchange rates, restrictions on current account transactions, restrictions on capital account transactions, and the requirement of the surrender of export proceeds.

An alternative way to measure financial integration is to use de facto indicators. Quantity based measures that rely on actual flows to best capture de facto integration for emerging markets and low-income developing countries. Gross flows (the sum of total

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inflows and total outflows) are preferred over net flows, because they provide a less volatile and more accurate picture of integration. Because gross flows tend to be volatile and prone to measurement error, however, the sum of gross stocks of foreign assets and liabilities should be expressed as a share of GDP (Kose et al., 2009). A widely used de facto indicator is Lane and Milesi-Ferreti's (2006, 2007) index, which is calculated as a country's aggregate assets plus liabilities relative to its GDP. This measure includes portfolio equity, FDI, debt, and financial derivatives.

2.4.3 Economic Growth Rate

IMF (2012) defines economic growth as the increase in the inflation-adjusted market-value of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in real gross domestic product, or real GDP, usually in per capita terms. The rate of economic growth refers to the geometric annual rate of growth in GDP between the first and the last year over a period of time. Implicitly, this growth rate is the trend in the average level of GDP over the period, which implicitly ignores the fluctuations in the GDP around this trend.

Benya (2010) established that trade openness, liquid liabilities, financial openness and the GDP growth rates determined financial development in Africa. He used a cross sectional and panel data techniques by using the banking sector indicator liquid liabilities (M3) as dependent variable while trade openness, financial openness and the GDP growth rates as independent variables. The data used in this research ranged from 1975-2005. The empirical results from both regression types suggested that trade openness had a significantly positive effect on Africa's financial development. Cross-sectional results showed that financial openness and the GDP growth rate are significantly negative in 2005. With the panel data results, financial openness was significantly negative in explaining financial development, while the GDP growth rate was insignificant suggesting that it was not an important determinant of financial development for African countries.

King and Levine (1993a) examined the relationship between economic growth and financial development indicators (liquid liabilities over GDP, bank credit over bank credit plus central bank domestic assets and credit to private sector divided by GDP) using cross-sectional data for 77 countries over the 1960-1989 period. They showed that a country's level of financial development can predict its level of economic growth.

Levine (1998) explored the effect of the banking sector development proxied by credit allocated by deposit-taking banks to the private sector divided by GDP, on economic growth, capital accumulation and productivity growth. His empirical analysis was based on 42 developed and less developed countries during the 1976-1993 period. By using a panel GMM estimator, he found a strong positive relationship between the exogenous components of banking development with economic growth. Levine and Zervos (1998) stated the impact of the stock market and the banking sector development on economic growth for a cross-section of 42 countries over the period 1976-1993. They showed that stock market liquidity and bank development predicted economic growth, capital accumulation and productivity growth. Levine et al. (2000) also evaluated the role of financial development in a pooled cross-section setup using averaged data spanning the period 1960-1995. Using a GMM estimator, the authors showed that financial intermediary variables, namely, liquid liabilities and private credit, have a statistically significant and positive effect on economic growth on a panel of 71 countries. Similarly, Cole et al. (2008) examined the relationship between banking sector stock returns and economic growth for 18 developed and 18 emerging markets over the period 1973-2001. By using dynamic panel techniques, they found a positive and significant relationship between bank stock returns and GDP growth.

Kar et al. (2011) borrowed the method from Kónya (2006) and examined the causality between financial development and economic growth for fifteen MENA countries for the 1960-2002 period. Empirical results showed that the direction of causality between finance and growth was sensitive to the measurement of financial development. They confirmed the existence of demand following and supply-leading hypotheses. Therefore the direction of causality seemed to be specific for the country and the financial

development indicator. This implied that financial sector and real sector were interrelated to each other in most cases.

Shaw and McKinnon (1973) argue that financial development plays a critical role in economy as it positively impacts economic growth. There are two schools of thoughts to this phenomenon. Firstly, financial development is seen as a consequence of the maintenances of positive real interest rates. The financial deepening resulting, which is one of the measures of financial development, impacts positively the commodity sector growth. These include currency, demand deposits, time deposits (each as a portion of real DGP) and M2/real GDP. Secondly, financial development impacts directly on investment growth and asset competition, thus ensuring that the relationship between investment and real interest remained negative. Gerschenkorn (1962) pointed out that several studies showed that countries such as Japan, Taiwan and china carefully paid attention to the balance between other sectors and financial sector development.

Patrick (1966) in his seminar paper postulated a dual causal (a bi-directional) relationship between financial sector development and economic growth. The two granger caused each other. He named the two relationships demand-following and supply-leading hypotheses respectively.However, the demand-following posited a causal relationship from economic growth to financial growth providing the strong evidence needed. When the economy grew, increased demand for financial services induced growth in the financial sector. The demand-following hypothesis posited that financial markets developed and progressed following the increased demand for their services from the growing real economy. Financial markets development was seen as a passive response to a growing economy. As the real sector expanded and grew, the growing economy would generate increased new demands for financial services which in turn would exert and intensify pressures to establish larger and more sophisticated financial institutions to satisfy the new demand for the services making financial deepening merely an outcome of growth in the real sector of the economy.

Robinson (1952) maintained that it was economic growth which created the demand for various types of financial services to which the financial system responded. She concluded that the demand exacerbated by a growing economy required more financial services. Economic growth rate is the percentage increase in GDP. Overall, these sets of literature provide evidence of economic growth causing financial development. The economic growth is measured by the growth rate in the real GDP.

2.4.4 Trade Openness

Benya (2010) established trade openness, liquid liabilities, financial openness and the GDP growth rates determined financial development in Africa. He used a cross sectional and panel data techniques by employing the banking sector indicator liquid liabilities (M3) as dependent variable while trade openness, financial openness and the GDP growth rates as independent variables. The data used in this research ranged from 1975-2005. The empirical results from both regression types generally suggested that trade openness had a significantly positive effect on Africa's financial development. Cross-sectional results showed that financial openness and the GDP growth rate are significantly negative in 2005. With the panel data results, financial openness was significantly negative in explaining financial development, while the GDP growth rate was insignificant suggesting that it was not an important determinant of financial development for African countries. Bekaert et al. (2006) stressed that market openness brings down volatility through enhancing risk diversification process.

Trade openness, one of the main aspects influencing globalization today is believed to contribute to financial development. Rajan and Zingales (2003) argued that unconstrained trade combined with capital flows served as an incentive for industrial and financial incumbents to push for financial development. This was because government's role in the financial sector declined due to unconstrained openness and industrial and financial incumbents would turn to finance from the open foreign markets to fund their projects. Incumbents would push for financial development because new opportunities emerged due to trade and financial openness could generate profits that

compensated for the negative impact of increased competition. They concluded that trade openness benefits financial development positively. Baltagi, Demetriades and Law (2007), using panel data techniques and annual data, proved that trade openness and financial openness together with economic institutions determined the financial development dissimilarity across countries. These results showed that countries that were least open could benefit greatly in terms of financial development if they opened either their trade or capital accounts. These countries could have even had greater benefits if they opened both, though opening only one could still result in banking sector development. On the other hand, countries that were most open benefited the least from added openness. Results from a study conducted by Kim, Lin and Suen (2010) consisting of 88 countries over the period 1960–2005 suggested that trade openness did play a critical role in determining the level of financial development. They found a positive long-run and negative short-run effects of trade openness on financial development indicating that trade openness eventually contributed to financial development. However, when the countries were grouped in terms of income and inflation levels, the findings were consistent only in low-income or high inflation economies.

Law and Habibullah (2009) provided evidence that shed light on the influence of institutional quality, trade openness and financial liberalisation on financial market development, using data from 27 economies (the G-7, Europe, East Asia and Latin America) during 1980-2001. The dynamic panel data analysis results demonstrated that real income *per capita* and institutional quality were statistically significant determinants of banking sector development and capital market development. The trade openness, however, was more prominent in promoting capital market development. In terms of financial liberalisation, the empirical results suggested that domestic financial sector reforms tended to promote banking sector development, whereas stock market liberalisation was potent in delivering stock market development. Nevertheless, the financial liberalisation programmes were more responsive in developed economies. Mendoza et al. (2008) suggested that global financial imbalances could be the outcome

of financial integration when countries differed in financial markets development. Countries with more advanced financial markets accumulated foreign liabilities in a gradual, long lasting process. Differences in financial development also affected the composition of foreign portfolios in that countries with negative net foreign asset positions maintained positive net holdings of non-diversifiable equity and FDI. The far reaching reforms that integrated capital markets during the 1980s and 1990s were based on the benefits that financial globalization could give in terms of efficient resource allocation and risk-sharing across countries. But these arguments generally abstracted from the fact that financial systems differed substantially across countries, and those differences had remained largely unaltered despite the globalization of capital markets. In short, financial integration was a global phenomenon, but financial development was not. The countries with different financial markets characteristics chose different compositions of foreign portfolios.

Opening domestic markets to foreign goods, known as trade liberalization, can be a key driver of financial development. It can weaken the political power of entrenched business interests that might otherwise block institutional reforms, a point that is emphatically made by Rajan and Zingales (2004) in their book Saving Capitalism from the Capitalists. Trade liberalization, which promotes a more competitive environment, lowers the revenue of entrenched firms so that they need greater access to external sources of capital. Thus, they become more likely to support reforms that promote a deeper and more efficient financial system. This is agreement with research findings that a deeper financial sector positively was associated with greater trade openness (Rajan & Zingales, 2003; Svaleryd & Vlachos, 2002). Free trade also promotes financial deepening by reducing corruption. High tariffs breed corruption because importers have incentives to pay customs officials to avoid tariffs by smuggling in goods.

Countries that restrict international trade are found to be more corrupt (Ades & Di Tella, 1994). Thus facilitating production for overseas markets creates a greater need for a well-functioning financial system.

The argument by the World Bank (2001) and Goldberg (2004) gave a case of effects of trade globalization on financial reform in China. As Chinese enterprises increasingly entered international markets, they needed a better financial system that could ensure that the allocation of their high domestic savings was done efficiently and responsive to market developments. Although it had taken time, globalization is still helping to generate the demand for an improved financial system, which is driving the reform process. Overall, following the literature trade openness is represented by the value of exports and imports as a percentage of GDP.

2.4.5 Financial Development

Roubini and Bilodeau (2008) defined financial developments as enabling infrastructure (factors, policies, and institutions) that lead to effective financial intermediation and markets, and deep and broad access to capital and financial services. A good measurement of financial development is crucial in assessing the advancement of financial sector and understanding the corresponding impact on economic growth and poverty reduction.

Current empirical studies have used endogenous growth models to investigate the impact of financial development on economic growth in developing countries. Boulila and Trabelsi (2004) explored the finance-growth nexus for sixteen Middle East and North African (MENA) countries for the period 1960-2002 using co-integration techniques and Granger causality tests. He supported the hypothesis that causality ran from the real to the financial sector. However, there was minimum evidence in support of the view that finance significantly led to long-term growth in the MENA region. Al-Avad and Harb (2005) studying ten MENA countries over the 1969-2000 period applied the panel co-integration approach. He concluded that the long-run financial development and economic growth could be related to some level. However, in the short run, the evidence of causality was very weak.

Levine et al. (2012) identified four bases of measurement of financial development which have been conventionally accepted. These include: (a) size of financial institutions and market (financial depth), (b) degree to which individuals can use financial services (access), (c) efficiency of financial institutions in mediating resources and facilitating financial transactions (efficiency), and (d) stability of financial institutions and markets (stability). It's against this background that various indicators of financial development were established (See appendix 7 for comprehensive indicators).

Huang (2010) in his study identified indicators of financial development. The first measure, Liquid Liabilities (*LLY*), is one of the major indicators used to measure the size, relative to the economy, of financial intermediaries, including three types of financial institutions: the central bank, deposit money banks and other financial institutions. It is calculated as the liquid liabilities of banks and non-bank financial intermediaries (currency plus demand and interest-bearing liabilities) over GDP. The second indicator, Private Credit (*PRIVO*), is defined as the credit issued to the private sector by banks and other financial intermediaries divided by GDP, excluding credit issued to government, government agencies and public enterprises, as well as the credit issued by the monetary authority and development banks. It measures general financial intermediary activities provided to the private sector.

The third, Commercial-Central Bank (*BTOT*), is the ratio of commercial bank assets to the sum of commercial bank and central bank assets (Huang, 2010). It proxies the advantage of financial intermediaries in channeling savings to investment, monitoring firms, influencing corporate governance and undertaking risk management relative to the central bank. Next are two efficiency measures for the banking sector. Overhead Costs (*OVC*) is the ratio of overhead costs to total bank assets. The Net Interest Margin (*NIM*) equals the difference between bank interest income and interest expenses, divided by total assets. A lower value of overhead costs and net interest margin is frequently interpreted as indicating greater competition and efficiency. The last are three indices for stock market development that include 1) Stock Market Capitalization (*MCAP*), the size index, is the ratio of the value of listed domestic shares to GDP. 2) Total Value Traded

(*TVT*), as an indicator to measure market activity, is the ratio of the value of domestic shares traded on domestic exchanges to GDP, and can be used to gauge market liquidity on an economy-wide basis. 3) Turnover Ratio (*TOR*) is the ratio of the value of domestic share transactions on domestic exchanges to the total value of listed domestic shares. A high value of the turnover ratio will indicate a more liquid (and potentially more efficient) equity market.

Ayadi, Arbak and Ben Naceur (2013) used the three indicators of financial development discussed to measure financial development. These included: 1) Credit to private sector (%GDP). 2) Bank Deposits (%GDP). 3) stock Market capitalization (% GDP). While Scott Standley (2008) in measuring financial market development in Sub-Saharan Africa used five indicators to measure financial development namely Credit to private sector (% GDP), Deposit money- bank assets (%GDP); Value traded, Turnover ratio and Market capitalization (%GDP). Odeniran and Udeage (2010) in determining financial sector development and economic growth relationship in Nigeria used the following to measure financial development 1) M2/GDP – Which is a measure of financial deepening, 2) Ratio of bank deposit liability to GDP – measures capacity of banking sector to allocate funds between savers and firms, 3) Domestic credit to GDP – indicates the extent of financial intermediation, 4) Ratio of private credit to GDP – measures how commercial FIs are able to locate profitable investments, risk management, monitor managers and mobilize funds.

Cihak, Demirguc-Kunt, Feyen and Levine (2012) following the same argument together with the World Bank established the indicators of financial development which are widely accepted. For the banking sector, the domestic credit to GDP ratio (CREDIT) serves as a proxy for financial depth. It refers to credits to private firms and households provided by commercial banks. Credits from central banks or issued to public agencies are excluded from this measure. The size of the banking sector is described by assets held by deposit money banks (ASSETS) and liquid liabilities (LIQUID), both expressed as a percentage of GDP. Bank assets refer to claims to the domestic nonfinancial sector, including governments, public firms and the private sector. Liquid liabilities are

currencies and interest bearing liabilities of bank and non-bank financial intermediaries. To ensure stationarity all variables are expressed relative to the cross section average and expressed as a percentage of the latter. To describe the stock market development, market capitalization (CAPITAL) is selected since it comprises the value of all companies which are listed at national bourses. Its ratio to GDP points to the ability to raise capital and provide risk diversification for the market participants. Organized trade of domestic equities (TRADE) proxies stock market liquidity and is expressed relative to GDP. Rising liquidity might trigger higher investment of firms as it could allow a more efficient allocation of financial resources. TRADE is complemented by turnover (TURNOVER) defined as the ratio of total domestic shares traded and market capitalization (that is trading relative to the market size). A small but very active market tends to have low capitalization rates but high turnover rates. An increase in turnover might be caused by a reduction of transaction costs, for example. Incorporating information from market capitalization, trade and turnover can provide a more comprehensive picture of stock market development than the individual series. Therefore, an aggregate index (STOCK) is constructed by the same approach applied to the banking sector.

The measures of financial development are derived from the functions performed by financial institutions and markets in the economy (World Bank & IMF, 2005). The financial system provides five key services: (a) savings facilities/mobilization, (b) credit allocation and monitoring of borrowers, (d) risk mitigation, and (e) liquidity services. Through its effect on financial markets, investor protection influences the real economy. Beck et al. (2000) reinforced this fact that financial development can accelerate economic growth in three ways. First, it can enhance savings. Second, it can channel these savings into real investment and thereby foster capital accumulation. Third, to the extent that the financiers exercise some control over the investment decisions of the entrepreneurs, financial development allows capital to flow toward the more productive uses, and thus improves the efficiency of resource allocation. All three channels can in principle have large effects on economic growth.

World Bank adopted and used the indices that were propagated by Cihak, Demirguc-Kunt, Feyen and Levine (2012). The World Bank's Global Financial Development Database (GFDD) developed a comprehensive yet relatively simple conceptual 4x2 framework to measure financial development worldwide. This framework identifies four sets of proxy variables characterizing a well-functioning financial system: financial depth, access, efficiency, and stability. These four dimensions are then broken down for two major components in the financial sector, namely the financial institutions and financial markets (Appendix 4). For the banking sector, the domestic credit to GDP ratio (CREDIT) serves as a proxy for financial depth. It refers to credits to private firms and households provided by commercial banks. Credits from central banks or issued to public agencies are excluded from this measure. The size of the banking sector is described by assets held by deposit money banks (ASSETS) and liquid liabilities (LIQUID), both expressed as a percentage of GDP. Bank assets refer to claims to the domestic nonfinancial sector, including governments, public firms and the private sector. Liquid liabilities are currencies and interest bearing liabilities of bank and non-bank financial intermediaries.

In conclusion, four measures of financial development are used in this study. The first measure, Liquid Liabilities (*LLY*), is one of the major indicators used to measure the size, relative to the economy, of financial intermediaries as calculated as the liquid liabilities of banks and non-bank financial intermediaries (currency plus demand and interest-bearing liabilities) over GDP. The second indicator, Private Credit (*PRIVO*), is defined as the credit issued to the private sector by banks and other financial intermediaries divided by GDP and measures general financial intermediary activities provided to the private sector. Commercial-Central Bank (*CCB*), is the ratio of commercial bank assets to the sum of commercial bank and central bank assets that proxies the advantage of financial intermediaries in channeling savings to investment, monitoring firms, influencing corporate governance and undertaking risk management relative to the central bank. Lastly, Net Interest Margin (*NIM*) equals the difference

between bank interest income and interest expenses, divided by total assets. It is an efficiency measures for the banking sector.

2.4.6 Government policy

Government economic policies measures to what extent the government attempts to influence the economy. The national budget generally reflects the economic policy of a government, and it is partly through the budget that the government exercises its three principal methods of establishing control: the allocative function, the stabilization function, and the distributive function.

Arshad et al. (2005) suggested that Government restriction on the banking system such as interest rate ceiling, high reserve requirement and direct credit programmes hindered financial development and reduced output growth (McKinnon 1973 and Shaw 1973). McKinnon 1973 and Shaw 1973 postulated that the government intervention in the pricing and allocation of loanable funds impeded financial repression mainly depressing real interest rate. Government facing only limited option such as inflationary financing, further deteriorated the real interest rate. There were many reasons for such generalized improvement in macroeconomics.

Levine (2001) argued that the strength of financial sector structure for both banking and stock market reinforced the government efforts in dealing with market volatility consequently economic failure. Kose and et al. (2006), Eichengreen (2001), Alfaro & et al. (2004), and Klein (2005) gave a discussion of the literature on financial globalization using a unified conceptual framework. Their Studies focused more specifically on the necessary preconditions for, and the appropriate sequencing of, financial reforms, macroeconomic policies, and institutional development, on the one hand, and capital account liberalization, on the other.

Montiel (2003) averred that macroeconomic policies influenced financial development. Macroeconomic policies affected the prospects of financial-sector development through

income per capita and quality of institutional environment as fast growing income per capita led to credit-worthy firms and improvement in the institutional environment to enable financial intermediation. This resulted in a reduction in premiums associated with external finance, thus leading to growth of financial intermediation and increasing the roles of markets such as that in securities. He further explained how certainty in the macroeconomic environment coupled with effective and efficient macroeconomic policies can accelerate the growth and development of financial markets.

Another key government policy is government debt. Kumhof and Tanner (2005) researched the impact of government debt on financial intermediation and found that government debt had a positive impact on financial development. This is the case since government provides infrastructure and serves as a benchmark for private sector bond markets, which to a large extent determines the success of overall financial development.

According to Spiegel (2007) high inflation signals failure of government fiscal and monetary policies. Inflation is a variable that is of concern not in its own right, but as an indicator of economic mal-performance. Whereas high public or government debt is occasioned by fiscal deficits that which should be avoided because they 'crowd out' private investment, can lead to a loss of investor confidence, and are inflationary.

2.5 Critique of existing literature relevant to the study

Since financial development is not directly available, it needs to be proxied by observable variables. However, the latter capture only specific dimensions of the overall phenomenon and provides an incomplete picture. Therefore, different indicators are considered to assess the robustness of the results.

Empirically, Olivei and Klein (2000) and Edwards (2001) differed on the selected determinants and argued that financial development by the capital account liberalization,

is more effective than a set of mixed conditions relating to economic, legal and institutional structures.

Arteta, Eichengreen and Wyplosz (2001), showed that the importance of the sequencing of reforms reinforced by the absence of macroeconomic imbalances played a decisive role on the efficiency of financial development on economic growth. Chinn and Ito (2002), showed that financial development effect was even greater than the protection of shareholders and accounting norms standards observed which measure institutional quality. Ben Saada and Khalfaoui (2013) revealed that the conditions for financial development success did not essentially move together but varied according to the financial development indicator. The duo's results obtained showed that the level of the initial economic development and quality of legal and institutional framework was essential while macroeconomic stability had mixed effects. Given these empirical work that differed, depending on the method, the data, the sample, the horizon and sometimes the results obtained, they concluded that macroeconomic stability and legal and institutional environment are not inevitable conditions but vary with the particular case of each country.

Seven and Yetkiner (2015) found out that a well-functioning financial system may not always be sufficient to achieve economic growth in high-income countries, while it promotes economic growth in developing countries. Using panel data from 1991 to 2011, they conducted panel regression to examine whether the relationship between banks, stock markets, and economic growth differed across income levels, and to identify the channels through which financial development affects economic growth. The empirical evidence suggested that, in low- and middle-income countries, banking development had a positive impact on economic growth. However, contrary to the conventional findings, the impact was negative in high-income countries. Moreover, stock market development and economic growth were positively associated in both middle- and high-income countries.

There are more other determinants that are also appropriate. Different models can be established using distinct factors. For instance financial openness, another indicator positively linked to financial development is regarded as a key form of financial liberalization in a number of recent studies. Klein and Olivei (1999) using cross-sectional studies examined a wide range of countries over the period 1985-1995 and established a positive association between capital account liberalization and financial development. Similarly, Chinn and Ito (2005), using panel data for 108 countries over the period 1980 to 2000 established that financial openness could only have a positive impact on equity markets if legal systems and institutions were at a certain threshold level and were well developed; otherwise capital accounts could negatively affect equity market development linked to financial transactions was vital to benefit from open financial markets. Huang (2006) found that financial openness was a key determinant of the difference in financial systems development across countries and discovered a strong link to suggest that financial openness and development existed in stock markets. He further explained that stock market liberalization was part of extensive macroeconomic reforms like inflation stabilization and trade liberalization.

Other factors not discussed are found to play a critical role in influencing financial development. These factors include ethnic diversity, political power and political systems and geographic and natural endowments. Easterly and Levine (1997) showed that underdeveloped financial markets are as a result of ethnic tensions and this is especially true for Africa due to the continents high ethnic fragmentation. Haber (2002) show that the political institutions play a major role in a country's financial development through the decisive role they play and also their need for public finance. In terms of geographical location and natural endowments, Huang (2006) explains that geography affects financial development through its demand side though it can influence financial development through its supply side as well by influencing the quality of institutions. For example, the production of certain agricultural products and exploitation of certain natural resources influences the demand for external finance.

Patrick (1966) came up with the idea that the relationship between finance and growth could vary over time. In particular, at the initial stage, financial development will lead to economic growth; however as real growth takes place in the economy, this link becomes of lesser importance and growth induces the demand for greater financial services. This hypothesis has proven difficult to test especially in developing countries since it requires a long data set to split the sample accordingly. The early studies by Stammer (1972) and Jung (1986) that tried to validate this theory suffered from this information deficiency. As such, Jung (1986) tested Patrick's hypothesis by looking at both developed and developing countries and observed the frequency of a particular financial development growth relationship in one classification of countries as opposed to the other, rather than within the same country.

Some studies have suggested that other approaches can be employed to assess development. One particular approach has been the assessment of institutional compliance to regulatory requirements. For instance Nasieku (2014) used a different approach to establish the economic efficiency and behavior of banks by investigating Basel capital adequacy framework effect on economic efficiency and behavior of banking sector in Kenya. The study adopted non-parametric approach, Data envelopment Analysis (DEA) to analyze bank economic efficiency and Malmquist index (MPI) to measure growth of banks in Kenya during 2001-2011 period of analysis. Nasieku study focused on assessing how efficient resource allocation and utilization, efficiency productivity change, Basel capital adequacy framework in commercial banks in Kenya influenced their economically efficient, implementing Basel II risk sensitive measures and bank regulations and supervision. She further analyzed how banks private monitoring or disclosure requirement influence the economic efficiency of Kenyan commercial banks. Obiero, (2002) study focused on the adequacy of the banking sector regulatory framework. The study focused on reducing bank failure by analysing 39 banks which failed in Kenya in the period 1984 to 2001. He further noted that although the legal provisions of the banking regulatory framework was fairly comprehensive in

coverage and adequate in content to reduce probability of failure, timely intervention by CBK was important if they were to be effective.

2.6 Research Gaps

Reviewed theories have revealed that, financial development causes economic growth. While scholars like Huang (2005) suggested that the level of financial development in a country is determined by its institutional quality, macroeconomic policies, and geographic characteristics, as well as the level of income and cultural characteristics other scholars differed. For instance Olivei and Klein (2000) and Edwards (2001) differed on the selected determinants and argued that financial development by the capital account liberalization, is more effective than a set of mixed conditions relating to economic, legal and institutional structures. Various empirical studies reviewed, demonstrated that determinants of financial developments should not only be country-specific but also sector-specific.

Further studies of the relationship between determinants of financial development revealed mixed results or provided little evidence on developing countries (Kose et al., 2009; Obstfeld, 2009; Quinn & Toyoda, 2008; Quinn, Schindler, & Toyoda, 2011). Differences in the type of factors, the sample period, country coverage, and the choice of empirical methodology had been cited as the main reasons for the diverse findings in the literature. Thus despite the number of possible variables that have been presented as a cause of financial development, there is no particular variable that has been found to primarily explain the difference in the level of financial development across countries. Based on the above, it shows that there is a gap between theory and evidence in establishing the critical determinants that lead to financial development in a bid to bolster the required economic growth.

2.7 Summary

The chapter has discussed in details the various study variables that include institutional quality, financial openness, economic growth rate, trade openness and financial development. The study also reviewed the theories relevant to the study. Finally, the study has also looked into the conceptual framework of the study. This chapter covered a review of the literature regarding the theoretical underpinnings for finance-growth nexus, indicators of financial development and determinants of financial development. The theoretical literature supports the establishment of quality institutions, opening up for trade, financial liberalization, crafting appropriate macroeconomic policies to spur economic growth, attracting capital inflows and instituting financial reforms.

Reviewed theories have revealed that, financial development causes economic growth. Scholars like Huang (2005) using two prominent tools for addressing model uncertainty, Bayesian Model Averaging and General to-specific approaches, suggested that the level of financial development in a country is determined by its institutional quality, macroeconomic policies, and geographic characteristics, as well as the level of income and cultural characteristics. However, various empirical studies reviewed, demonstrated that determinants of financial developments should not only be country-specific but also sector-specific. Based on the above, it shows that there is a gap between theory and evidence in establishing the critical determinants that lead to financial development in a bid to bolster the required economic growth.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter gives a description of the methods and approaches that were adopted in conducting this study. It includes the research design, the study population, sampling size procedure, pilot study and data analysis. The type and sources of data expected, the methods of data collection and how reliability and validity were tested. The study in examining determinants of financial development in Kenya between 2006 and 2015 made use of primary data as well as secondary data on financial institutions, sourced for a period of ten (10) years.

Hoeln (1991) gives an outline of six (6) factors which scholars should follow when considering the methodology namely target population, sampling procedure and sample, description of research design, instrumentation, data collection procedures and lastly data analysis. Basic approach adopted was that of the theory testing through empirical research. A set of testable research hypotheses raised in chapter one were tested on the basis of theoretical underpinning and the findings of previous studies.

3.2 Research Design

The study used descriptive research design because the study tried to obtain information concerning the current status of the effects of the factors on the financial development in Kenya. A descriptive research design determines and reports the way things are (Mugenda & Mugenda, 2003). Descriptive research design was used in other studies such as the impact of credit risk management on financial performance of commercial Banks in Kenya by Ogilo (2012); banking survey report by Oloo (2011) and determinants of financial performance of commercial banks in Kenya by Ongore and Kusa (2013). In view of the above definitions, descriptions and strengths, descriptive survey is the most appropriate design for this study

3.3 Target Population

Lumley (1994) defines population as a larger collection of all the subjects from which a sample is drawn. Castillo (2009) agrees that population is a large collection of individual or objects that is the main focus of a scientific query. Thus it is for the benefit of the population that researches are done. Population refers to an entire group of individuals, events or objects having common observable characteristics (Mugenda & Mugenda, 1999). The population was drawn from banking and non-banking financial institutions in Kenya. This excluded the pension funds. A total of 236 financial institutions were targeted. The composition of financial institution is as presented in the table 3.1.

Table 3.1: List of licensed financial institutions in Kenya

Type of financial institution	Population	Reference/Source
Licensed commercial banks	43	CBK (2014)
Licensed SACCOs	135	SASRA (2014)
Licensed Deposit Taking Microfinance	9	CBK (2014)
Licensed Insurance Companies	49	IRA (2014)
Grand Total	236	

3.4 Sample Size and Sampling Technique

Stratified sampling was adopted. Blumberg, Cooper and Schilder (2011) posit that stratified sampling method of sample selection is appropriate when getting a sample from a heterogeneous population. This was appropriate since the financial sector has different institutions serving different constituents. Stratified random sampling was preferred because the population sampled was divided into homogeneous groups based on the characteristics considered important to the indicator being measured. This method also helped gain precision and flexibility in the choice of the sample design for different

strata and finally used that to estimate each strata in addition to the population estimated (Kothari, 2004). Sample is a representation of a total population enumerated for analysis (Kothari, 2009, Bryman & Bell, 2003). Gall and Borg (2008) defined a sample as a carefully selected subgroup that represents the whole population in terms of characteristics.

Sampling frame was the list of 236 financial institutions regulated and licensed/registered by the regulators in the financial sector (IRA, CBK & SASRA). Sampling frame was a list of population from which a sample was drawn (Leary, 2001). We undertook a three-stage sampling design.

Mugenda and Mugenda (2003) points out that in social science research there is a formula for determining the sample size. This formula was developed by Cochran (1963) for populations that are large, which was meant to yield a representative sample for proportions. This first stage s involved selecting the sample size for the whole study. This Stage three method was adopted as a model for a sample for this study as in the Equation 1:

$$n = \frac{Z^2 pq}{d^2} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\text{Equation 1}$$

where n = desired sample size for target population that is larger than 10,000

Z= Standardized normal deviation at confidence level 95% which is 1.96

P=the population in the target population that assumed characteristics being sought.

In this study is 50:50

q=the balance from p to add up to 100%. That's 1-p, which in our case was

(1-50%)=0.5

d=significance level of measure that is at 95% confidence level, the significance

level of 0.05

From the target population the sample for the study can be derived as:

$$n = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2}$$

$$= 385$$

According to Israel (1992) Cochran formula can be adjusted for small population that is less than 10,000. This is because a given sample size provides proportionately more information for a small population than for a large population. Stage two involved selecting samples in each stratum. The sample size was adjusted using Equation 2.

$$n = \frac{n_o}{1 + \frac{(n_o - 1)}{N}} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\text{Equation 2}$$

Where n_o *is* the sample size and N is is the population size. This gives the sample size as:

$$= \frac{385}{1 + \frac{(385 - 1)}{236}}$$

$$= 146.$$

Since the population of the FIs is heterogeneous we applied the proportional stratification to obtain the sample size for each stratum. According to Kothari (2004) the formula for this is

$$n_i = \frac{N_i}{N} \times n \ldots\ldots\ldots\ldots\ldots \text{ Equation 3}$$

Where

n_i =the sample size for the strata

N_i = the population size of the strata

N = the total population size and

n = the total sample size

By use of the equation 3 we generated the following for the various types of financial institutions:

Table 3.2: sample size of various types of Financial Institutions

Type of financial institution	Population	Sample Size
Licensed commercial banks	43	26
Licensed SACCOs	135	84
Licensed Deposit Taking Microfinance	9	6
Licensed Insurance Companies	49	30
Grand Total	236	146

Stage three involved selection of one respondent from every sampled FI that was sent questionnaires totaling to 146 respondents. We selected one manager of FI from the list of six managers provided by FIs by simple random sampling, to give each one a chance of selection.

Table 3.3: Sample size of respondents of FIs

Type of financial institution	Population	Sample Size	Respondents
Licensed commercial banks	43	26	26
Licensed SACCOs	135	84	84
Licensed Deposit Taking Microfinance	9	6	6
Licensed Insurance Companies	49	30	30
Grand Total	236	46	146

3.5 Data Collection Instruments

The study collected both primary and secondary data. Primary data was collected using questionnaires that were administered on a face to face basis as well as through email and allowed for any clarifications. The data was obtained from banks; insurance companies; SACCOs and Microfinance Institutions managers of the146 institutions sampled. The questionnaires were sent to the managers (top managers, finance managers and credit managers) of various financial institutions. The preference for the questionnaire was based on the premise that it gives respondents freedom to express their views or opinions more objectively. According to Krishnaswamy et al. (2006) questionnaire is good because standardized and impersonal formats of a questionnaire has uniformity and help in getting data objectively; information on facts, attitudes, motivation and knowledge can be obtained easily.

Other advantages of a questionnaire over other instruments included, information were collected from large samples, no opportunity for bias since it is presented in paper form, confidentiality is upheld, and it saves on time.

Secondary data was collected from annual published financial statements, bank supervision records at the Central Bank of Kenya (CBK), Kenya National Bureau of Statistics (KNBS) and Insurance Regulatory Authority (IRA). Cooper and Schindler (2006) further explained that secondary data is a useful qualitative technique for evaluating historical or contemporary confidential   public records, reports, government documents and opinions. This study used primary data collected using questionnaires. Ngumi (2013) observed that secondary data analysis is efficient and economical because data collection is typically the most time-consuming and expensive part of a research thesis.

Questionnaires and secondary data collection forms were divided into seven and three sections respectively, the first section comprised of personal data of the financial institution, section two covered institutional quality, section three covered questions on financial openness; section four covered questions on economic growth; section five covered questions on trade openness, section six covered questions on government policies, section seven cover questions on financial development. The secondary data form had first section on financial development, section on determinants of financial development and section three on moderators.

3.6 Data Collection Procedures

Primary data was collected through the administration of questionnaires to financial institutions managers in Kenya. Two research assistants were engaged to mainly make follow-up of the administered questionnaires. The entry point to the banks was mainly through the customer care departments. After the approval of the proposal by the University, a meeting was held between the researcher and research assistants, who were engaged to undertake the data collection. On the 5th of January 2016, a training session was held between the research assistants and the researcher to go through the

questionnaire in order to clarify any question that was not clear to them. The data collection process started on 6th January 2016 and ended on 30th February 2016. The study also employed secondary data for the independent and dependent variables that were collected by the use of secondary data forms.

3.7 Pilot Test

Pennearselvan (2006) defines pilot testing as a mini version of a full-scale study (also called 'feasibility' studies), as well as the specific pre-testing of a particular research instrument such as a questionnaire or interview schedule. Pilot studies are a crucial element of a good study design. In this study a pre testing was carried out for one month on fifteen institutions and after which the instrument was refined for data collection. The survey questionnaire pilot tested 10% of the sample population as represented by fifteen institutions. The survey questionnaires were modified in line with comments received from respondents. Pilot data was tested for reliability using the Cronbach's alpha.

According to Blumberg et al. (2011) a pilot test is aimed at showing the duration it will take to complete the questionnaire, confirm the clarity and logical flow of format, confirm if the questions are clear, short and to test the questionnaire credibility. The pilot should constitute at least 1% of the sample size. The pilot test was in adherence to the aforementioned recommendation where 15 questionnaires were piloted.

3.8 Validity

Validity is the ability to measure what is supposed to be measured and is applied to test whether the questionnaire measures what is aimed to measure (Zikmud, 2010). Validity was assessed based on the responses from the pilot test. To reduce the threat to content validity, experts in the field of study were asked to give their opinion on the instruments so as to judge the appropriateness.

3.9 Reliability

Leady (2004) suggested that to be reliable, each instrument must consistently measure the factor which they were designed to measure. Reliability concerns the extent to which an experiment test or any other measuring procedure yields the same results on repeated trials (Carmies & Zeller, 1979). One of the most widely used indices of internal consistency is the Cronbach's coefficient alpha (Carmies & Zeller, 1979; Cronbach, 1951). Cronbach's alpha ranges from 0 to 1 which is a measure of reliability. To assess the construct reliability, the extent of measurement error in a measure, this study used cronbach's alpha. Cronbach's coefficient alpha was used to measure the reliability in relation to operationation of the constructs. The study minimum test of reliability was based on Cronbach's alpha of 0.70. Cronbach's alpha test was generated by SPSS.

Carny and Kaiser (1977) came up with Kaiser-Meyer-Olkin (KMO). The KMO statistic is a Measure of Sampling Adequacy, both overall and for each variable. The partial correlation for each pair of variables in the factor analysis comprised of the correlation between those variables after partialling out the influence of all of the other variables in the factor analysis. (KMO) measure of sampling adequacy was undertaken. This index was used to examine the appropriateness of the factor analysis. High values (between 0.5 and 1.0) indicate factor analysis was appropriate. Values below 0.5 imply factor analysis implied inappropriateness (Magd, 2008).

3.10 Data Analysis and Presentation

Data analysis is a practice in which raw data is ordered and organized so that useful information can be extracted from it (Gall & Borg, 2007). The researcher incorporates 146 out of the 236 financial institutions operating in Kenya and focuses on the period between 2010 and 2015. This choice of 146 banks was guided by econometric theory for panel data analysis, which advocates for balanced panels for better regression results (Baltagi, 2005). The researcher analyzed data using normal regression analysis and random effects panel data analysis. A panel data set is one that follows a given sample of

individuals over time and thus provides multiple observations of each individual in the sample. One of the main advantages of Panel data is that it enables the researcher to control unobserved heterogeneity and secondly since panel data has both cross-sectional and time series dimensions, it provides the researcher with sufficient data points to reduce the likelihood of biasness in the parameter estimators.

The study generated both qualitative and quantitative data since investigative type of questions were used to collect data. Sekaran (2006) gave three main objectives of analyzing data help get a feel of the data, testing the goodness of data and testing the hypothesis developed for the research. The data for questionnaire was edited for completeness and consistency. Data was coded and the response from each item put into specific main theme. Thereafter analysis of data was done using descriptive statistics and inferential statistics (correlation analysis and panel multiple regression analysis). The panel methodology was aided by SPSS version 20.0 software. Descriptive in the form of frequencies, mean and standard deviation were used to analyze data so collected.

Descriptive statistics summarized and profiled the status of institutional quality, financial openness, economic growth and trade openness and development of financial institutions. The inferential statistics were used to test a number of hypothesized relationships so as to allow generalization of the findings to a larger population.

Multiple linear regression models were employed to establish the influence among predictor variables. Correlation measured the extent of interdependence where two variables were linearly related (Lucy, 1996). Pearson correlation was applied to establish the strength of the linear relationship between each of the independent variables and the dependent variables. The resultant correlation matrix indicating the magnitude and direction of association between dependent and independent variables was adopted. T-statistic was used to determine the relative importance of each independent variable in influencing financial performance. In the case of t-test and f-test, a statistic was considered to be statistically significant when the value of the test statistic falls in the critical region and in this case, the null hypothesis was rejected and the alternative was

upheld. This was done to determine the relative contribution (sensitivity) of each independent variable in affecting the development among 146institutions sampled for ten years (2006-2015). The multiple linear regressions model is shown later. Statistical Package for Social Sciences (SPSS) was used to assist in data analysis because it has in-build formulas. SPSS software is a comprehensive system for analysis of data and can take data from any type of file and use it to generate tabulated reports, charts, compare means, correlation and many other techniques of data analysis (Microsoft Corporation, 2003).The moderating effect of government policies was also evaluated.

In this study we regressed financial development on the identified determinants of financial development variable resulting in the following Multiple linear regression model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon. \ldots\ldots\ldots\ldots\ldots\ldots..\ldots.\text{Equation 4}$$

Where:

- **Y** is the Financial Development (FD)
- **β_0** is the constant

- **X_1** represent the Institution Quality
- **X_2** represent the Financial Openness
- **X_3** represent the Trade Openness
- **X_4** represent the Economic Growth
- **ε** is the error term

Secondly, t-test shall be used to test the fitted model of a regression line.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.. \text{Equation 5}$$

Where x_i, $i = 1, ..., n$ are known, α and β are unknown, and ε_i are independent identically normally distributed random errors with expected value 0 and unknown variance σ^2, and

Y_i, $i = 1, ..., n$ are observed. It is desired to test the null hypothesis that the slope β is equal to some specified value β_0 (often taken to be 0, in which case the hypothesis is that x and y are unrelated).

3.10.1 Moderating effect model

To determine the moderating effect of government policy (Institutional quality, financial openness, economic growth and trade openness) on the relationship between the financial development of financial institutions and its determinants, the study specified equations 3.4 and 3.5 as follows:

$$Y= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + Z(\beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4) \ldots\ldots\ldots\ldots\text{Equation 6}$$

Where: Z= Moderating variable= government policy (government debt and inflation)

3.10.2 Operationalization of Variables

Constructs of each item of the variable were measured by scale as summarized in Table 3.3.

Table 3.3: Measurement of variables

	Variables	Measures	Notation
Dependent	**Financial**	Credit to private = loans and advances to private sector/ Real GD	**PRIVO**
Variables	**development**	Liquid liability = customers deposits/GDP	
		Commercial bank-Central ratio= commercial banks assets/(commercial banks assets plus Central banks assets)	**LLY** **CCB**
		Net Interest Margin = (Interest income minus Interest expense)/ Total income	**NIM**
Independent	**Institution Quality**	Financial structure =Equity/Total Assets	**FINST**
Variables		Non-performing loan = Non-performing loans/total loans	
			NPL
		Management efficiency = Operating Income/Total Income	**MANEF**
	Trade Openness	Trade openness =Export plus Imports/GDP	**TRADOP**
	Economic Growth	Economic Growth = Real GDP rate	**ECOGR**
	Financial Openness	Foreign financial assets plus liabilities/GDP	**FINOP**
		Government debt = Government debt/GDP	**GOVDE**
	Government policy		**INFRAT**
Moderating		Inflation = Inflation Rate	
Variables			

3.11 Diagnostic Tests

Various diagnostic tests were conducted to ensure that the coefficients of the estimates were consistent and could be relied upon in making economic inferences. Diagnostic testing has become an integral part of model specification in econometrics. There have been several important advances over the past 20 years. As argued by Greene (2002) regression can only be accurately estimated if the basic assumptions of multiple linear regressions are observed.

Assumptions about the data were made before running a regression analysis. This was meant to help eliminate violation of assumptions that could have led to unreliable interpretation and making of inferences (Gujarati et al., 2014). The main assumptions for this cross-sectional dataset included multicollinearity, normality, heteroscadity and autocorrelation tests. The testing for these assumptions was important in helping determine the best method of data analysis.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents the actual findings derived from the questionnaires and secondary data forms and links them to the objectives of the study. Analysis was conducted in three steps; data preparation, data analysis and reporting. From the field work, the data was prepared by checking the questionnaires and data forms, editing, coding, transcribing and cleaning the data. The data was analyzed using Statistical Package for Social Sciences (SPSS version 20.0). The study employed descriptive Statistics, Pearson's correlation coefficients, multiple regression analysis and ANOVA test.

Descriptive statistics was used to describe the study variables from the sample profile. The ANOVA test was used to examine the existence of significant differences the effects of capital institutional quality, trade openness, income levels and economic growth on the financial development in Kenya. Regression analysis was used to test the research hypotheses, determine the existence of a significant relationship between the variables under study and to ascertain the effects of government economic policies had on the development of financial institutions. Discussion is presented on the findings consistent with or contrary to past empirical findings and theoretical arguments. This is guided by objectives of the study.

4.2 Pilot study results

A pilot study was conducted to pretest the tool used in data collection. Fifteen questionnaires were administered to fifteen (15) financial institutions which were randomly selected. Among fifteen financial institutions that were piloted only twelve responded translating to a response rate of 80%. In this study, an internal consistency was done using Cronbach's Alpha to measure how well the items were correlated to each other for all the questionnaires issued to different groups of pilot respondents. The 93

rule of the thumb for Cronbach Alpha is that the closer the alpha is to 1 the higher the reliability (Sekaran, 2010) and a value of at least 0.7 is recommended.

Table 4.1: Summary of Cronbach's Alpha Reliability Coefficient

	Reliability Statistics	Number of items	Cronbach's Alpha
1	Institutional Quality (IQ)	12	0.839
2	Financial Openness (FO)	12	0.798
3	Trade Openness (TO)	12	0.848
4	Economic Growth Rate (EGR)	12	0.817

From Table 4.1, Institutional quality had alpha 0.839, financial openness had alpha of 0.798, trade openness had alpha 0.848 and economic growth rate had alpha 0.817. All the measures had Cronbach's Alpha values greater than 0.7 which fall in the acceptable limit. This indicated a strong internal consistency among measures of variable items. The data collection instrument was therefore reliable and acceptable for the purposes of the study. This enhanced the ability to predict outcomes using the scores.

4.3 Primary data analysis

The population for the study was all Commercial Banks, Insurance companies and SACCOs in Kenya which were 236 as at May 2016. The research questionnaires were sent to 146 institutions out of which 109 were filled and returned. This represented a response rate of 74.6 percent which was considered sufficient for analysis as supported by Survey (2009). He indicated that acceptable response rate vary based on how the survey was administered and 70% is very good for surveys.

4.3.1 Background Information

The demographic profiles section evaluated the general information of the organizations in terms of the category of financial institution within which the organization belonged and respondents information in terms of position in the organization, education qualification, gender, age, department and tenure in the organization in years.

Category of Financial Institution

Respondents were asked to specify the category of their organizations. Table 4.2 shows results of the category of financial institution. They are categorized as Commercial banks, Insurance, Cooperative Society and Microfinance.

Table 4.2: Category of Financial Institution

Name of financial institution	Response rate in percent (%)
Commercial banking	36
Insurance	28
SACCO	31
Microfinance	5

Commercial Banks accounted for more than a third of the sample followed by SACCOs. Insurance companies accounted for 28% while Micro-finances were the least at 5%. This indicates that commercial banks are still actively dominating in the financial services sector in terms of visibility and readiness to share financial information.

Education Level

Respondents were asked about their highest level of education whose results are presented in Table 4.3. Education level is an indicator of knowledge, skills and capability.

Table 4.3: Education level of respondents

Respondents level of education	Response rate in percent (%)
Diploma	1
Graduate	28
Postgraduate	71

About three quarters of the respondents have a postgraduate qualification with 29% of them holding a Bachelors and Diploma qualifications. The managers in the financial services are highly educated to the level of postgraduate. This indicates that most of the respondents were senior managers who were well educated and had an understanding of their business model well based on their seniority.

Gender

Respondents were asked to indicate their gender. This was to help determine the gender parity in Financial Institutions. Table 4.4 shows results of respondents per gender.

Table 4.4: Gender distribution of respondents

Gender	Response rate in percent (%)
Male	67
Women	33

Male respondents accounted for 67% of the sample while the remaining third were females. This indicates that Financial Institutions management is primarily dominated by the male gender. The skewness towards male is high.

Age

The respondents were asked questions on their age. This was to ascertain the age levels of those charged with responsibilities in Financial Institutions. Figure 4.5 shows results of respondents per age.

Table 4.5: Age of respondents

Age (in years)	Response rate in percent (%)
21-30	6
31-40	41
41-50	44
Over 50	9

N=109

The populous age of the respondents was between 41 -50 bracket of age that had forty four percent of the respondents which indicated that most managers of financial services sector were in that age. This was closely followed by age bracket 31-40 with forty one percent. The two age brackets combined controls a percentage of 85% with little input from 21-30 and over 50 age brackets. Only nine percent were below 1 years and only 6% were above 50 years. The mature and more experienced manage financial Institutions as exemplified by the high

Department of operation

The department of operation indicates the appropriateness of the respondents in regards to the subject matter. Figure 4.6 contains results of the departments of operation.

Table 4.6: Departmental operation of respondents

Department	Response rate in percent (%)
Credit	21
Finance	57
Audit	15
Administration	3
Others	2

The Finance department accounted for Fifty seven percent of all respondents. This was followed by the Credit and Audit departments at 21% and 15% respectively. Administration department accounted for 3%. These findings were similar to Ngumi, (2013). The results demonstrated that of the respondents were members of staff. This was a clear indication that data was gathered from the respondents with technical knowledge and skills on institutional management.

Tenure of operation

Information on the number of years a respondent has worked in an organization was collected. This informs the level of familiarity a respondent holds on an organization. This was also to ascertain to what extent their responses could be relied upon to make conclusions for the study based on their working experience. This was in tandem with findings by Braxton, (2008) that respondents with a high working experience assist in providing reliable data on the sought problem since they have technical experience on the problem being investigated by the study. The results also indicated that employment

in financial institutions was stable. Most institutions have turned themselves into employers of choice in the country by initiating several employee retention strategies and hence many respondents had worked for the banking sector for more than six years. Results of the same are in Table 4.7.

Table 4.7: Tenure of operation

Tenure of operation (In years)	Response rate in percent (%)	
Less than 1	2	
Between 1 - 5	9	N=109
Between 5 - 10	76	
Over 10	13	

More than three quarters of the respondents have worked in the organizations for five to ten years. This indicates a proper institutional memory. Those with more than ten year of tenure are 13% and they override those who have worked for less than 5 years, which is 9%. A good percent of respondents fall in the over 10 year's category an indicator of institutional memory.

4.3.2 Diagnostic Tests

Various diagnostic tests were conducted to ensure that the coefficients of the estimates were consistent and could be relied upon in making economic inferences. As argued by Greene (2002) regression can only be accurately estimated if the basic assumptions of multiple linear regressions are observed.

Various assumptions about the data were made prior to running a regression analysis. This was to help eliminate violation of assumptions that could have led to validly unreliable interpretation and making of inferences (Gujarati et al., 2014). The main assumptions for a cross-sectional dataset of a study like this one included

multicollinearity, normality, heteroscadity and autocorrelation tests. Testing for these assumptions was beneficial because it helped in determining the best method of data analysis. This study carried out the two tests as discussed in the following sections.

4.3.2.1 Reliability Test

Reliability is a measure of the extent to which a research instrument yields consistent results or data on repeated trials (Mugenda & Mugenda, 2003). A pilot study was conducted on ten (12) organizations. Cronbach's alpha coefficient which is normally used to assess the internal consistency among research instrument items, was used to test whether the variables were within the acceptable range. The Cronbach's α (alpha) coefficient ranges from zero to one where zero means no consistency, and one means there is complete. The closer the Cronbach Alpha coefficient is to 1.0, the greater the internal consistency of the items in the scale and the closer the Cronbach coefficient is to zero (0), the less the internal consistency of the items in the scale. Table 4.8 presents the Cronbach's α values of the questionnaire items.

Table 4.8: Results of Reliability Test

Variable	Number of items	Cronbach Alpha	Decision
Institutional Quality	3	0.901	Reliable
Financial Development	4	0.897	Reliable
Trade openness		20.762	Reliable
Economic growth	2	0.756	Reliable
Financial openness		20.796	Reliable

The results of reliability tests shown in Table 4.8 indicate that all variables were reliable with Institutional quality having the highest reliability of Conbach alpha coefficient of 0.901 and economic growth the least level of reliability of Cronbach alpha of 0.756

4.3.2.2 Validity test

Validity is the degree to which the results obtained from the analysis of the data collected represent the phenomenon under study (Mugenda & Mugenda, 2003). It is also the ability of a research instrument to measure what is supposed to measure with precision (Babour, 1998; Cooper & Schindler, 2006). Validity can either be: face validity, content validity, criterion validity or construct validity.

Face validity and content validity of the research instrument were enhanced using expert opinion obtained during various proposal examinations in my University through departmental, open forum and doctoral committee presentations. Additionally, a pilot study was conducted by subjecting the instrument to a small sample of ten organizations to enhance content validity and determine respondent's understandability of the questions. No changes were made on the questionnaire. Finally, the instrument customized questions from prior studies to enhance criterion and construct validity.

4.2.2.3 Multicollinearity Test

Multicollinearity is a situation where independent variables have an exact or perfect linear relationship (Gujarati et al., 2014). This leads to unreliable and unstable estimates of regression coefficients in that it is difficult to distinguish the source of relationship in a regression. Variance inflation factor (VIF) was used to test for multicollinearity in this study. The rule of the thumb is that a VIF of more than 10 indicates presence of multicollinearity. Conversely, Tolerance which is 1/10, indicates that a value equals to or less than 0.1 signals presence of multicollinearity. These results are represented in Table 4.9.

Table 4.9: Multicollinearity Results

Variable	VIF	Tolerance (1/VIF)
Institutional Quality	1.09	0.9174
Financial Development	1.29	0.7752
Trade openness	1.45	0.6897
Economic growth	1.34	0.7463
Financial openness	1.24	0.8065

4.2.2.4 Normality Test

A normal distribution is not skewed and is defined to have a coefficient of kurtosis. The study used One-Sample Kolmogorov-Smirnov Test to determine whether the sample data have the skewedness and kurtosis matching a normal distribution. The Kolmogorov-Smirnov Test (Chakravart, Laha & Roy, 1967) is used to decide if a sample comes from a population with a specific distribution. The Kolmogorov–Smirnov test (K–S test or KS test) is a non-parametric test of the equality of continuous, one-dimensional probability distributions that can be used to compare a sample with a reference probability distribution (one-sample K–S test), or to compare two samples (two-sample K–S test). The Kolmogorov–Smirnov statistic quantifies a distance between the empirical distribution function of the sample and the cumulative distribution function of the reference distribution, or between the empirical distribution functions of two samples. Kolmogorov-Smirnov test is normally used to check the normality assumption in Analysis of Variance. A test for goodness of fit usually involves examining a random sample from some unknown distribution in order to test the null hypothesis that the unknown distribution function is in fact a known, specified function. The results are presented in the figure below.
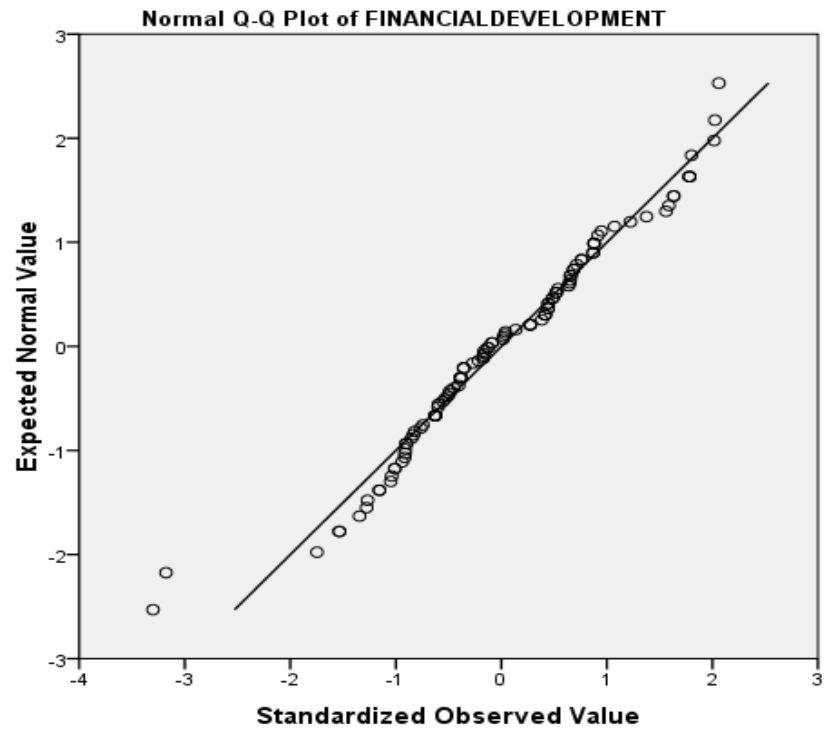
Figure 4.1: Normality of financial development variable

From the Figure 4.1 a goodness of fit test is observed indicating fitness. The comparison for normality between standardized samples with a standard normal distribution shows closeness. This implies that the financial development variable is normally distributed.

Table 4.10: One-Sample Kolmogorov-Smirnov Test for financial development

		FINANCIALDEVELOPMENTFINAL
N		109
Normal Parameters[a]	Mean	7.6481
	Std. Deviation	1.50702
Most Extreme Differences	Absolute	.070
	Positive	.070
	Negative	-.056
Kolmogorov-Smirnov Z		.735
Asymp. Sig. (2-tailed)		.653

From the table 4.10 normality was tested using the following hypothesis:

H_0:**The data is normally distributed**

Versus

H_1:**The data is not normally distributed**

Since P-value is greater than 0.05 (P-value =0.653) we fail to reject the null hypothesis and accept that the data for financial development is normally distributed.

For the independent variable, the researcher used Jarque-Berra (JB) statistic to determine whether the sample data had the skewedness and kurtosis matching a normal distribution. A normal distribution is not skewed and is defined to have a coefficient of kurtosis. A normal distribution JB statistics is expected to be zero (Guajarati, 2007). This followed Jarque-Bera preposition which was formalized by testing the residuals for

normality and testing whether the coefficient of skewedness and kurtosis were zero and three respectively (Brooks, 2008). In this study JB statistics values were: institution quality (skewedness 0.186, kurtosis 0.513); financial openness (skewedness 0.186, kurtosis 0.513), economic growth (skewedness 0.186, kurtosis 0.513) and trade openness (skewedness 0.186, kurtosis 0.513). These results were consistent with Ongore and Kusa (2013) study though their JB statistics result were 0.09 with skewedness of 0.14 and kurtosis of 3.38. Thus, the JB were very close to zero and consequently the variables were taken to be close to normal distribution. This implied that the research variables were normally distributed.

Table 4.11 Results of Normality Diagnostic Test

Variable	Descriptive Statistical	Statistical Values	Std. Error	Comment
Corporate Governance	Skewedness Kurtosis	.186, .513	.24124	Normally distributed Normally distributed
Capital requirement	Skewedness Kurtosis	.186 .513	.05620	Normally distributed Normally distributed
Credit risk Management	Skewedness Kurtosis	.186 .513	.07602	Normally distributed Normally distributed
Liquidity Management	Skewedness Kurtosis	.186 .513	.3379	Normally distributed Normally distributed

4.2.2.5 Heteroscedasticity

Heteroscedasticity is a violation of the Classical Linear Regression Models that there should be a constant variance or homoscedastic (Gujarati et al., 2014). Hence, heteroscedascity predicts the presence of more than one variance and it yields unreliable results. This study used the Breusch–Pagan–Godfrey Test where the null hypothesis is

that of homogeneity (constant variance variance) while the alternative is that of heteroscedasticity.

Table 4.12: Heteroscedasticity results

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of FD_Final
Chi2(1) = 1.31 and Prob> chi2 = 0.2526

Results from Table 4.12 indicates that there was no heteroscedasticity because the P-value was larger at all levels of significance (1%, 5% and 10%).

4.2.2.6 Autocorrelation

This study used the Wooldridge test for serial correlation to test for the presence of autocorrelation in the linear panel data. Serial autocorrelation is a common problem experienced in panel data analysis and .has to be accounted for in order to achieve the correct model specification. According to Wooldridge (2002), failure to identify and account for serial correlation in the idiosyncratic error term in a panel model would result into biased standard errors and inefficient parameter estimates. The null hypothesis of this test was that the data had no serial autocorrelation. If serial autocorrelation was detected in the study data, then the feasible generalized least square (FGLS) estimation procedure would be adopted. The test for autocorrelation was made by using Durbin and Watson (1951). Durbin--Watson (DW) is a test for first order autocorrelation as it tests only for a relationship between an error and its immediately previous value. This study used Durbin Watson (DW) test to check that the residuals of the models to establish whether they were not auto correlated since independence of the residuals is one of the basic hypotheses of regression analysis. The results in the Table 4.13 shows that there were no DW statistics

that were close to the prescribed value of 2.0 for residual independence; this implied that the data had no autocorrelation.

Table 4.13: Autocorrelation test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
Institutional quality	.091	.008	-.006	1.25746	1.603
Financial openness		.005	.001	1.25341	1.621
Economic growth	.004	.000	-.005	1.25674	1.601
Trade openness	.013	.000	-.005	1.25664	1.602
Financial development	.067	.004	.000	1.25393	1.583

4.3.3 Descriptive Statistics

Descriptive statistics comprising of means, coefficient of variation (CV) and standard deviation were used on all the variables; dependent and independent variables. Figures and graphs were also used to elaborate some variables.

4.3.4 Institutional Quality

This study sought to explore the effect of Institutional Quality on financial development in Kenya. A likert scale ranging from 1 to 5 which was used as follows: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree. Table 4.14 indicates the results of the responses over these issues.

Table 4.14: Descriptive Statistics for Institutional Quality

Variable	N	Mean	Standard Deviation
Did financial structure/size affected financial development	109	4.07	0.74
Institution experienced management efficient	109	4.25	0.56
Non-performing loans as a ratio of Total loans reduced	109	4.26	0.46
Average		**4.19**	**0.59**

The respondents were asked to indicate the extent of their agreement with given statements as shown in Table 4.14 which shows three statement questions that represent issues on institutional quality as a determinant of on financial development in Kenya. The responses were tabulated in Table 4.14 and analyzed using mean and standard deviation on a likert scale ranging from 1-5. In the likert scale where 5 represented strongly agree and 1 represented strongly disagree (Likert, 1932).

The results indicate that the financial structure/size affects financial development (mean=4.07, standard deviation=0.18), Institutions experienced management efficiency (mean=4.25, standard deviation= 0.56), Non-performing loans as a ratio of total loans reduced (mean=4.26, standard deviation= 0.46). The adoption of corporate governance obtained a grand mean of 4.19.

4.3.5 Financial Openness

This study sought to explore the effect of Financial Openness on financial development in Kenya. A likert scale ranging from 1 to 5 was used as follows: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree. Key subsections of financial openness were foreign financial assets and liabilities. Table 4.15 indicates the results of the responses over these issues.

Table 4.15: Descriptive Statistics for Financial Openness

Variable	N	Mean	Standard Deviation
Institution had foreign financial assets and liabilities	109	3.20	0.78
Foreign financial assets and liabilities affected development	109	3.17	1.17
Average		**3.19**	**1.95**

The respondents' extent of their agreement with given statements as shown in Table 4.15 shows two the effect of financial openness on financial development. The responses were tabulated in Table 4.15 and analyzed using mean and standard deviation on a likert scale ranging from 1-5. In the likert scale where 5 represented strongly agree and 1 represented strongly disagree.

The results indicate that the Institution had foreign financial assets and liabilities (mean=3.20, standard deviation=0.78):Foreign financial assets and liabilities affected development(mean=4.25, standard deviation= 0.617): The audit section of the firm is performing its duties as expected (mean=3.17, standard deviation= 1.17).The adoption of financial openness obtained a grand mean of 3.19.

4.3.6 Economic Growth

This study sought to explore the effect of Economic growth on financial development in Kenya. A likert scale ranging from 1 to 5 was used as follows: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree. Table 4.16 indicates the results of the responses over these issues.

Table 4.16: Descriptive Statistics for Economic growth

Variable	N	Mean	Standard Deviation
The country's growth in economy (GDP) affected firm's development	109	4.17	0.72
Increase in client's income (GDP Per capita) affected development	109	4.24	0.59
Average		**4.21**	**0.66**

The respondents response to the two given statements as shown in Table 4.16 indicate their extent of theirs agreement on the effect of economic growth on financial development. The responses were tabulated in Table 4.16 and analyzed using mean and standard deviation on a likert scale ranging from 1-5. In the likert scale where 5 represented strongly agree and 1 represented strongly disagree.

The results indicate that the country's growth in economy (GDP) affected firm's development (mean=4.17, standard deviation= 0.72), Increase in client's income (GDP Per capita affected development) (mean=4.24, standard deviation= 0.59). The adoption of economic growth obtained a grand mean of 4.21

4.3.7 Trade Openness

This study sought to explore the effect of Trade Openness on financial development in Kenya. A likert scale ranging from 1 to 5 was used as follows: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree. Table 4.17 indicates the results of the responses over these issues.

Table 4.17: Descriptive Statistics for Trade Openness

Variable	N	Mean	Standard Deviation
Institution financed clients export and imports	109	2.45	1.59
Clients export and import financing affected institution development	109	2.96	1.07
Average		**2.71**	**1.33**

The respondents' extent of agreement with given statements as shown in Table 4.17 shows trade openness effect on financial development. The responses were tabulated in Table 4.17 and analyzed using mean and standard deviation on a likert scale ranging from 1-5. In the likert scale where 5 represented strongly agree and 1 represented strongly disagree.

The results indicate that not all Institutions financed clients export and imports as indicated by low mean (mean=2.45, standard deviation=1.59), also Clients export and

import financing affecting institutional development mean was average (mean=2.96, standard deviation= 1.07) indicating almost half of respondents agreed. The adoption of trade openness obtained a grand mean of 2.71.

4.3.8 Government Policies

This study sought to explore the effect of Government Policies on financial development in Kenya. It is based on a likert scale ranging from 1 to 5 which was used as follows: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree. Table 4.17 indicates the results of the responses over these issues.

Table 4.18: Descriptive Statistics for Government Policies

Variable	N	Mean	Standard Deviation
Inflation management affected Firm's development	109	4.32	0.88
Government debt affected institutional development	109	4.33	0.77
Average		**4.325**	**0.825**

The extent of agreement with given statements among respondents as shown in Table 4.18 shows two statement questions that represent issues on capital requirement as an effect of central bank requirement on bank performance. The responses were tabulated in table 4.18 and analyzed using mean and standard deviation on a likert scale ranging from 1-5. In the likert scale where 5 represented strongly agree and 1 represented strongly disagree.

The results indicated that the inflation management affected firm's development (mean=4.32, standard deviation=0.88) and the government debt affected institutional development (mean=4.33, standard deviation= 0.77).The adoption of government policy obtained a grand mean of 4.325.

4.3.9 Financial development

Financial development is the dependent variable. It is based on a likert scale ranging from 1 to 5 as follows: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree. Table 4.19 indicates the results of the responses over these issues.

Table 4.19: Descriptive Statistics for Financial Development

Variable	N	Mean	Standard Deviation
Loans and advances to private sector increased	109	4.51	0.64
Profitability in terms of net interest margins grew	109	4.44	0.48
Customers' deposits (liquid liabilities) increased	109	4.32	0.94
Overall commercial bank assets as a ratio of total	109	4.24	0.48
CBK and commercial banks assets increased			
Average		**4.38**	**0.635**

The respondents indicated their extent of agreement with given statements as shown in Table 4.19 shows ten statement questions that represent issues on capital requirement as an effect of central bank requirement on bank performance. The responses were tabulated in Table 4.19 and analyzed using mean and standard deviation on a likert scale ranging from 1-5. In the likert scale where 5 represented strongly agree and 1

represented strongly disagree. The questions concern managers' judgment on capital requirement as its effects of CBK regulatory requirement on bank performance.

The results indicate that Loans and advances to private sector increased (mean=4.51, standard deviation=0.64), The Profitability in terms Of net interest margins grew (mean=4.44 standard deviation= 0.48), The Customers' deposits (liquid liabilities) increased (mean=4.32, standard deviation= 0.94), Overall commercial bank assets as a ratio of total CBK and commercial banks assets increased (mean=4.24, standard deviation= 0.48).The adoption of financial development obtained a grand mean of 4.38.

4.4 Secondary Data Presentation and Analysis

The study used charts to analyse and present the secondary data collected. Minter and Michaud (2003) asserted that the charts are versatile and good at showing relationships, making comparisons and highlighting trends. The proxies of the independent and dependent variables presented in the charts.

The first chart shows the financial development indicator for the years under study. The researcher wanted to track the trend of financial development in Kenya.
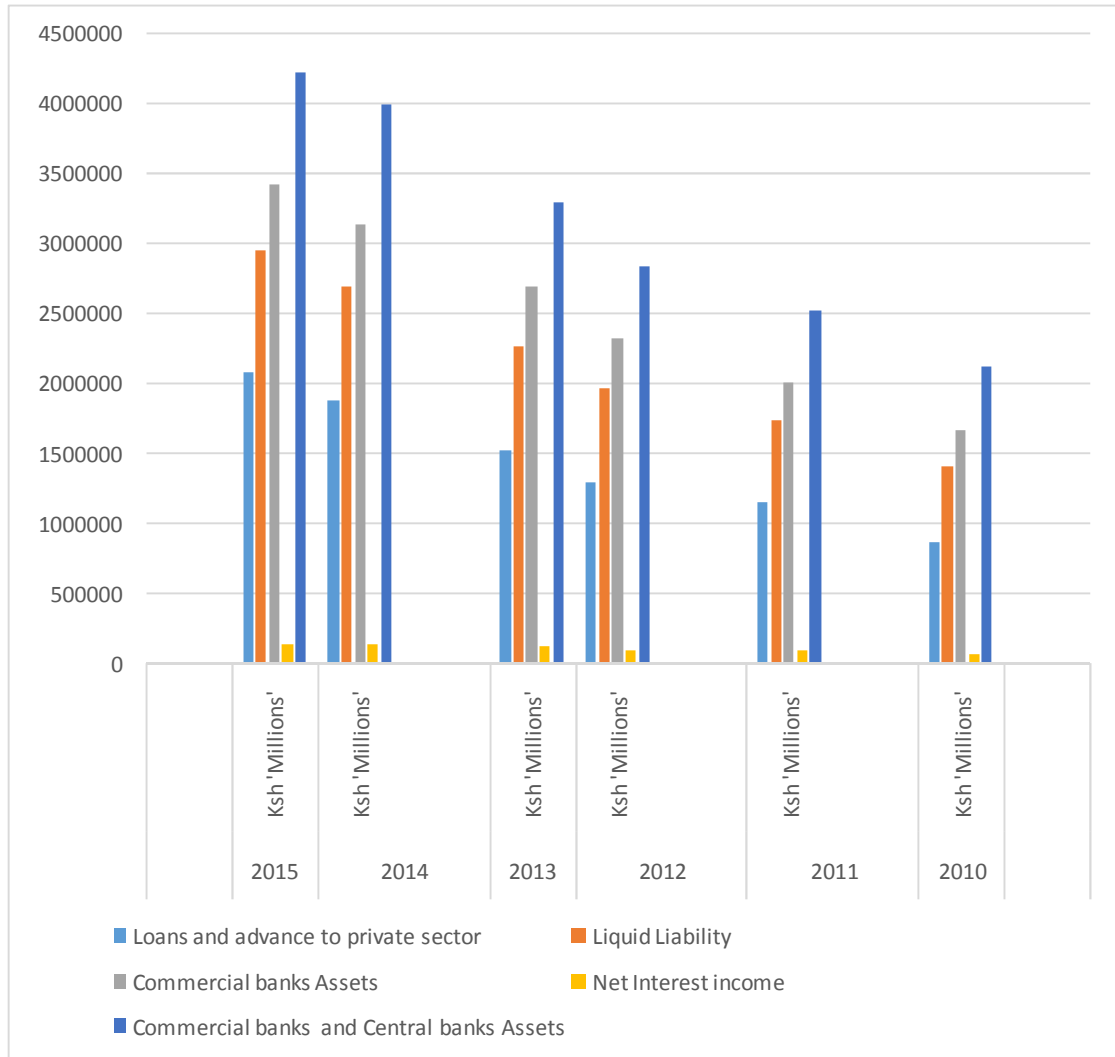
Figure 4.2: Financial development indicators

The Figure 4.2 shows an upward trend of credit to private sector, commercial banks assets, liquid liabilities and net interest income for years 2010 to 2015.Liquid liabilities rose from about kshs millions 1,500,000 in 2010 to about Kshs millions 3,000,000 in 2015. This is an upward trend. Liquid liabilities which is a dependent variable indicator that reflects the depth of financial institutions showed more deepening of financial institutions in Kenya for the period. The net interest margin which is a ratio of net interest income over total income was increasing over the period under study. This indicated an improvement in financial development over the years under study. The all

aspects of financial development namely efficiency, soundness (stability), depth and proper functioning on mandate delivery were achieved. The increase in net income efficiency reflects efficient institutions whereas increase in private credit and commercial banks central banks assets reflected the depth of institutions and how the institutions were properly functioning respectively.

To examine the institutional quality, the researcher obtained information on the institution quality indicators as presented in Figure 4.3 below.
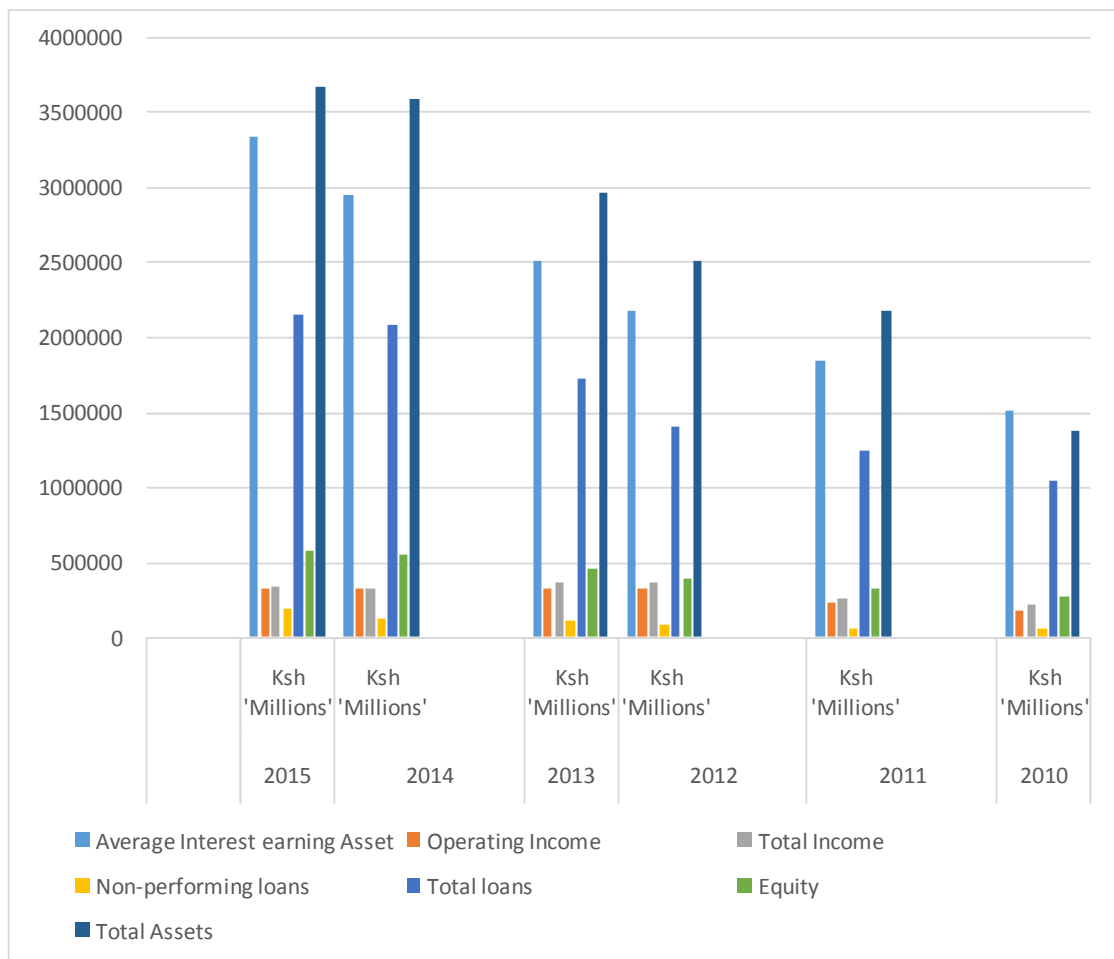
Figure 4.3: Institutional Quality indicators

Figure 4.3 shows an upward trend of total income, operating income, total assets and equity. Non-performing loans increased minimally in relation to total loans implying there was good credit risk management by financial institutions. Operating income contributed more to the total income explaining the increasing net interest income. This is implies that management efficiency improved in the period. The increase in assets was relatively more than equity. Financial structure/size indicator showed a strong and growing financial institutions.

To establish the trade openness as proxied by total exports and imports over total of GDP, the researcher obtained information on the indicators and presented in the Figure 4.4 below.
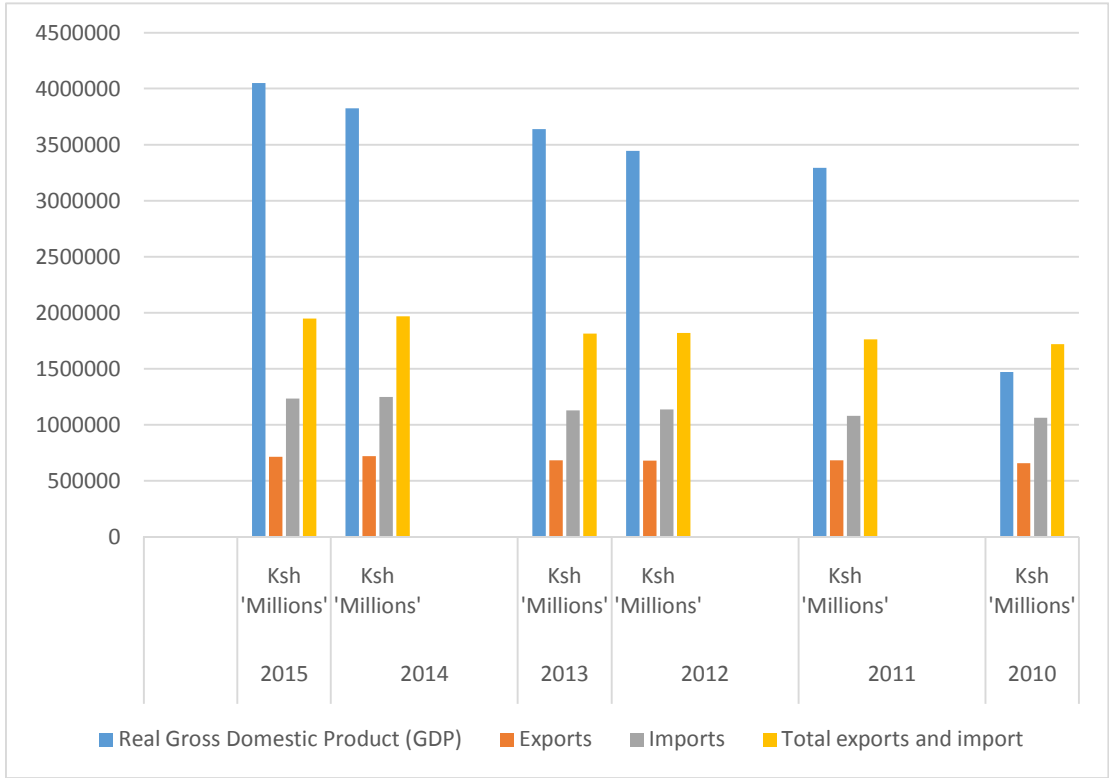
Figure 4.4: Trade openness indicators

Figure 4.4 shows an upward trend in real GDP, exports and imports. The volume of imports was higher than exports meaning in the period Kenya experienced unfavourable balance of trade. However, the increase in total of exports and imports relative to GDP was lower. This implies that the trade openness which is a ratio of total of exports and imports over GDP was negligibly increasing during the period under study.

The researcher also undertook to establish the economic growth of Kenya as proxied by Real GDP. This was taken as an independent variable. The following Figure 4.5 below indicates the trend over the years understudy.
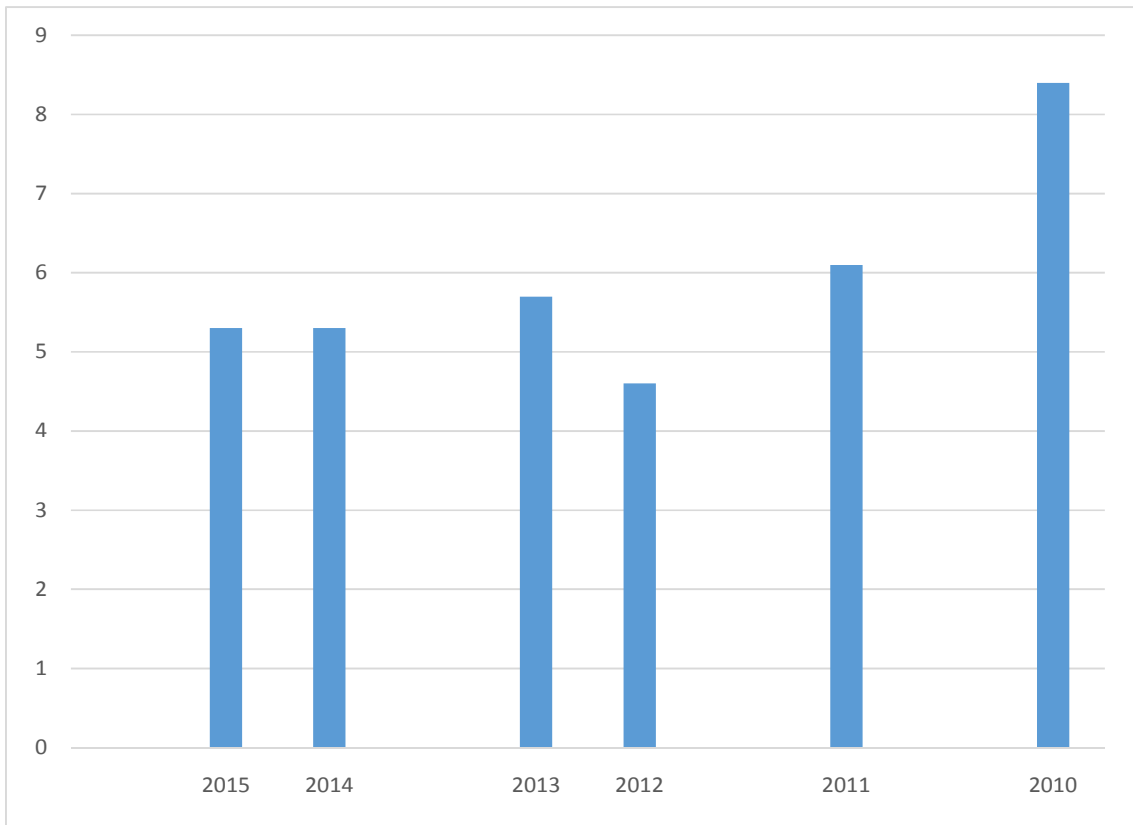
Figure 4.5: Real GDP growth rate for Kenya

As per the Figure 4.5, Kenya experienced highest economic rate in 2010 of 8.4% and slowed down to 6.1% in 2011.However, it remained steady at 5.3% in the years 2014 and 2015.The economy grew at a reducing rate.

The information gathered regarding government debt which was a moderating factor was presented in the Figure 4.6 below.
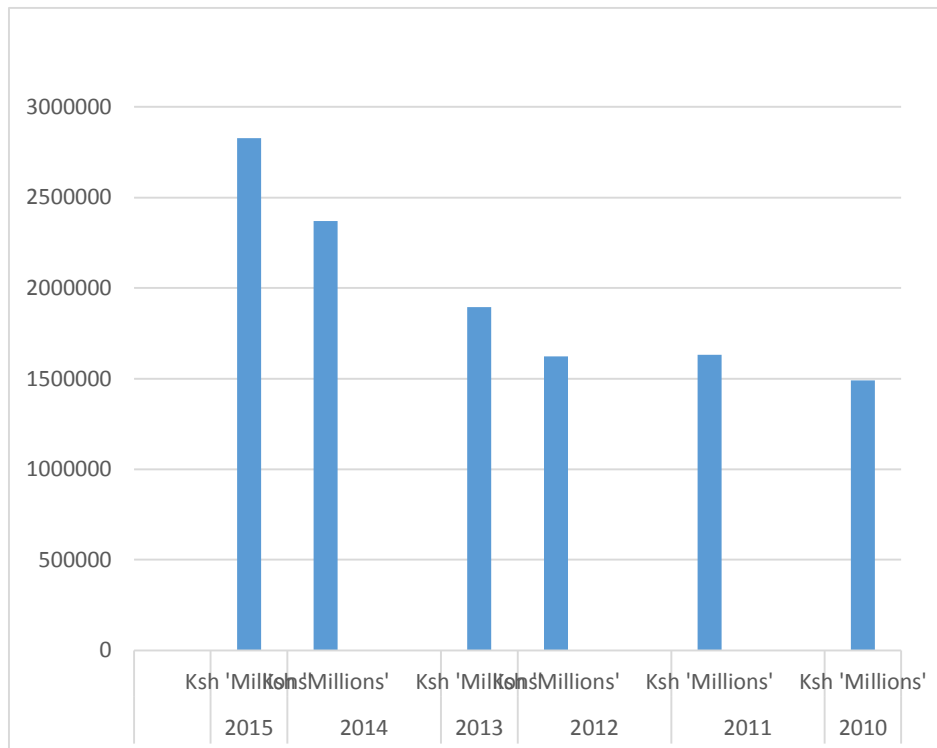
Figure 4.6: Government debt in Kenya

The government debt showed an upward trend. The increase was markedly observable from a low of Kshs Millions 1,500,000 in 2010 to Kshs Millions 2,800,000 in 2015.The government debt and GDP presented earlier increased unproportionately indicating that

government debt factor which was the taken as government debt as a ratio of GDP increased during the period.

The researcher determined inflation rate. This rate was taken as one of indicators of a government policy together with the government debt. Figure 4.8 show the inflation rate for the period.
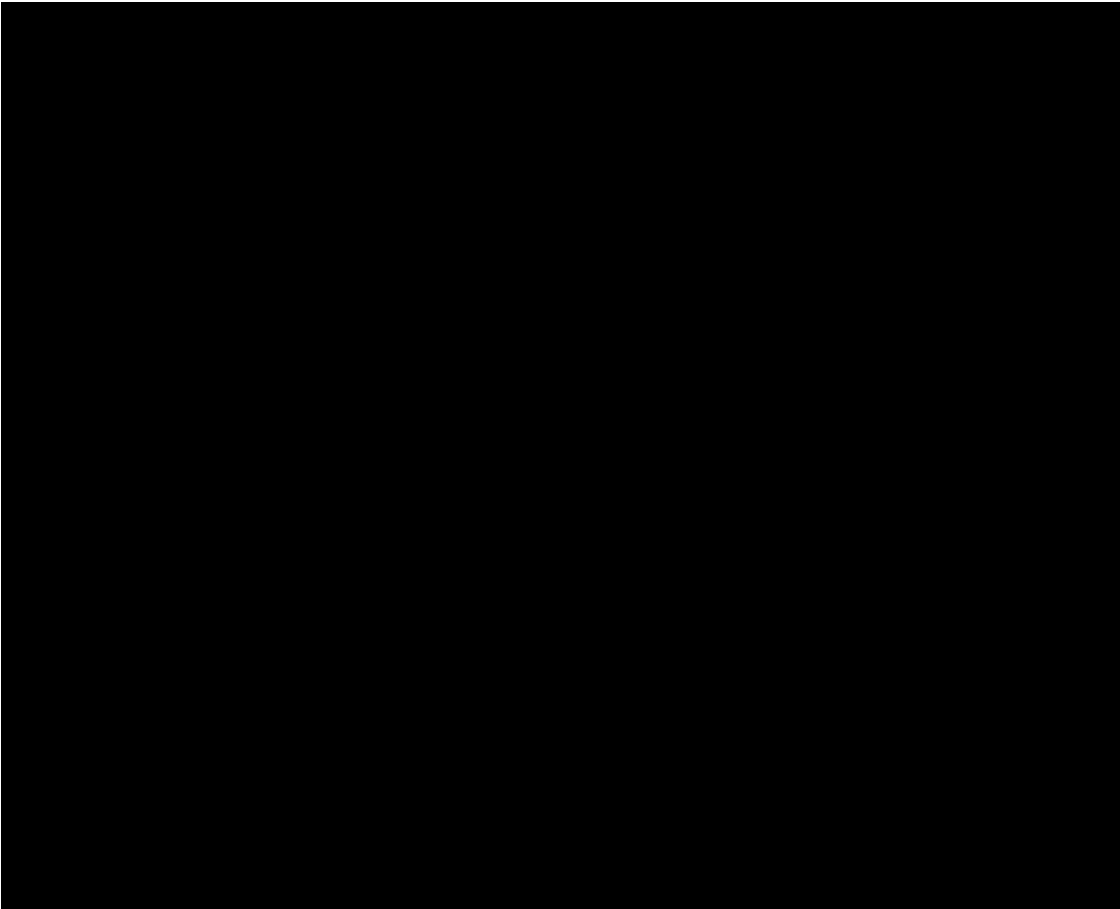
Figure 4.7: Inflation rate in Kenya

From the Figure 4.7, Kenya saw a varying inflation rate. Inflation varied from the lowest of 4% in 2010 rising to highest of 14.1% in 2011 and ending at 6.6%. The inflation management however, revealed a government effort to contain it at single digit as

reflected in the years 2012 to 2015. Thus the ending period saw a good inflation management policy.

4.5 Inferential Statistics

Inferential statistics use a random sample of data taken from a population to describe and make inferences about the population. Inferential statistics are valuable when it is not convenient or possible to examine each member of an entire population (Cox, 2006).Inferential statistics analysis was conducted through the use of correlation analysis and regression analysis to determine the relationship between the independent and the dependent variables.

4.5.1 Correlation

The significance of the relationship was tested at 95% level with a 2-tailed test where a statistically significant correlation was indicated by a probability value of less than 0.025. This meant that the probability of obtaining such a correlation coefficient by chance was less than 2.5 times out of 100, so the result indicated the presence of an association. Correlation analysis results for the association between determinants of Financial Development and the Financial Development is presented in Table 4.20.

Table 4.20: Correlations of Variables

	Institutional Quality	Economic Growth	Financial Openness	Trade Openness
Institutional Quality	1	.041	.031	.451
Economic Growth	.041	1	.472	.436
Financial Openness	.031	.472	1	.422
Trade Openness .	.451	.436	.422	1

From Table 4.20, the variables were not significantly correlated. A correlation coefficient of 1 shows high correlation of variables. There was none that had a coefficient beyond 0.5.

4.5.2 Regression results

A multiple regression model was run with Financial Development as the dependent variables. Independent variables included; Corporate Governance, Institutional Framework, Firm Size and Human Capital with Financial Regulations as the moderator.

According to Mugenda and Mugenda (2003) a correlation coefficient indicates the relationship between variables, it does not imply any causal relationship between variables and hence the need for further statistical analysis such as regression analysis to help establish specific nature of the relationships. In this section, multiple regression analysis is presented for Financial Development for the six years. In order to answer the question of the determinants of Financial Development, the proposed model is based on the relationship between various hypothesized variables on the Financial Development to build a regression.

The coefficients or beta weights for each variable allowed the researcher to compare the relative importance of each independent variable. In this study the unstandardized coefficients and standardized coefficients are given for the univariate and multiple regression equations. However, discussions are based on the standardized coefficients. The general model was subjected to testing using univariate and multiple regressions to establish the effect of each determinant on financial development. The dependent variable of the proposed model was financial development of financial institutions and the independent variables of the study were financial regulations, corporate governance, institutional framework, firm size and human capital. In testing the hypothesis, a regression equation model was used in the form of:

$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon.$

Where:

- **Y** is the Financial Development (FD)
- **β_0** is the constant

- **X_1** represent the Corporate Governance
- **X_2** Institution Framework
- **X_3** represent the Human Capital
- **X_4** represent the Firm Size (EG)
- **X_1** represent the Financial Regulation the moderator
- **ε** is the error term

Under the following regression outputs the beta coefficient may be negative or positive; beta indicates each variable's level of influence on the dependent variable. P-value indicates at what percentage or precession level of each variable is significant.

Multivariate Regression (Overall Model)

The research conducted a regression analysis on all independent variables (Institutional Quality, Economic Growth, Financial Openness and Trade Openness) with the dependent variables (financial development) to describe the relationship and its direction which became an overall model. Table 4.23 presents the overall regression results without the influence of the moderator (government policies).

Table 4.21: Regression Results of Overall Model

Model	Unstandardized Coefficients			Standardized Coefficients		
	B	Standard Error		Beta	t	Significance
Institutional Quality	0.677	0.127		0.346	5.311	0.000
Economic Growth	0.278	0.064		0.416	4.361	0.000
Financial Openness	0.411	0.187		0.146	2.195	0.030
Trade Openness	0.069	0.070		0.088	0.983	0.328

The regression result presented in Table 4.21 indicates institutional quality, economic growth financial openness and trade openness had a positive coefficients. The coefficient answered the following regression model which related the predictors (independent) and dependent variables. Most of the variables were significant at 95% apart from trade openness which was not significant at that level.

As per the SPSS generated table 4.25, the established regression equation was:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$ ………………………….Equation 4 became:

Y =0.677 Institutional Quality + 0.278Economic Growth + 0.411Financial Openness + 0.069Trade Openness.

The analysis of variance (ANOVA) on the effects of Financial Development was done to test statistically if the means were significantly different between these groups. The ANOVA test shown in table 4.26was used to test the significance of the model and to test the existence of variable variations within the model. The overall model is significant at 95% level of significance using the f test as shown in the following table.

Table 4.22: ANOVA of the overall model

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	7855.694	4	1963.923	289.523	.000
Residual	712.247	105	6.783		
Total	8567.941	109			

Result from Table 4.26 revealed that financial development with independent variables has F statistic of 289.523 and the P-value is 0.000. The P-value of 0.000 is within the set level of significance of 0.05. This result indicates that the overall regression model is statistically significant and is useful for prediction purposes at 95% level of confidence. This further indicates that the independent variables used (Institutional Quality, Economic Growth, Financial Openness and Trade Openness) are statistically significant in predicting financial development of financial institutions.

The following Table 4.23 shows the model summary of the overall model. The output for model fitness and value of adjusted R squared are indicated in the model summary

Table 4.23: Model Summary of the overall model

Model	R	R Square	Adjusted R Square	Std Error of the Estimate
1	0.958	0.917	0.914	0.002604

Table 4.23 shows the output for model fitness and value of adjusted R squared was 0.917. This shows that the variables (Institutional Quality, Economic Growth, Financial Openness and Trade Openness) tested explains 91.7% on the financial development in Kenya at 95% confidence interval. R is the correlation coefficient which shows the relationship between the study variables, from the findings shown in the table 4.23 there was a strong positive relationship between the study variables as shown by 0.958. The five independent variables that were studied, explain only 91.7% of the determinants of financial development in Kenya as represented by the adjusted R-Squared. This therefore means that other factors not studied in this research contribute 8.3%. Therefore, further research should be conducted to investigate the other factors (8.3%) that affect financial development in Kenya.

Test of Hypotheses

To draw inferences about the population of the sampled data was study used a regression model, T -test is widely adopted for hypothesis testing, which is introduced by William Sealy Gosset. This test-of-significance method is to verify the truth or falsity of a null hypothesis by using sample results, showing that the means of two normally distributed populations are equal. As a result, the key idea behind tests of significance is that of a test statistic (estimator) and the sampling distribution of such a statistic under the null hypothesis (Gujarati, 2004). In the case of t-test, t distribution is used, and a statistic is considered to be statistically significant if the value of the test statistic lies in the critical region, in which case the null hypothesis is rejected. The test could either be one-tail or two-tail. When the alternative hypothesis is composite rather with a certain

H_{01}: There is no significant relationship between institutional quality and financial development in Kenya.

As it presented in Table 4.25 institutional quality had significant relationship with the financial development (p=0.000; α=0.050) with a minimum of 95% confidence level. The above results thus lead to the rejection of Hypothesis H_{01}; there is no significant relationship between institutional quality and financial development in Kenya. The results also showed that it was positively related with bank financial development. By rejecting the null hypothesis the results indicated that there is significant relationship between institutional quality and financial development of commercial banks in Kenya.

H_{02}: Capital requirement has no significant effect on the financial performance of commercial banks in Kenya.

As presented in Table 4.25, economic growth had a significant relationship (p=0.000; α=0.050) with the financial development at a minimum of 95% confidence level. Based on these results of Hypothesis H_{02} (economic growth has no significant effects on the financial development in Kenya) was rejection of the null hypothesis. By rejecting the

null hypothesis the results indicated that economic growth had a significant effect on the financial development in Kenya.

H$_{03}$: There is no significant effect between Credit risk management and financial performance of commercial banks in Kenya.

As it presented in Table 4.25, financial openness had a significant relationship with the financial development ((p=0.030; α=0.050) with 95% confidence level. The above results thus lead to the rejection of Hypothesis H$_{03}$ that there is no significant relationship between financial openness and financial development in Kenya. The results also showed that there was a positive relationship. By rejecting the null hypothesis the results indicated that there is significant effect financial openness and financial development in Kenya.

H$_{04}$: Liquidity Management has no significant effect on the financial performance of commercial banks in Kenya.

Table 4.25 shows that trade openness had no significant statistical relationship with the financial development (p=0.328; α=0.050) at 95% confidence level. Thus we fail to reject the hypothesis **H$_{04}$** that trade openness has no significant impact on the financial development in Kenya. The results lead to acceptance of null hypothesis that trade openness had no significant effects on the financial development in Kenya.

Test for Moderating effect

Moderator variables influence the relationship between dependent variable and other independent variables. The direction and the magnitude of the relationship between the dependent variable and the independent variable is dependent on the value of a moderator (Saunders, Lewis and Thornhill, 2009). The study objective was to assess the moderating of economic policy on the relationship between effects of determinants of and financial development in Kenya. In this study, inflation and government debt were hypothesized to be moderators affecting the relationship between dependent (financial

development) and the independent variables (institutional quality, economic growth, financial openness and trade openness).

The null hypothesis (**H$_{05}$**) was that government policy does not significantly moderate the relationship between financial development and its determinants of in Kenya. In order to achieve this objective the researcher first tested whether the paths between the independent variables and the dependent variable, between the independent variables and the mediator and between the mediator and the dependent variable, were statistically significant. By specifying a model with financial development as the dependent variable, the study tested whether institutional quality (IQ), economic growth (EG), financial openness (FO) and trade openness (TO) have statistical significant relationships with economic policy.

The model is presented algebraically as follows;

$Y_{it} = \beta 0 + \beta_1 IQ_{it}*M + \beta_2 1 FO_{it}*M + \beta_3 EG_{it}*M + \beta_4 TO_{it}*M + \varepsilon$……………………3.4

Table 4.24 presents the output of the regression analysis after being moderated by the ownership identity.

Table 4.24: Regression results for Moderated model

	Unstandardized Coefficients		Standardised Coefficients		
	B	Std Error	Beta	t-Statistic	Sig.
Institutional quality*M	1.658	.431	.371	3.843	.000
Financial openness*M	1.569	.531	.343	2.955	.004
Economic growth*M	1.522	.383	.264	3.979	.000
Trade openness*M	.632	.262	.221	2.407	.051

The regression result presented in Table 4.24 indicates Institutional Quality, Economic Growth Financial Openness and Trade Openness had a positive coefficients. The coefficient are used to answer the following regression model which relates the predictors (independent) and dependent variables. All the variables are significant at 95%. This explains the significance of economic policies.

The moderated model is presented algebraically as follows;

$$Y_{it}=\beta0+\beta_1IQ_{it}*M+\beta_21FO_{it}*M+\beta_3EG_{it}*M+\beta_4TO_{it}*M +\varepsilon……………………….3.4$$

As per the SPSS generated table 4.24, the established regression equation was:

Y=1.658Institutional quality +1.569Financial openness +1.522Economic growth +0.632Trade openness +ε…………………….3.4

Table 4.25: Model Summary of the overall model

Model	R	R Square	Adjusted R Square	Std Error of the Estimate
1	0.980	0.960		0.9581.59497

Model summary in Table 4.25 shows the output for model fitness and value of adjusted R squared was 0.960. This shows that the moderated variables (Institutional Quality, Economic Growth, Financial Openness and Trade Openness) tested explains 96% on the financial development in Kenya at 95% confidence interval with a strong positive relationship between the study variables as shown by 0.980.

Table 4.26: ANOVA of the overall model

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	5655.956	3	1885.319	207.073	.000
Residual	965.089	106	9.105		
Total	6621.045	109			

Result from Table 4.26 revealed that moderated model of financial development with independent variables has F statistic of 207.073and the P-value is 0.000. The P-value of 0.000 is within the set level of significance of 0.05. This result indicates that the overall regression model is statistically significant and is useful for prediction purposes at 95% level of confidence.

This further indicates that the moderated independent variables used (Institutional Quality, Economic Growth, Financial Openness and Trade Openness) are statistically significant in predicting financial development of financial institutions.

As it can be observed from the summary of regression output in Tables 4.24 and 4.26, the moderating role of economic policies was strong. That means there is significant difference on the coefficients of parameters after being moderated by the inflation and government debt. Moreover, as indicated in Tables 4.23 and 4.25, the R squared and Adjusted R squared increased in magnitude after being moderated. Thus, the regression analysis results showed that hypothesis H_{05} can be rejected that the economic policies have a moderating effect on the relationship between determinants of and financial development in Kenya. This is dissimilar to and inconsistent with the findings Ongore and Kusa (2013) who reported the dissimilar results after examining the determinants of financial performance of commercial banks in Kenya the in year 2001 to 2010. Thus, it can be concluded that inflation and government debt moderated the relationship between financial development and its determinants in Kenya.

Table 4.27: Coefficients of Determination before and after Moderation

PREDICATORS	MODEL (ROA)
Individual Determinants (Non-moderated)	
Institutional Quality	0.032879
Financial Openness	0.035082
Economic Growth	-0.097720
Trade Openness	0.069
R2	0.917
Adjusted R2	0.914
Institutional Quality*M	1.658
Financial Openness *M	1.569
Economic Growth*M	1.522
Trade Openness*M	0.632
R2	0.960
Adjusted R2	0.9588
Observation	
Change in R2	0.43
In Adjusted R2	0.448

As per Table 4.27 inflation and government debt had a significant moderating effect on the relationship between the financial development and its determinants. As it can be observed from the correlation coefficients and coefficients of determination of the regression outputs before and after moderation, it was found that moderating effect was significant.

4.6 Discussion of Regression Results

The study sought to establish the relationship between financial development and its determinants in Kenya. For the years 2010 to 2015 the study found that greater variation in financial development in Kenya was due to changes in institutional quality, financial openness, economic growth and trade openness. The study further revealed there was a strong relationship between the study variables such as institutional quality, financial openness and economic growth which were statistically significantly in influencing financial development in Kenya. However, the trade openness though showed a relationship with financial development, the relationship was not statistically significant. The study also found that institutional quality, financial openness, economic growth and trade openness were positively related to financial development in Kenya.

The study found that there were small changes on financial performance of commercial banks due to changes in institutional quality, financial openness, economic growth and trade openness This is an indication that institutional quality, financial openness, economic growth and trade openness slightly influenced the change in financial performance of commercial banks in Kenya. After the introduction of economic policy proxied by inflation and government debt, the study revealed that there was great variation on the financial development due to changes in institutional quality, financial openness, economic growth and trade openness. The adjusted R squared value was found to be greater than that of the period before the introduction of the economic policies. This is an indication that inflation and government debt resulted to institutional quality, financial openness, economic growth and trade openness greatly influencing the financial development in Kenya in the period under study.

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These findings concurred with the findings of Benya (2010) who found that trade openness, liquid liabilities, financial openness and GDP growth rates determined financial development in Africa. Aoki (2001), Hartwell (2013) and Sachs (2003) vouched for strong institutions as they greatly impact financial development. The results are also in consistent with Kumholf and Tanner (2005) findings that government debt positively impacts financial development. Inflation is seen as signaling a failure in government fiscal and monetary stances that negatively affects financial development.

The institutional quality as proxied by management efficiency and financial structure the latter being corporate governance factors, influences the financial development. This results agreed with Obiero (2002) who identified ineffective board and management malpractices as the most dominant reasons for bank failure further noting that although the legal provisions of the institutions regulatory framework was fairly comprehensive in coverage and adequate in content to reduce probability of failure, timely intervention was important if they were to be effective.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents discussions, conclusion and recommendations arising from the analysis conducted. The conclusion and recommendations were based on the objectives of the study. The chapter concludes on the preceding chapters along with the results of all empirical studies. First and foremost, focus is placed on the summary of the findings and hypotheses confirmation as derived from this thesis by referring to the research proposition. Secondly, policy and further study recommendations are covered which are of interest to researchers as well as policy makers. Lastly, suggestions for further study are also captured as a way of filling the gaps identified in the study.

5.2 Summary of Findings

Earlier researches notwithstanding the scarcity of studies on the wider financial institutions had mixed results on determinants of financial development in Kenya. The study sought to establish the determinants of financial development in Kenya with a bias on financial institutions. In the years 2010 to 2015 the study found that greater variations in the financial development of financial institutions were due to changes in institution quality, financial openness, economic growth and trade openness as moderated by government policy.

5.2.1 Institutional quality

The study established a positive relationship between institution quality (financial structure/size, management efficiency and Credit risk management) and the financial development in Kenya. From the study findings, the null hypothesis that institutional quality does not influence financial development in Kenya was rejected since there was

a relationship between institutional quality and financial development. The influence was statistically significant with a strong coefficient of 0.677. The three proxies of institutional quality (financial structure/size, management efficiency and credit risk management) are critical in influencing the financial development. as institutions are run well, decisions made without bias and diversity. The secondary data analysis corroborates by establishing an upward trend in the three proxies a long with financial development. This results vouches for a big institution in terms of equity and assets. The findings are in consistent with Pranowo et al., (2010) who established that total assets together firm age are critical in financial development as they forestall financial distress. Management efficiency is too an important aspect in development of financial institution. This results corroborated Ongore and Kusa (2013) position that management efficiency (Corporate Governance) is positively related to the three performance ratios namely return on assets (ROA) and return on equity (ROE).

5.2.2 Financial Openness

From the model established financial openness has a relationship with financial development which is positive with a coefficiency of 0.411. The no relationship hypothesized earlier was rejected. The foreign financial assets and liabilities were found to influence the financial development in Kenya. The findings are consistent with Benya (2010) study that attributed financial development to trade openness, financial openness and economic growth. Foreign direct or indirect investment in the financial institutions opens them up to much needed finance and expertise.

5.2.3 Economic Growth

The relationship between economic growth and financial development exist which is positive with a coefficiency of 0.278. This consequently led to the rejection of the hypothesized no relationship. When the economy grow at 0.278 the development of financial institutions stands one. The results confirmed Patrick (1966) demand-following hypothesis that posited a causal relationship from economic growth to financial growth.

When the economy grows, increased demand for financial services induces growth in the financial sector. Consequently the financial markets develop and progress following the increased demand for their services from the growing real economy.

5.2.4 Trade Openness

The findings indicated that trade openness influences financial development positively. The coefficient of the relation was 0.069. However, the relationship was not found to be statistically significant. Nevertheless, with financing of exports and imports the financial institution array of products increases that spurs profitability. The relationship was confirmed byRajan and Zingales (2003) who argued that the unconstrained trade combined with capital flows served as an incentive for industrial and financial incumbents to push for financial development.

5.3 Conclusions

The study revealed that there were great variations on the financial development of financial institutions due to changes in institutional quality, financial openness, economic growth and trade openness. This is an indication that institutional quality, financial openness, economic growth and trade openness had great effects on the financial development of financial institutions. Statistically management efficiency, credit risk management and financial structure/size proxies of institutional quality did significantly lead to financial development. The size of the institution in terms of asset base and equity matters. More big institutions tend to leverage on economies of scale to register higher profits which is a significant measure of growth. A public policy to increase capitalization may necessarily impact stability and growth in financial institutions. The findings confirmed Beck, Demirgut, leaven and Levine (2008) study that finance, firm size and growth are related. The stewardship of institutions by management affects the development of financial institutions. Credit risk management efforts that are directed at reducing non-performing loans influence the development of institutions. This findings agreed with Michael, Jensen and Meckling (1976) who

demonstrated how managerial behavior, agency costs and ownership structures affect financial development.

According to the study growth of the economy plays a major role in determining the development or otherwise of financial institutions in Kenya. The growing trend of economy and corresponding increase in incomes offered demand for financial services.

Financial openness affected institutional development positively. The two proxies of financial openness indicated a strong positive relationship with financial development. The increase in foreign financial assets and liabilities had a corresponding improvement in financial development. When there is foreign investment in financial institutions, the institutions enjoys greater financing and associated foreign expertise. The findings agreed with Huang (2006) study that financial openness lead to financial development. Trade openness though not statistically significant showed a positive relationship with financial development in Kenya. This implies that the exports and imports provide demand for financial services. This study is consistent with Kim, Lin and Sue (2010) study that established the dynamic effects of trade openness on financial development.

The study further revealed that with the government policies there was greater change in financial development of financial institutions attributable to institutional quality, financial openness, economic growth and trade openness. Agreed with Johnston and Pazarbasioglu (1995) findings that budgetary discipline and monetary control was a prerequisite to any successful financial development policy in terms of efficiency and economic growth. Financial institutions responded positively to government debt and inflation management. Increasing government debt benefits the financial institutions in terms of providing demand for risk-less lending services. However, the inflation affects the financial development. Boyd, Levine and Smith (2001) also found a negative impact of inflation on financial institution particularly the banking ones. Government policy of management of inflation to a single digit influenced positively the development of many financial institutions in Kenya. The study confirmed Caballero and Krishnamurthy (2004) on the influence of fiscal policy on financial depth.

5.4 Recommendations

The following policy recommendations were proposed to improve the development of financial institutions in Kenya. Tressel and Detragiache (2008) demonstrated that financial sector reforms lead to financial development. Reforms are needed to achieve the much needed growth. According the study to achieve management efficiency, management/corporate governance structures that help in running and directing institutions should be strengthened and supported by relevant regulations. Financial institution managers should endeavor to reduce operational costs as this negates their profits margin thus leading to low financial performance. This can be achieved through proper accountability structures, systems and leverage on technology. Financial institutions should also check their credit policy and practices. The regulators and financial institutions should design most applicable and convenient loan management protocols. Risk management as one such tool should be strengthened to help reduce non-performing loans. Credit risk management frameworks should particularly be improved. Financial structure/size as represented by capital requirements and asset size had a positive relationship with financial development. There is need to craft policies that ensure affordable minimum capital requirements to ensure stability without necessarily locking out small institutions that may be profitable.

The government policy makers should pursue expansionary policies that ensures economic growth. Monetary policies (inflation control) and fiscal policies in terms of public debt management should be pursued to stimulate demand for financial services. The government should craft policies that promote free trade and help attract foreign investment that opens up the economy. These policy measures shall stimulate demand for financial services and help financial institutions in acquiring the much needed investment financing from the international financial markets.

5.5 Areas for Further Research

This study did not include all players in the financial system like building societies, cooperatives societies not regulated by SASSRA, pension institutions and other players in the financial system. A further study is recommended to include these entire financial system players or individual industry players. Also important to research on will be other determinants of financial development as the researched ones only explain less than a hundred percent. The researcher recommends that future research should be directed towards validating the results of this study by conducting a similar research in Kenya through collection of data from different sources with a varied duration.

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APPENDICES

Appendix1: Introduction Letter

Charles Ndalu

Jomo Kenya University of   Agriculture and Technology

CBD Campus

Dear Sir/Madam

<u>REF: QUESTIONNAIRE</u>

I am a PhD in Business Administration student at Jomo Kenyatta University of Agriculture and Technology. One of the requirements for the award of the degree is to write a thesis in an area of my study. To this end I request for you assistance in providing sincere feedback in the questionnaire attached.

I have chosen study the relationship between financial sector and economic growth in Kenya. The gap from the literature prompted me to research on this important area.

The research is purely for academic purpose and all information will be treated with confidentiality. Please note that it would be optional to identify yourself otherwise you can elect to remain anonymous.

Thanking you in advance.

Charles Ndalu

Candidate Signature ………………………

Dr. GichuhiWaititu

Supervisor Signature ………………………

Appendix 2: Questionnaire

QUESTIONNAIRE

Introduction

This questionnaire is concerned with establishing the determinants of financial development in Kenya.

SECTION A: BACKGROUND INFORMATION (*Fill in the blank spaces and tick once in the below given choices of all questions*).

1. Name of your organization (optional)_____
2. Category of your financial institution (please tick as appropriate)

   Commercial banking ☐

   Insurance ☐

   Cooperative Societies ☐

   Microfinance ☐

3. What is your position in your organization _____
4. What is your highest educational qualification? Please tick as appropriate; Certificate or

   Diploma ( ) Graduate ( ) Postgraduate ( ) other_____
5. Gender Male ☐   Female ☐
6. Age Bracket   i. 18 – 20 ☐

   i. 21- 3 ☐
   ii. 31- 40 ☐

   iv. 41 – 50 ☐
   v. Over 50 ☐
7. Department

   a) Credit ☐

   b) Finance ☐

   c) Audit ☐

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d) Administration ☐

e) Others ☐

8. How long have you worked with FI (Tick as appropriate)

a)Less than 1 year ☐

b)Between 1 – 5 years ☐

c)Between 5– 10 years ☐

d) Over 10 years ☐

SECTION B: INSTITUTIONAL QUALITY

This section aims at exploring the effect of Institutional Quality on Financial Development in Kenya. Please indicate your agreement or otherwise with the following statements using the following likert scale. **Key: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree**

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Has financial structure/size affected your institutional development					
2	Institution experienced management efficiency in the last six years					
3	Non-performing loans has reduced in the last six years (credit risk management)					

SECTION C: FINANCIAL OPENNESS

This section aims at exploring the effect of Financial Openness on Financial Development in Kenya. Please indicate your agreement or otherwise with the following statements using the following likert scale. **Key: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree**

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Institution has foreign financial assetsand liabilities					
3	Foreign financial assets and liabilities has affected institution's development					

SECTION D: ECONOMIC GROWTH

This section aims at exploring the effect of Growth in Economy on Financial Development in Kenya. Please indicate your agreement or otherwise with the following statements using the following likert scale. **Key: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree**

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The country's growth in economy (GDP rate) affected institution development					
2	Increase in clients' income affected firm's development					

SECTION E: TRADE OPENNESS

This section aims at exploring the effect of Trade Openness on Financial Development in Kenya. Please indicate your agreement or otherwise with the following statements using the following likert scale. **Key: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree**

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Institution finances clients export of goods and services					
2	Institution finances clients imports of goods and services					
3	Financing of exports and imports affect institution's development					

SECTION E: GOVERNMENT POLICIES

This section aims at exploring the effect of Government Policies on Financial Development in Kenya. Please indicate your agreement or otherwise with the following statements using the following likert scale. **Key: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree**

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Increase in government borrowing (debt) affected firm's development					
2	Inflation management affected institution's development					

SECTION B: FINANCIAL DEVELOPMENT

This section aims at exploring the effect of Institutional Quality on Financial Development in Kenya. Please indicate your agreement or otherwise with the following statements using the following likert scale. **Key: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree**

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Loan portfolio to private sector increased					
2	Customers' deposits (liquid liabilities) increased					
3	Net interest margin increased					
4	Overall from sector's perspective has the ratio of commercial banks to central bank in terms of assets improved.					

THANK YOU FOR YOUR TIME AND PATIENCE

Appendix 3: Secondary Data Collection Sheet

Part 1: FINANCIAL DEVELOPMENT

Kindly indicate the following figure for financial institutions in Kenya in the years specified.

Development measurement	2010	2011	2012	2013	2014	2015
Loans and advances to customers						
Liquid liabilities						
Net Interest Income						
Commercial bank assets						
Central bank assets						

Part 1: DETERMINANTS OF FINANCIAL DEVELOPMENT

Kindly indicate the following figure for financial institutions in Kenya in the years specified.

a) **Economic Growth**

Economic measurement	2010	2011	2012	2013	2014	2015
Real Gross Domestic Product (GDP)						
Real GDP Rate						

b) **Financial Openness**

Financial Openness indicators	2010	2011	2012	2013	2014	2015
Foreign Financial Assets						
Foreign Financial Liabilities						
Total Financial Assets and Financial Liabilities						

c) **Institutional Quality**

Institutional Qualityindicators for measurement	2010	2011	2012	2013	2014	2015
Average Interest Earning Assets						
Operating Income						
Total Income						
Non Performing Loans						
Total Loans						
Equity (Capital and Reserves)						
Total Assets						

d)   **Trade Openness**

Trade Opennessindicators	2010	2011	2012	2013	2014	2015
Total Export						
Total Imports						
Total Exports and Imports						

Part 3: MODERATOR

Government policy

Government policyindicators	2010	2011	2012	2013	2014	2015
Inflation Rate (in %)						
Government debt						

Appendix 4: Regulatory structure of financial sector in Kenya

| Ministry of Finance | Ministry of Industrialisation |

DFIs

| Central Bank of Kenya | Retirement Benefits Authority | Insurance Regulatory Authority | Capital Markets Authority | Sacco Society Regulatory Authority |

Deposit Taking SACCOs

Commercial Banks

Non Finance Institutions

Mortgage Companies

Forex Bureaus

Building Companies

Micro Finance

Retirement Benefits Schemes

Pooled Schemes

NSSF

Administrators

Fund Managers

Custodians

Insurance Companies

Insurance Brokers

Insurance Agents

Assessors and Adjusters

Health Management Companies

Security Exchanges
Fund Managers
Central Depositing Systems
Custodians
Investment Banks
Collective Investment Schemes
Investment Advisors
Stock Brokers
Security Dealers
Listed Companies
Credit Rating Agencies
Venture Capital Firms

Source: Research Data

**Appendix 5: The Channels Financial Sector Influences Economic Growth**
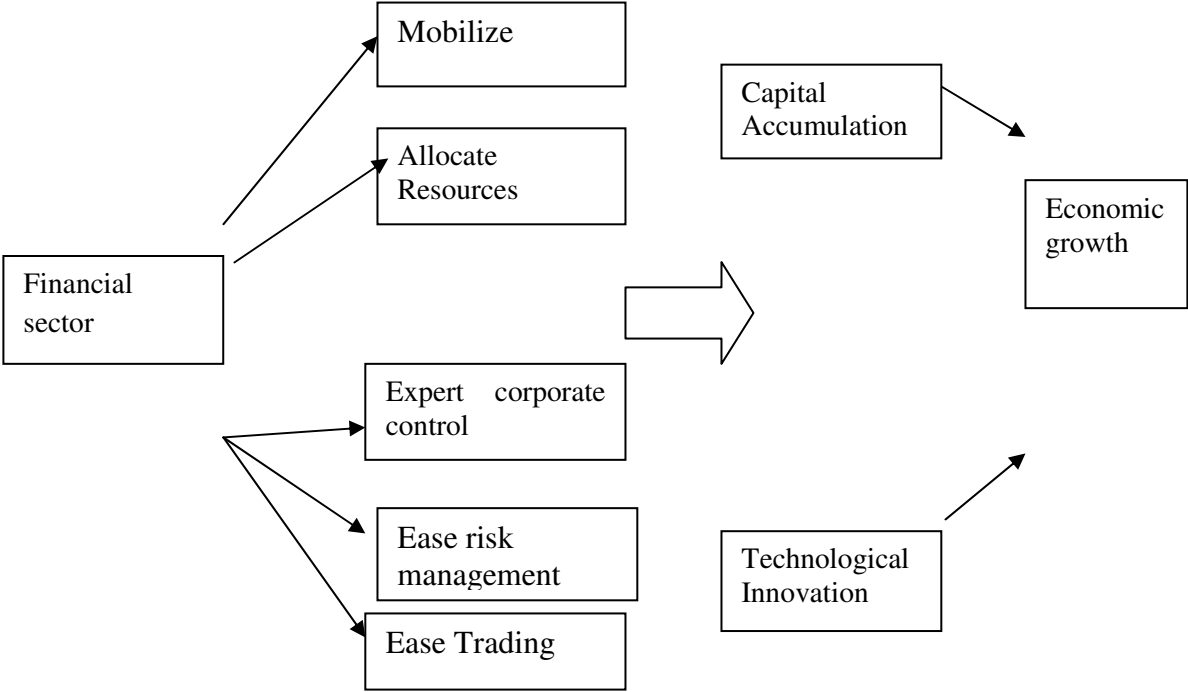
Source: Research Data

Appendix 6: Measures of Financial Development

	Financial Institutions	**Financial Markets**
Depth	• Private Sector Credit to GDP • Financial Institutions' asset to GDP • M2 to GDP • Deposits to GDP • Gross value added of the financial sector to GDP	• Stock market capitalization and outstanding domestic private debt securities to GDP • Private Debt securities to GDP • Public Debt Securities to GDP • International Debt Securities to GDP • Stock Market Capitalization to GDP • Stocks traded to GDP
Access	• Accounts per thousand adults(commercial banks) • Branches per 100,000 adults (commercial banks) • % of people with a bank account (from user survey) • % of firms with line of credit (all firms) • % of firms with line of credit (small firms)	• Percent of market capitalization outside of top 10 largest companies • Percent of value traded outside of top 10 traded companies • Government bond yields (3 month and 10 years) • Ratio of domestic to total debt securities • Ratio of private to total debt securities (domestic) • Ratio of new corporate bond issues to GDP
Efficiency	• Net interest margin • Lending-deposits spread • Non-interest income to total income • Overhead costs (% of total assets) • Profitability (return on assets, return on equity) • Boone indicator (or Herfindahl or H-statistics)	• Turnover ratio for stock market • Price synchronicity (co-movement) • Private information trading • Price impact • Liquidity/transaction costs • Quoted bid-ask spread for government bonds • Turnover of bonds (private, public) on securities exchange • Settlement efficiency
Stability	• Z-score • Capital adequacy ratios • Asset quality ratios • Liquidity ratios • Others (net foreign exchange position to capital etc.)	• Volatility (standard deviation / average) of stock price index, sovereign bond index • Skewness of the index (stock price, sovereign bond) • Vulnerability to earnings manipulation • Price/earnings ratio • Duration • Ratio of short-term to total bonds (domestic, int'l)

Source: World Bank GFD Report

Appendix 7: Commercial Banks and Mortgage Finance Institutions in Kenya
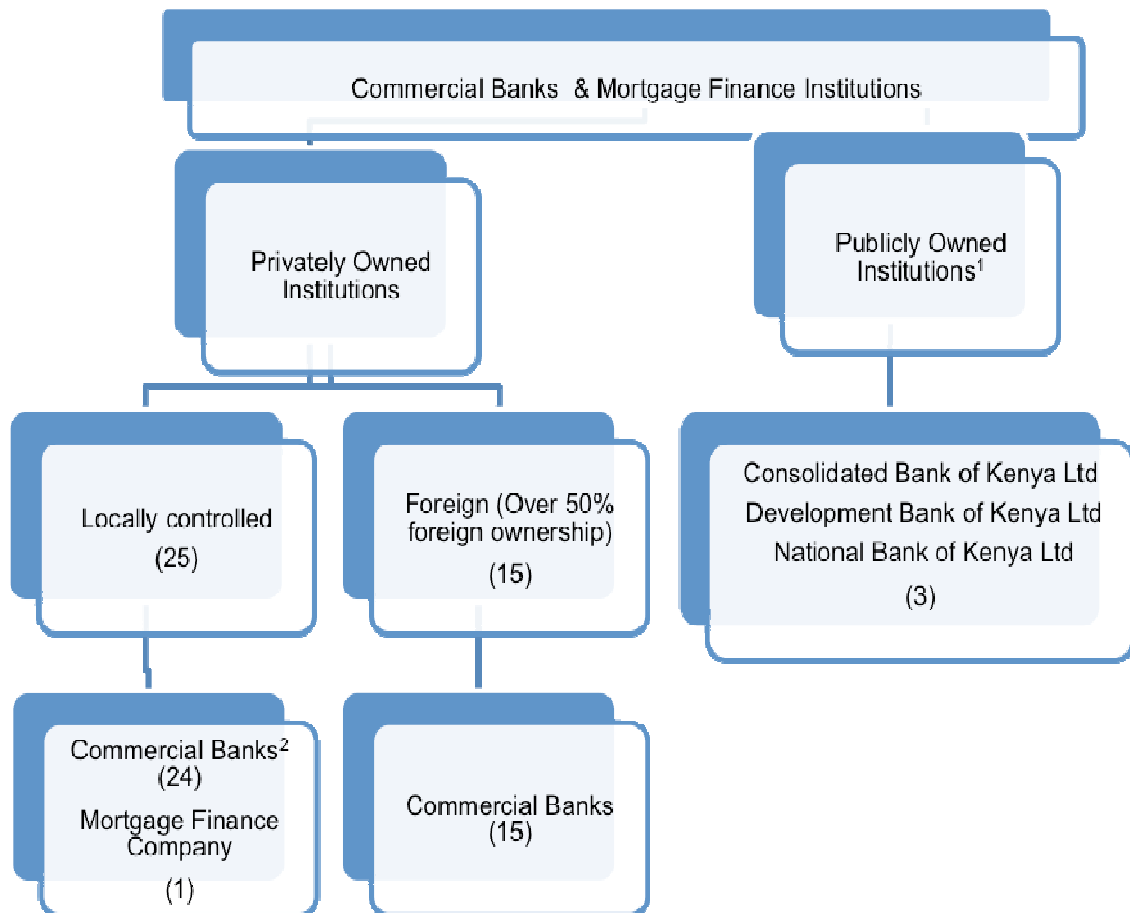
Source: Central Bank of Kenya

Appendix 8: List of Commercial Banks in Kenya

BANK CLASSIFICATION	DESCRIPTION	COMMERCIAL BANKS
Tier I	Comprises of banks with anasset base of more than Kes.40 billion.	1. Citibank 2. Equity Bank 3. Standard Chartered Bank 4. Commercial Bank of Africa 5. Barclays Bank of Kenya 6. NIC Bank 7. Kenya Commercial Bank 8. National Bank of Kenya 9. Diamond Trust Bank 10. Co-operative Bank of Kenya 11. CFC Stanbic Bank
Tier II	Comprises of banks with an asset base of less than Kes.40 billion but more than Kes. 10 billion	1. I&MBank 2. Bank of India 3. Bank of Baroda 4. Family Bank 5. Imperial Bank 6. Prime Bank 7. Bank of Africa 8. Chase Bank 9. FinaBank 10. EcoBank 11. HFCK
Tier III	Comprises of banks with an asset base of less than	1. Habib A.G. Zurich 2. Victoria Commercial Bank 3. Credit Bank

Kes.

10 billion.

4. Habib Bank (K) Ltd
5. Oriental Commercial Bank
6. K-RepBank
7. ABC Bank
8. Development Bank of Kenya
9. Middle East Bank
10. Equatorial Commercial Bank
11. Trans-National Bank
12. . Dubai Bank
13. Fidelity Commercial Bank
14. City Finance Bank
15. Paramount Universal Bank
16. Giro Commercial Bank
17. Consolidated Bank
18. Guardian Bank
19. Southern Credit Bank
20. Gulf African Bank
21. First Community Bank
22. Eco Bank
23. Chase Bank
24. United Bank of Africa

Source: CBK, 2012

Appendix 9: List of Insurance Companies in Kenya

1. Africa Merchant Assurance Company Ltd.

2. Chartis Kenya Insurance Kenya Ltd.

3. APA Insurance Company Ltd.

4. Apollo Life Insurance Company Ltd.

5. Blue Shield Insurance Company Ltd.

6. British American Insurance Co. (K) Ltd.

7. Cannon Assurance (K) Ltd.

8. Concord Insurance Company Ltd.

9. CFC Life Assurance Company (K) Ltd.

10. Co-operative Insurance Ltd.

11. Corporate Insurance Company Ltd.

12. Directline Assurance Company Ltd.

13. Fidelity Shield Insurance Company Ltd.

14. First Assurance Company Ltd.

15. Gateway Insurance Company Ltd.

16. Geminia Insurance Company Ltd.

17. General Accident Insurance Company Ltd.

18. Heritage A.I.I. Insurance Company Ltd.

19. Insurance Company of East Africa Ltd.

20. Intra Africa Assurance Company Ltd.

21. Invesco Assurance Company Ltd.

22. Jubilee Insurance Company Ltd.

23. Kenindia Assurance Company Ltd.

24. Kenya National Assurance (2001) Ltd.

25. Kenya Orient Insurance Company Ltd.

26. Kenyan Alliance Insurance Co. Ltd.

27. Lion of Kenya Insurance Company Ltd.

28. Madison Insurance Company Kenya Ltd.

29. Mayfair Insurance Company Ltd.

30. Mercantile Insurance Co. Ltd.

31. Metropolitan Life Insurance (K) Co. Ltd.

32. Occidental Insurance Company Ltd.

33. Old Mutual Insurance Company Ltd.

34. Pacis Insurance Company Ltd.

35. Pan Africa Life Assurance Ltd.

36. Phoenix of East Africa Insurance Co. Ltd.

37. Pioneer Assurance Company Ltd.

38. Real Insurance Company of East Africa.

39. Standard Assurance Kenya Ltd.

40. Tausi Insurance Company Ltd.

41. The Monarch Insurance Company Ltd.

42. Trident Insurance Company Ltd.

43. Trinity Life Assurance Company Ltd.

44. UAP Insurance Company Ltd.

45. Xplico Insurance Company Ltd.

Source: Insurance Regulatory Authority Annual Report 2009

Appendix 10: List of Deposit Taking Micro-Finance Institutions in Kenya

1. Choice Microfinance Bank Limited
2. Faulu Microfinance Bank Ltd
3. Kenya Women Microfinance Bank Ltd
4. SMEP Microfinance Bank Ltd
5. Remu Microfinance Bank Ltd
6. Rafiki Microfinance Bank Ltd
7. Uwezo Microfinance Bank Ltd
8. Century Microfinance Bank Ltd
9. Sumac Microfinance Bank Ltd
10. U&I Microfinance Bank Ltd
11. Daraja Microfinance Bank Ltd
12. Caritas Microfinance Bank Ltd
13. Maisha Microfinance Bank Limited

Source: Central Bank of Kenya(CBK) 2016 Report

Appendix 11: List of SACCO societies licensed to undertake Deposit-Taking SACCO business in Kenya for the financial year ending December 2016

1. 2NK SACCO SOCIETY LTD

2. AFYA SACCO SOCIETY LTD

3. AGRO-CHEM SACCO SOCIETY LTD

4. ALL CHURCHES SACCO SOCIETY LTD

5. ARDHI SACCO SOCIETY LTD

6. ASILI SACCO SOCIETY LTD

7. BANDARI SACCO SOCIETY LTD

8. BARAKA SACCO SOCIETY LTD

9. BARATON UNIVERSITY SACCO SOCIETY LTD

10. BIASHARA SACCO SOCIETY LTD

11. BINGWA SACCO SOCIETY LTD

12. BORESHA SACCO SOCIETY LTD

13. CAPITAL SACCO SOCIETY LTD

14. CENTENARY SACCO SOCIETY LTD

15. CHAI SACCO SOCIETY LTD

16. CHUNA SACCO SOCIETY LTD

17. COSMOPOLITAN SACCO SOCIETY LTD

18. COUNTY SACCO SOCIETY LTD

19. DAIMA SACCO SOCIETY LTD

20. DHABITI SACCO SOCIETY LTD

21. DIMKES SACCO SOCIETY LTD

22. DUMISHA SACCO SOCIETY LTD

23. EGERTON SACCO SOCIETY LTD

24. ELGON TEACHERS SACCO SOCIETY LTD

25. ELIMU SACCO SOCIETY LTD

26. ENEA SACCO SOCIETY LTD

27. FARIDI SACCO SOCIETY LTD

28. FARIJI SACCO SOCIETY LTD

29. FORTUNE SACCO SOCIETY LTD

30. FUNDILIMA SACCO SOCIETY LTD

31. GASTAMECO SACCO SOCIETY LTD

32. ELIMU SACCO SOCIETY LTD

33. ENEA SACCO SOCIETY LTD

34. FARIDI SACCO SOCIETY LTD

35. FARIJI SACCO SOCIETY LTD

36. FORTUNE SACCO SOCIETY LTD

37. FUNDILIMA SACCO SOCIETY LTD

38. GASTAMECO SACCO SOCIETY LTD

39. GITHUNGURI DAIRY & COMMUNITY SACCO SOCIETY LTD

40. GOODWAY SACCO SOCIETY LTD

41. GUSII MWALIMU SACCO SOCIETY LTD

42. HARAMBEE SACCO SOCIETY LTD

43. HAZINA SACCO SOCIETY LTD

44. IG SACCO SOCIETY LTD

45. ILKISONKO SACCO SOCIETY LTD

46. ELIMU SACCO SOCIETY LTD

47. ENEA SACCO SOCIETY LTD

48. FARIDI SACCO SOCIETY LTD

49. FARIJI SACCO SOCIETY LTD

50. FORTUNE SACCO SOCIETY LTD

51. FUNDILIMA SACCO SOCIETY LTD

52. GASTAMECO SACCO SOCIETY LTD

53. GITHUNGURI DAIRY & COMMUNITY SACCO SOCIETY LTD

54. GOODWAY SACCO SOCIETY LTD

55. GUSII MWALIMU SACCO SOCIETY LTD

56. HARAMBEE SACCO SOCIETY LTD

57. HAZINA SACCO SOCIETY LTD

58. IG SACCO SOCIETY LTD

59. ILKISONKO SACCO SOCIETY LTD

60. IMARIKA SACCO SOCIETY LTD

61. IMARISHA SACCO SOCIETY LTD

62. IMENTI SACCO SOCIETY LTD

63. JACARANDA SACCO SOCIETY LTD

64. JAMII SACCO SOCIETY LTD

65. JITEGEMEE SACCO SOCIETY LTD

66. JUMUIKA SACCO SOCIETY LTD

67. KAIMOSI SACCO SOCIETY LTD

68. KATHERA RURAL SACCO SOCIETY LTD

69. KENPIPE SACCO SOCIETY LTD

70. KENVERSITY SACCO SOCIETY LTD

71. ELIMU SACCO SOCIETY LTD

72. ENEA SACCO SOCIETY LTD

73. FARIDI SACCO SOCIETY LTD

74. FARIJI SACCO SOCIETY LTD

75. FORTUNE SACCO SOCIETY LTD

76. FUNDILIMA SACCO SOCIETY LTD

77. GASTAMECO SACCO SOCIETY LTD

78. GITHUNGURI DAIRY & COMMUNITY SACCO SOCIETY LTD

79. GOODWAY SACCO SOCIETY LTD

80. GUSII MWALIMU SACCO SOCIETY LTD

81. HARAMBEE SACCO SOCIETY LTD

82. HAZINA SACCO SOCIETY LTD

83. IG SACCO SOCIETY LTD

84. ILKISONKO SACCO SOCIETY LTD

85. IMARIKA SACCO SOCIETY LTD

86. IMARISHA SACCO SOCIETY LTD

87. IMENTI SACCO SOCIETY LTD

88. JACARANDA SACCO SOCIETY LTD

89.   JAMII SACCO SOCIETY LTD

90.   JITEGEMEE SACCO SOCIETY LTD

91.   JUMUIKA SACCO SOCIETY LTD

92.   KAIMOSI SACCO SOCIETY LTD

93.   KATHERA RURAL SACCO SOCIETY LTD

94.   KENPIPE SACCO SOCIETY LTD

95.   KENVERSITY SACCO SOCIETY LTD

96.   KENYA ACHIEVAS SACCO SOCIETY LTD

97.   KENYA BANKERS SACCO SOCIETY LTD

98.   KENYA CANNERS SACCO SOCIETY LTD

99.   KENYA HIGHLANDS SACCO SOCIETY LTD

100.   KENYA MIDLAND SACCO SOCIETY LTD

101.   KENYA POLICE SACCO SOCIETY LTD

102.   JOINAS SACCO SOCIETY LTD

103.   KIMBILIO DAIMA SACCO SOCIETY LTD

104.   KINGDOM SACCO SOCIETY LTD

105.   KIPSIGIS EDIS SACCO SOCIETY LTD

106. KITE SACCO SOCIETY LTD

107. KITUI TEACHERS SACCO SOCIETY LTD

108. KMFRI SACCO SOCIETY LTD

109. KOLENGE TEA SACCO SOCIETY LTD

110. KONOIN SACCO SOCIETY LTD

111. KORU SACCO SOCIETY LTD

112. KWALE TEACHERS SACCO SOCIETY LTD

113. KWETU SACCO SOCIETY LTD

114. K-UNITY SACCO SOCIETY LTD

115. LAMU TEACHERS SACCO SOCIETY LTD

116. LAINISHA SACCO SOCIETY LTD

117. LENGO SACCO SOCIETY LTD

118. MAFANIKIO SACCO SOCIETY LTD

119. MAGADI SACCO SOCIETY LTD

120. MAGEREZA SACCO SOCIETY LTD

121. MAISHA BORA SACCO SOCIETY LTD

122. MARSABIT TEACHERS SACCO SOCIETY LTD

123. MENTOR SACCO SOCIETY LTD

124. METROPOLITAN NATIONAL SACCO SOCIETY LTD

125. MILIKI SACCO SOCIETY LTD

126. MMH SACCO SOCIETY LTD

127. MOMBASA PORT SACCO SOCIETY LTD

128. MUDETE TEA GROWERS SACCO SOCIETY LTD

129. OLLIN SACCO SOCIETY LTD

130. MURATA SACCO SOCIETY LTD

131. MWALIMU NATIONAL SACCO SOCIETY LTD

132. MWIETHERI SACCO SOCIETY LTD

133. MWINGI MWALIMU SACCO SOCIETY LTD

134. MUKI SACCO SOCIETY LTD

135. MWITO SACCO SOCIETY LTD

136. NACICO SACCO SOCIETY LTD

137. NAFAKA SACCO SOCIETY LTD

138. NANDI FARMERS SACCO SOCIETY LTD

139. NANYUKI EQUATOR SACCO SOCIETY LTD

140. NAROK TEACHERS SACCO SOCIETY LTD

141. NASSEFU SACCO SOCIETY LTD

142. NATION SACCO SOCIETY LTD

143. NAWIRI SACCO SOCIETY LTD

144. NDEGE CHAI SACCO SOCIETY LTD

145. NDOSHA SACCO SOCIETY LTD

146. NG'ARISHA SACCO SOCIETY LTD

147. NOBLE SACCO SOCIETY LTD

148. NRS SACCO SOCIETY LTD

149. NUFAIKA SACCO SOCIETY LTD

150. NYAHURURU UMOJA SACCO SOCIETY LTD

151. NYALA VISION SACCO SOCIETY LTD

152. NYAMBENE ARIMI SACCO SOCIETY LTD

153. NYATI SACCO SOCIETY LTD

154. NEW FORTIES SACCO SOCIETY LTD

155. ORIENT SACCO SOCIETY LTD

156. PATNAS SACCO SOCIETY LTD

157. PRIME TIME SACCO

158. PUAN SACCO SOCIETY LTD

159. QWETU SACCO SOCIETY LTD

160.   RACHUONYO TEACHERS SACCO SOCIETY LTD

161.   SAFARICOM SACCO SOCIETY LTD

162.   SHERIA SACCO SOCIETY LTD

163.   SHIRIKA SACCO SOCIETY LTD

164.   SIMBA CHAI SACCO SOCIETY LTD

165.   SIRAJI SACCO SOCIETY LTD

166.   SKYLINE SACCO SOCIETY LTD

167.   SMART CHAMPIONS SACCO SOCIETY LTD

168.   SMART LIFE SACCO SOCIETY LTD

169.   SOLUTION SACCO SOCIETY LTD

170.   SOTICO SACCO SOCIETY LTD

171.   SOUTHERN STAR SACCO SOCIETY LTD

172.   SHOPPERS SACCO SOCIETY LTD

173.   STAKE KENYA SACCO SOCIETY LTD

174.   STIMA SACCO SOCIETY LTD

175.   SUKARI SACCO SOCIETY LTD

176.   SUBA TEACHERS SACCO SOCIETY LTD

177.   SUPA SACCO SOCIETY LTD

178. TAI SACCO SOCIETY LTD

179. TAIFA SACCO SOCIETY LTD

180. TARAJI SACCO SOCIETY LTD

181. TEMBO SACCO SOCIETY LTD

182. TENHOS SACCO SOCIETY LTD

183. THAMANI SACCO SOCIETY LTD

184. TRANSCOUNTIES SACCO SOCIETY LTD

185. TRANS NATION SACCO SOCIETY LTD

186. TIMES U SACCO SOCIETY LTD

187. TOWER SACCO SOCIETY LTD

188. TRANS- ELITE COUNTY SACCO SOCIETY LTD

189. UFANISI SACCO SOCIETY LTD

190. UCHONGAJI SACCO SOCIETY LTD

191. UKRISTO NA UFANISI WA ANGALICANA SACCO SOCIETY LTD

192. UKULIMA SACO SOCIETY LTD

193. UNAITAS SACCO SOCIETY LTD

194. UNI-COUNTY SACCO SOCIETY LTD

195. UNITED NATIONS SACCO SOCIETY LTD

196.   UNISON SACCO SOCIETY LTD

197.   UNIVERSAL TRADERS SACCO SOCIETY LTD

198.   VIHIGA COUNTY FARMERS SACCO SOCIETY LTD

199.   VISION POINT SACCO SOCIETY LTD

200.   VISION AFRICA SACCO SOCIETY LTD

201.   WAKENYA PAMOJA SACCO SOCIETY LTD

202.   WAKULIMA COMMERCIAL SACCO SOCIETY LTD

203.   WANAANGA SACCO SOCIETY LTD

204.   WANANCHI SACCO SOCIETY LTD

205.   WANANDEGE SACCO SOCIETY LTD

206.   WASHA SACCO SOCIETY LTD

207.   WAUMINI SACCO SOCIETY LTD

208.   WEVARSITY SACCO SOCIETY LTD

209.   WINAS SACCO SOCIETY LTD

210.   YETU SACCO SOCIETY LTD

Source: Sacco Societies Regulatory Authority (SASSRA)

Appendix 12: Secondary Raw Data

	2015 Ksh 'Millions'	2013 Ksh 'Millions'	2012 Ksh 'Millions'	2011 Ksh 'Millions'	2010 Ksh 'Millions'
Loans and advance to customers	2,091,361	1,532,387	1,296,452	1,152,011	876,357
Real Gross Domestic Product (GDP)	4,050,849	3,640,156	3,444,067	3,294,026	1,470,617
Liquidity Liability	2,952,065	2,271,216	1,968,153	1,738,101	1,412,306
Commercial banks Assets	3,423,835	2,703,394	2,330,335	2,020,817	1,678,112
Central Bank Assets	805,369	596,305	511,735	509,498	446,616
Net Interest income	146,198	127,598	105,896	93,274	70,241
Starting period Interest earning Asset	3,199,396	2,330,335	2,020,817	1,678,112	1,353,499
Ending period Interest earning Asset	3,492,643	2,703,394	2,330,335	2,020,815	1,678,112
Average Interest earning Asset	3,346,019.50	2,516,864.50	2,175,576.00	1,849,463.50	1,515,805.50
Operating Income	323,684	327,033	319,662	225,178	177,449
Total Income	314,704	362,177	356,305	256,335	211,745
Non-performing loans	191,200	101,700	77,300	**57,500**	**58,300**
Total loans	2,157,952	1,720,214	1,400,052	1,242,347	1,038,853
Equity	577,169	459,386	394,388	315,115	264,911
Total Assets	3,677,868	2,967,622	2,513,505	2,185,006	1,373,788
Exports	712,783	682,966	679,828	681,289	654,689
Imports	1,234,759	1,129,884	1,138,899	1,080,887	1,063,942
Government debt	2,829,100	1,894,100	1,623,400	1,633,400	1,491,400

Appendix 13: Secondary ManipulatedData

	2015	2014	2013	2012	2011	2010
PRIVO	0.516	0.492	0.421	0.376	0.35	0.596
LLY	0.729	0.705	0.624	0.571	0.528	0.96
CCB	0.81	0.786	0.819	0.82	0.799	0.79
NIM	0.044	0.049	0.051	0.049	0.05	0.046
MANEFF	1.029	0.993	0.903	0.897	0.878	0.838
NONPERLOANS	0.089	0.057	0.057	0.053	0.045	0.054
FINASTR	0.157	0.151	0.155	0.157	0.144	0.193
REALGDPRATE	0.053	0.053	0.057	0.046	0.061	0.084
TRADEOP	0.481	0.515	0.498	0.528	0.535	1.169
GOVERNDEBT	0.552	0.442	0.398	0.382	0.47	0.481
INFLATION	0.066	0.069	0.057	0.094	0.141	0.041

Appendix 14: Financial development and its determinants indicators (in Ksh 'Millions)