

**THE RELATIONSHIP BETWEEN FINANCIAL SECTOR DEVELOPMENT AND
ECONOMIC GROWTH IN KENYA**

BY

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DECLARATION

This is to declare that this research project is my original work that has not been presented in this University or any other Institution of higher learning for examination.

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This is to declare that this project has been submitted for examination with my approval as the University supervisor.

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DEDICATION

This research paper is dedicated to my loving and younger sister the late Jane Kavivi who was and still is and will always be my source of inspiration. May her soul Rest in Peace.

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ABSTRACT

Kenya's financial sector development has had a major role in its economic growth and this study provides a selected review of the literature and the relationship between Kenya's financial sector and its economic growth. Several studies have been done on the effect of the financial sector on economic growth and the general conclusion is that the financial sector plays a central role in economic development and growth of the Country however; there is a limitation of empirical and theoretical work supporting the concept in developing countries especially in Africa. The research objective is aimed at enhancing the understanding on the relationship of the financial sector development on economic growth in Kenya by studying four major components of the financial sector namely labor, capital stock accumulation, liquid liabilities and exports. This study was carried out using secondary data for a period of 24 years (1990-2013) and was obtained from CBK and the Kenya National Bureau of Statistics. The relationship has been expressed in form of descriptive and regression analysis and it showed that the economic growth can be achieved through a productive labour force, enhanced capital formation, increased exports and a reduction in the liquid liabilities. The study established that indeed the relationship between Kenya's financial sector development and its economic growth is strong and that the Kenyan economy will grow positively independent of the financial sector development. Therefore this study recommended that the Kenyan Government should identify other major components of the financial sector development apart from the four studied in this paper and put up in place well -structured policies that will support them and further develop the financial sector with the aspirations under the Kenya Vision 2030. The study is however limited in that the findings are only applicable in the Kenya context and this paper has not stated if the findings are similar to other developing African Countries and if the findings can be used beyond 2013. Lastly, the study recommended that further research should include behavioral financial issues other than historical data only as this will explain the variation in economic growth rate beyond historical data on the financial sector development variables. In addition, it recommended that further studies to include both developing and developed Countries in order to enhance the findings and provide more room for generalizability as this will provide more information and variable results.

TABLE OF CONTENTS

DECLARATION	II
DEDICATION	III
ACKNOWLEDGEMENT	IV
ABSTRACT	V
LIST OF ABBREVIATIONS	IX
CHAPTER ONE:INTRODUCTION.....	1
1.1Background of the study.....	1
1.1.1 Financial Sector Development.....	2
1.1.2 Economic Growth	3
1.1.3 Effect of financial sector development on economic growth.....	3
1.1.4 Financial sector development and economic growth in Kenya.....	4
1.2 Research problem	7
1.3 Research objective.....	8
1.4 Significance of the study.....	8
CHAPTER TWO: LITERATURE REVIEW	9
2.1 Introduction	9
2.2 Review of theories	9
2.2.1 The finance led growth hypothesis	9
2.2.2 The growth driven finance hypothesis	12
2.2.3 Bi-directional hypothesis	12
2.3 Determinants of economic growth in Kenya	13
2.3.1 Labor	14
2.3.2 Capital stock accumulation	14

2.3.3 Liquid liabilities	15
2.3.4 Exports	16
2.4 Review of Empirical Studies	17
2.4.1 Summary of literature review	19
CHAPTER THREE: RESEARCH METHODOLOGY	20
3.1 Introduction	20
3.2 Research design	20
3.3 Data collection.....	20
3.4 Data analysis.....	21
3.4.1 Analytical model	21
3.4.2 Test of significance.....	22
CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND INTERPRETATION.....	23
4.1 Introduction	23
4.2 Analysis of data and presentation of findings	23
4.2.1 Economic growth rate	23
4.2.2 Labor force	24
4.2.3 Capital stock accumulation	25
4.2.4 Liquid liabilities	27
4.2.5 Exports	28
4.2.6 Correlation analysis	29
4.2.7 Multiple linear regression	30
4.2.8 Anova.....	30
4.2.9 Regression analysis	31
4.3 Interpretation of the findings	33

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS	35
5.1 Summary	35
5.2 Conclusion	36
5.3 Policy recommendations	37
5.4 Limitations of the study	37
5.5 Suggestions of further research	38
REFERENCES	39
APPENDICES	44
Appendix 1: Introduction Letter	44

LIST OF ABBREVIATIONS

CBK	Central Bank of Kenya
DFIS	Development Financial Institutions
FDI	Financial Development Indicators
FSD	Financial Sector Development
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
ICT	Information and Communication Technology
IEA	Institute of Economic Affairs
IPAR	Institute of Policy Analysis and Research
IPP	Independent Power Producer
KPOSB	Kenya Post Office Savings Bank
MFIS	Microfinance Institutions
MPESA	A mobile money transfer by Safaricom.
ROSCA	Rotating Savings and Credit Association
SACCOS	Savings and Credit Cooperative Societies

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The financial sector of any given economy can be described as the institutions, instruments and markets that include the legal and regulatory framework that permit transactions to be made through the extension of credit and deposits. Financial sector development (FSD) can take part either a leading role in the economic growth or it may take a more passive role (derived demand) in response to expanding economics needs. The theoretical relationship between financial development and economic growth goes back to the study of Schumpeter (1911), who focuses on the services provided by financial intermediaries and argues that these are essential for innovation and development. Sutton and Jenkins (2007), stated that financial services offered by the financial sector are critical to the economic growth and development of a Country where banking, savings and investments, insurance and debt and equity financing help the citizens save money, guard themselves against uncertainty, enable start-up businesses, increase efficiency and compete in both the local and international markets while for the poor population, the financial services reduce vulnerability and help them manage assets available to generate income through use of strategies to expand the growth of the economy.

A number of theoretical and empirical analyses indicate that financial development leads to economic growth and the studies that support this view include those of Habibullah and End (2006), Galindo (2007), Ang (2008), Giuliano and Ruiz-Arranz (2009) and Nkoro and Uko (2013). These studies maintain that a well-developed financial sector creates strong incentives for investment and also fosters trade and business linkages and technological diffusion through mobilizing savings for productive investment which thus promotes economic growth. Sunde (2013), Odhiambo (2008), Wagabaca (2004), and Agbetsiafa (2003), believe that economic growth creates demand for financial services, and, therefore, economic growth precedes financial development. Other strand holds that financial advancement plays a minimal role if any, on

economic growth, Lucas (1988), and Adusei (2012). However, in the recent past, there has been empirical evidence that there exist a bi-directional relationship between economic growth and financial development Fowowe (2010), Rachdi and Mbarek (2011). A general proposition states that the development of the financial sector is expected to have a positive impact on economic growth.

1.1.1 Financial Sector Development

The financial sector development comprises majorly of commercial banks which are the fulcrum of a financial system and non-bank financial institutions. Levine (2005), suggests that financial institutions and markets can foster economic growth through several channels by easing the exchange of goods and services through the provision of payment services, mobilising and pooling savings from a large number of investors, acquiring and processing information about enterprises and possible investment projects, thus allocating savings to their most productive use, monitoring investment and carrying out corporate governance, and diversifying, increasing liquidity and reducing intertemporal risk. Each of these functions has an impact on the saving and investment decisions and hence economic growth. A good measurement of financial development is crucial to assess the development of the financial sector and understand the impact of financial development on economic growth and poverty reduction.

In practice, however, it 's hard to measure financial development as it is a vast concept and has several dimensions. Empirical work done is based on standard quantitative indicators available for a long time series for a broad range of countries. For instance, the ratio of financial institutions' assets to GDP, ratio of liquid liabilities to GDP, and the ratio of deposits to GDP. The key to financial sector development in lagging economies is the reduction of fragmentation in financial markets so that they gradually set more accurate (and, therefore, consistent) prices that reflect resource scarcity. McKinnon and Shaw (1973), consider that the establishment of positive real interest rates is a first step in this direction, providing a base from which the financial system can be developed to produce more refined prices. However, a complete set of financial sector development indicators should cover credit intermediation, liquidity management, and risk management which is characteristics of the financial system.

1.1.2 Economic Growth

Economic growth can be referred to as the increase in the output that an economy produces over a period of time, with the minimum being two consecutive quarters and it is measured conventionally as the percent rate of increase in real GDP while economic development is a measure of the welfare of humans in a society. Haller (2012), agrees that there is no unanimously accepted definition of economic growth, but most scholars think of the economic growth as an increase in per capita income of a Country. GDP growth involves the analysis of the growth process in quantitative terms, focusing on the functional relationships among the endogenous variables. Economic growth can further be described as the process of increasing the size of an economy through macroeconomic indicators especially GDP per capita. The rise in the GDP per capita is an ascendant manner though not necessarily in a linear fashion. Economic growth can be positive, zero or negative where positive economic growth occurs when the average annual rates of the macroeconomic indicators are higher than the average rates of population growth, zero economic growth is achieved when the average annual rates of growth of the macroeconomic indicators equal the population growth rate and negative economic growth is realized when the pace of the population growth is higher than the rates of growth of the macroeconomic indicators, Pasinetti (1960).

Patrick (1966), and Richard (2003), find that the most successful economies tend to be ones that developed sophisticated financial systems at an early stage. Economic growth in a Country can be measured using economic performance in terms of the value of National Income, National expenditure, and National output. Robinson (1952), Gurley & Shaw (1955), Goldsmith (1969), Patrick (1966), concluded that the growth of financial sector is in response to the demand created by economic development of a Country therefore suggesting that it is economic growth that causes financial development. Thus, as the demand for the financial services increase, an inducement for the growth of the financial sector results from the economy growth. This means that the factors that determine the economic growth are not within the confines of the financial sector.

1.1.3 Effect of Financial Sector Development on Economic Growth

Financial systems in advanced countries can efficiently facilitate the mobilization of capital between surplus and deficit agents, which eventually leads to economic growth. Developing Countries, on the other hand, used to have less developed and less efficient financial systems with lower levels of banking intermediation. However, from 1980s, developing countries have improved the efficiency of their financial markets but the relationship between financial development and economic growth in developing countries is inconclusive, Kar (2011). It has been suggested that a well-functioning financial sector can spur economic growth, Schumpeter (1912), and Levine (1997). The financial sector provides positive externalities in several fields which indirectly decrease the poverty level and increase the standard of living. Merton (1991), argues that a financial system provides payments system, a mechanism for pooling funds, a way to transfer resources across time and space, a way to manage uncertainty and control risk, a price information to allow the economy to implement a decentralised allocation of resources, a way to deal with the asymmetric information problem that arises when one party to a financial transaction has information that the other party does not.

Financial markets play a vital part in the growth of the real economy and specifically the role of the banking sector as an accelerator of economic growth due to its role as a financier of productive investments. Levine and Beck (2000), concluded that a well-developed financial sector may increase investments, which again can promote economic growth. Associated with every investment are the costs of completing a transaction. A developed financial sector may decrease transactions costs, as well as credit constraints, conditions which may retard the economic growth in a country. A financial sector that is not functioning well can by its malfunctioning result in little economic activity and growth. The lack of well-functioning financial markets may constrain credit demanded to investments that spur economic growth. This potential 'loan rationing' can have a negative effect as allocated credit is substantial for technological progress and capital accumulation, namely the channels to stimulate economic growth. In conclusion, most studies have concluded that the development of a financial system enhances efficiency in the allocation of resources, thus stimulating the growth process.

1.1.4 Financial Sector Development and Economic Growth in Kenya

According to Kenya's Vision 2030, the financial sector will play a critical role in achieving the aim of the Vision by providing better intermediation between the surplus and deficit sectors of the economy, Republic of Kenya, (2007). There is the need for empirical evidence on the existence of a long-run relationship between financial development and economic growth whether financial development causes economic growth or vice versa. Kenya's financial sector is divided into two: the formal and informal. The formal sub-sector comprises of the banking, insurance, capital markets, and pension funds, Savings and Credit Cooperative Societies (SACCOs), Development Finance Institutions, Republic of Kenya (2007), CBK (2011). This sector also includes the financial infrastructure that facilitates trading, payments and settlement systems. On the other hand, the informal financial sub-sector is a sector that is unregulated but offers financial services. The institutions and group that are included here are the Rotating Savings and Credit Associations (ROSCAs) and Accumulating Savings and Credit Association (ASCAs), merry go rounds popularly known as chamas in Kenya, shopkeepers and moneylenders, Central Bank of Kenya (2011). The Kenyan financial sector is dominated by the commercial banks whereby the year 2014, the banking sector in Kenya comprised of the Central Bank of Kenya (the regulatory authority), 43 banking institutions, 7 representative offices of foreign banks, 6 deposit-taking microfinance institution, 123 forex bureaus and 2 credit reference bureaus but majority of the banks are locally owned, and only 13 are foreign owned.

Several developments have taken place in the financial sector with the setting up of the guidelines on the appointment and operations of the Third Party Agents by Deposit Taking Microfinance institutions, mobile banking has also increased over time. The total number of commercial bank agents increased by around 31 percent in 2014 from a rise of 71 percent in the year 2010. Commercial bank agents receive small cash deposits and withdrawals of bank customers. Thus, the total numbers of agents have increased with time, and the same upward trend is observed in the number of customers who reached 19.2 million by 2011. Total transactions value has increased tremendously between 2007 and 2014.

The Kenya's financial sector is by far the largest, sound and the most developed in East Africa but in comparison with other middle-income Countries, Kenya's financial sector still lags behind making it not fully exploit its capacity by allocating economic resources in the Country. The

Kenyan financial sector comprises of the Money market and the Capital Market. The money market is the market for short-term funds, namely, treasury bills, commercial paper, and certificates of deposit. The Capital Market is the market for long-term funds like shares and loans. The capital market in Kenya comprises the stock market, bonds market, financial development financial institutions, pension funds and insurance funds. The stock market has been in existence since the 1920s, and currently has 61 firms and still growing. The bonds market is in its infancy stage. Large populations of the poor citizens live and work in the informal sector where they operate their own micro-enterprises without legal the recognition needed to acquire credit facilities and contracts which contribute to insufficient market information for the financial institutions. This has indeed led to the mushrooming of micro-finance loans and small and medium enterprise financing which are larger but obviously smaller to large commercial financial institutions. However, the challenge is on how best the large commercial banks can have tailor-made operations scale and match the global demand of micro-financing, Sutton and Beth Jenkins (2007). There is a general tendency for access to services from formal and semi formal providers (banks SACCOS, MFIS) to decline as one goes from urban to rural, from high income to low revenue and from better educated to not educate. A well-functioning financial system is critical to accelerating economic growth since it will ensure macroeconomic stability as well as promote private sector development which will in turn generate employment and reduce poverty, Levine (1997). Therefore, a sound financial sector will encourage foreign direct investments, safeguard the economy from external shocks as well as propel Kenya to become a leading financial center in Eastern and Southern Africa.

According to IEA and IPAR (2000), financial sector development in Kenya has shown an upward trend, the growth of real GDP has taken a different path. The GDP growth rate has been very erratic with the lowest, about negative 0.8 percent, recorded in 1992. During the early years of independence, Kenya achieved commendable economic growth compared to other SSA countries. Between 1975 and 1984, average annual percentage growth in GDP was about 4.7 percent. During the period 1985 to 1989, average GDP growth increased dramatically to about 5.9 percent. However, in 1991 the percentage change in GDP growth declined to about 1.4 percent. In 1992, Kenya recorded a historic low GDP growth rate of about negative 0.8 percent (the lowest since independence). However, between 1993 and 1995 GDP growth increased considerably. The GDP growth rate increased from about negative 0.8 percent in 1992 to 0.4

percent in 1993, before further increasing to about 2.6 percent in 1994. By 1995, the GDP growth rate had reached 4.4 percent. But this high growth rate did not last long. The GDP growth rate declined again systematically from about 4.4 percent in 1995 to about 2.1 percent in 1997 and 1.6 percent in 1998. In 1999, the GDP growth rate was about 1.3 percent and by 2000 a negative rate of about negative 0.2 percent was recorded. Currently, real GDP growth in Kenya is estimated at about 5.5 per cent.

1.2 Research problem

Levine (1997), in describing the conceptual links between the functioning of the financial system and economic growth, highlighted areas needing additional research and he stated that there was no sufficient and rigorous understanding of the emergence, development, and economic implications of different financial structures. In addition, we do not have adequate theories of why different financial structures emerge or why financial structures change. Furthermore, economists need to develop an analytical basis for making comparisons of financial structures; we need models that elucidate the conditions, if any, under which different financial structures are better at mitigating information and transaction costs. Secondly, an area needing additional research involves the influence of the level and growth rate of the economy on the financial system. Some models assume that there is a fixed cost to joining financial intermediaries. Economic growth then reduces the importance of this fixed cost and more people participate. Thus, economic growth provides the means for the formation of growth promoting financial intermediaries while the formation of financial intermediaries accelerates growth by enhancing the allocation of capital. In this way, financial and economic development are jointly determined, Greenwood and Jovanovic (1990). Building on Hugh Patrick (1966), Greenwood and Jovanovic (1990), and Greenwood and Smith (1997), future research may improve our understanding of the impact of growth on financial systems.

There have been several studies on financial sector development and economic growth. However, most of them consider one component of the financial sector in relation to economic growth. Chami, Fullenkamp, and Sharma (2009), conducted studies on capital market and economic growth, banking credit and economic growth, foreign direct investment and economic growth. The use of one component of the financial sector like capital market or foreign direct

investment as a representative of the entire financial sector is inadequate and inappropriate especially for a developing Country like Kenya. For adequate analysis to be made for informed judgment to be reached there is the need for the collaboration of at least three components of the financial sector. To fill this gap therefore, this study considered four components of the financial sector comprise labor, level of investment, liquid liabilities and exports the financial sector together in relation to economic growth. This will therefore be seeking to address deeply the strong positive link between financial development and economic growth in Kenya being one of the fastest African Developing Countries.

1.3 Research Objective

To determine the relationship between the financial sector development and economic growth in Kenya

1.4 Significance of the Study

The objective of the study is to analyze the long-run causal relationship between financial sector development and sustainable economic development and also to determine the direction of causality between financial sector indicators and sustainable economic development. The findings from this study will be essential in assisting various groups and the Kenyan Government in fast tracking the achievement of various economic development goals and policy makers in formulating macroeconomic and fiscal policies necessary for improving stability in the financial sector in line with the vision 2030 which includes stimulation of a double-digit economic growth rate. Policy designers need to have precise information that can help them come up with policies that can stimulate economic growth through the financial markets. The policies can produce the greatest results if it is known which aspects of the financial market should be tackled in order to generate economic growth and, therefore, development. Furthermore, the research will also be an addition to the knowledge pool of understanding the effect of the financial sector development to economic growth.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The elaboration on the relationship between financial development and economic growth is a comprehensive and not exhaustible hence this chapter will broadly look at what others have said and/or done in the field of financial sector development and economic growth and the shortcomings facing the financial sector.

2.2 Review of Theories

Several theories exist that seek to explain the relationship between financial sector development and economic growth. However, the three key ones, especially for developing countries like Kenya, are discussed below.

2.2.1 The finance led growth hypothesis

From some empirical studies, the studies argue that financial development drive the economy of a Country which leads to economic growth hence the finance-led growth hypothesis. The finance led growth hypothesis postulates that financial development plays a major role in economic growth and contends that financial development has a stimulating impact on the economy. Some of the channels through which financial development promotes growth in the economy include efficient allocation of capital, mobilization of savings through attractive instruments and lowering of the cost of information gathering and presenting among others. Essentially, an efficient financial sector is seen as a purveyor of limited credit resources from the surplus units to the deficits. Through this process, the financial sector helps to promote an efficient allocation of resources.

However, Patrick (1966), argues that in the long run the relationship between financial development and economic growth changes since financial development pumps in real innovation of investment before sustained modern economic growth gets underway and as such growth is realised, the supply leading gradually becomes less important as the demand becomes dominant. It is important to note that financial market liberalization reduces the role of the

Government in the sector hence the forces of demand determine the pace at which the financial sector moves. Odhiambo (2004), argues that the causal relationship between financial development and economic growth can be classified conveniently into three groups where the first group argues that it is development of the financial sector which controls the real sector of the economy (supply – leading response). The second group holds to the belief that it is economic growth that drives the development of the financial sector (demand – following response). Lastly, the third group contends that both financial development and economic growth cause one another (bi-directional causal relationship). The empirical relationship between financial development by and large leads to improved economic growth however it varies from across Countries and over time, De Gregorio and Guidotti (1995). In the Developing Countries, the causal relationship runs from financial development and economic growth while in the developed countries it runs from economic growth to financial development, Jung (1986).

Levine (1997), states that by providing correct data regarding production technologies and exerting corporate control, financial sector development can enhance resource allocation and accelerate growth similarly facilitating risk management, improving the liquidity of assets and reducing trading costs. The financial development also encourages investments in high-return activities. He further identifies five primary channels through which an efficient financial sector influences economic growth which illustrates how financial arrangements provide five functions that affect savings and allocation decisions, and how these functions then influence economic growth through two channels, namely capital accumulation and capital productivity. According to King and Levine (1993), financial sector distortions reduce the rate of economic growth by reducing the rate of innovation hence the conclusion that financial systems are necessary for productivity, growth, and economic development. The role of the financial sector as a leading contributor to growth has a focus of recent much debate where there are some who question the evidence for the positive causation of the financial sector development on growth. There has an emphasis on the potential for bi-directionality and the variation due to specific conditions by county and the various due to specific conditions by country and period, Lawrence (2006). Historically, Bagehot (1873) and Schumpeter (1912) highlighted the role of the financial sector in economic development. Levine and Zervos (1998), and King and Levine (1993) analyzed the contribution of financial sector development on output growth in cross-countries analysis. Stock

market liquidity and banking sector development indicators showed positive correlation with economic growth in both short runs and long term scenario in most countries of the study.

Arestis (2001), Shan (2002), and Abu-Bader (2005) explored the link between financial sector development and economic growth bank-based model contributed more to output growth in long run than the stock market-based model. Causality results showed finance led growth. Loayza and Ranciere (2002), Andries (2003), Seetanah (2007), Jalil and Ma (2008) and Khan (2005) used autoregressive distributed lag (ARDL) technique was used to estimate the short run and long-run effects of financial sector development on economic growth. A positive long-run effect was found of financial intermediation on output growth. Ang (2008), attempted to analyze the role of financial sector development and liberalization of the income inequalities in India. Khan and Qayyum (2004) and Shahbaz (2008) investigated the impact of trade and financial development on economic growth in Pakistan. With the Bound testing approach of co integration; it was found that financial sector indicators and the real interest rate had a positive and significant effect on economic growth. Previous studies used GDP, real GDP per capita or GNP as the proxies for economic growth, but these studies ignored the debt burden and exports.

Schumpeter (1934), Gurley and Shaw (1955), and Goldsmith (1969), holds that a well-developed financial system stimulates growth by channeling savings to the most productive investment projects. Conversely, financial repression results in a poorly functioning financial system that in turn depresses growth: this can happen as a result of excessive government interference in the financial system with measures such as interest rate ceilings, higher bank reserve requirements, and direct credit programs to preferential sectors. The recent endogenous growth literature highlights the positive role of the financial sector in driving economic growth, particularly through its role in mobilizing savings, allocating resources to the most productive investments, reducing information, transaction and monitoring costs, diversifying risks and facilitating the exchange of goods and services. This results in a more efficient allocation of resources, a more rapid accumulation of physical and human capital, and faster technological progress, Greenwood and Jovanovic (1990), Bencivenga and Smith (1991), Roubini and Sala-i-Martin (1992), King and Levine (1993), Greenwood and Smith (1997), Levine (1997), Levine (2005) and Odhiambo (2008), using time series of the period 1968–2002 and a dynamic causality model investigated causality between financial development and economic growth in Kenya. The

study used broad money (M2), currency ratio (CC/M1) and credit to the private sector as proxies for financial development. The results suggested that causality between financial development and economic growth depends on the proxy used for financial development in Kenya and that causality on the balance runs from economic growth to financial development. This study supports the demand following hypothesis on average.

2.2.2 The growth driven finance hypothesis

In contrast to the finance-led growth hypothesis, Robinson (1952), argued that the relationship should start from growth to finance where a high economic growth rate leads to a high demand and a well-developed financial sector. However, according to Miles (2005), financial development follows economic development. He further states that economic growth causes financial institutions to change and develop both financial and credit markets. Kuznets (1955), equally states that the financial markets begin to grow as the economy approaches the intermediate stage of growth generates demand for some categories of financial instruments arrangement and that financial market effectively respond to these demands and change. Agbetsiafa (2003), realized a unidirectional causality from growth to finance quite dominant in Ivory Coast and Kenya when examining the relationship in emerging economies in Sub-Saharan Africa.

2.2.3 Bi-directional Hypothesis

Salvanathan (2008), explores the causal link between FDI, domestic investment, and economic growth in China between 1988 and 2003, using Multivariate and ECM. Their results indicated that there was bi-directional causality between domestic investment and economic growth while there was single directional causality from FDI to domestic investment and economic growth. They found a higher level of complementary between FDI and domestic resources. Other studies argue that there is a two-way relationship between financial sector development and economic growth where the financial market develops as a result of economic growth that in turn feeds back as a stimulant to real growth. This theory can also be referred to as the feedback hypothesis. Schumpeter (1912), an economy with a well-endowed financial system could promote high economic growth through both technological innovation and product and service development. This further leads to the banking institutions to adapt to the technological innovations and

product development which stimulate a high economic performance e.g., Safaricom, which has catalyzed the mobile banking. The conclusion drawn from Al Yousif (2002), after examining 30 developing countries is that financial development and economic growth are mutually causal where the causality is bi-directional. This was further supported by Wood (1993) and Chuah and Thai (2004), but the study did not support Patrick (1966). In Botswana (1972 – 1995) for example, there existed a bi-directional causality between financial development and per capita income Akinboade (1998), and hence economic growth and financial development complement one another.

Jung (1986), has investigated the causality problem, and he finds that financial sector development have a bi-directional relationship. In his study of 56 countries he finds that the causal direction running from financial development to economic growth is more frequently observed than the reverse when he runs regressions between GDP per capita and the proxies of financial development. Interestingly, Jung finds that less developed countries are characterized by a causal direction running from financial to economic development while a reverse causal direction often characterizes developed countries. Demetriades and Hussain (1996), however, find from their causality tests that the results were more country specific and do not therefore fully accept the view that ‘finance leads growth’ or that ‘finance follows growth’. Note that they include only 16 countries, and they use two quite similar variables, bank claims, and bank liabilities, as financial indicators.

2.3 Determinants of economic growth in Kenya

Understanding the growth process is central to development economics; while theory is useful to provide guidance for identifying, analysing and interpreting the determinants of growth, how the process has worked or failed in Countries is ultimately an empirical issue. Most of the empirical literature is based on cross-Country growth regressions, which are at least useful in identifying those factors that most consistently appear to be important determinants (and theory should help us understand how and why). However, cross-Country studies only highlight what appears to be important in general or on average; Country analytical studies are needed to understand the process, and which factors were most important, in individual Countries. In this study, we shall focus on labor, capital accumulation, liquid liabilities and exports as some of the main determinants of economic growth in Kenya as a developing Country.

2.3.1 Labor

A high population growth is a growing concern throughout the world and a challenge to Countries' economies. Economists are torn between three theories; one that state's that population growth helps a Nation's economy by stimulating economic growth and development and another that bases its theory on Robert Malthus' findings. Malthus (1798) stated that population increase is detrimental to a nation's economy due to a variety of problems caused by the growth. For example, overpopulation and population growth place a tremendous amount of Pressure on resources, which result in a chain reaction of problems as the nation grows. The third school of thought is that population growth does have any impact on economic growth. 71.8 percent of the total Kenyan population is in the labor force which includes all people, age 15 and older who supply labor for the production of goods and services at a specified time. It includes both the employed and unemployed. The economically active population is projected to increase from 17,825 (80.9 percent) in 2008 to 24,821 (81percent) in 2020. The unemployment rate was 40 percent in 2001. Many others suffer underemployment or poverty-level employment.69.8 percent of Kenyans who work up to 27 hours per week live in poverty. 65.6 percent of those who work between 28 to 39 hours live in poverty. For those who work more than 40 hours per week, the figure declines to 46.1 percent. The self-employed are largely found in the agricultural sector, including 6 million Kenyans or 50 percent of total labor force. Although the self-employed form a significant proportion of the informal sector, they are not accounted for in official statistics as there is lack of income records.

2.3.2 Capital stock accumulation

Capital accumulation refers ordinarily to real investment in tangible means of production, such as acquisitions, research and development that can increase the capital flow or investment in financial assets represented on paper, yielding profit, interest, rent, royalties, fees or capital gains or investment in non-productive physical assets such as residential real estate or works of art that appreciate in value. It can be measured as the monetary value of investments, the amount of income that is reinvested, or as the change in the value of assets owned (the increase in the value of the capital stock). In general, the public's choice as to the division of income between consumption and net investment is the fundamental factor determining how fast income will grow from period to period. If aggregate consumption is less than aggregate income, and net

investment is, therefore, positive, the capital stock and income will grow through time. If aggregate consumption is greater than aggregate income, the capital stock and the income generated by it will decline as time passes. Most industrial countries have experienced substantial growth in output and income over the past 150 years, and this could not have occurred without growth of the capital stock over that period. And the growth of the capital stock could not have occurred unless consumption was consistently less than income. Kenya certainly lags far behind in terms of FDI contribution to GFCF compared with other developing countries. Part of the reason is the slow progress in opening up the infrastructure sector to private investment. Some of the major contributions of FDI to capital and investment have nevertheless occurred in the telecommunications sector, where the auction of two mobile phone licenses in 1999 and 2000 led to the rapid build-up of infrastructure, in part financed by foreign investors. The auctions and competition introduced in mobile telephony generated a sharp increase in the availability and quality of telecommunication services, with the number of users reaching 3 million in 2003 (out of a population of 32 million people) and mobile phone subscriptions outnumbering fixed-line connections by 6 to 1. The opening of the power generation sector to private investment in the late 1990s also allowed the rapid increase in the power supply that was needed at the time through the involvement of foreign IPPs. The four IPPs currently account for about 20 percent of total capacity. The pressing need to increase capacity in the late 1990s and the uncertain economic and regulatory environment at the time, however, forced the Government to accept expensive bids from private investors. So far, the private sector has not been allowed to play a significant role in other infrastructure sectors such as ports, airports, roads, railways, water or electricity distribution. The Government nevertheless plans greater private sector involvement in these sectors in the future, as part of its renewed privatization drive.

2.3.3 Liquid liabilities

Liquid liabilities are also known as M3. They are the sum of currency and deposits in the central bank (M0), plus transferable deposits and electronic currency (M1), plus time and savings deposits, foreign currency transferable deposits, certificates of deposit, and securities repurchase agreements (M2), plus travelers checks, foreign currency time deposits, commercial paper, and shares of mutual funds or market funds held by residents. This indicator measures the overall size of the formal financial intermediary sector, and has been found to be very strongly

associated with both the level and rate of change of real per capita GDP, King and Levine (1993).

2.3.4 Exports

Exports of goods and services represent the value of all goods and other market services provided to the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments. The Economic Recovery Strategy (ERS) 2003-2007 identifies trade and in a particular export expansion, as one of the activities that will assist in economic recovery and growth. For this reason, the National Export Strategy (NES) 2003-2007 aimed at stimulating and expanding export trade, was approved by the Cabinet in 2004. The NES identifies trade facilitation as one of the cross-cutting issues that require attention to stimulate the growth of exports. It emphasizes the need to ensure that government regulations and processes on the movement of goods are efficient, particularly at the borders, so that the business community can carry out trade transactions at the least cost and time. International trade plays a key role in Kenya's economic and social development. Kenya is renowned for the export of quality products among them tea, coffee, cut flowers, nuts vegetables, fruits, meat and leather products. It is critical that as these products enter the world markets, they are branded as Kenya Products.

Exports in Kenya increased to Kshs 41,163 million January of 2015 from Kshs 41,157 million in December of 2014. Exports in Kenya averaged Kshs 25,216.59 million from 1998 until 2015, reaching an all-time high of Kshs 48,995 million in April of 2014 and a record low of Kshs 9,007 million in January of 1999. Agricultural products are central to Kenya's export industry with horticultural and tea being the most important. Other export items include textiles, coffee, tobacco, iron and steel products, petroleum products, cement. Kenya main exports partners are UK, Netherlands, Uganda, Tanzania, United States and Pakistan.

Review of empirical studies

The role of the financial sector as leading contributor to economic growth has been a deeper look at the recent much debate. There are some who question the evidence for the positive causation of financial sector development (FSD) on growth and emphasize the potential for bi-directionality and the variation due to specific conditions by country and time period Lawrence (2006). Caporale and Sova (2009), conducted a study whose aim was to establish the relationship between financial development and economic growth in ten Countries that were new European Union members. The study reviewed the main characteristics of the banking and financial sector in the ten new European Union members followed 12 by an examination of the relationship between their financial development and economic growth. An analysis was done by estimating a dynamic panel model over the period 1994-2007. The study found that the stock and credit markets were still underdeveloped in those economies and that their contribution to economic growth was limited owing to a lack of financial depth. By contrast, the more efficient banking sector was found to effect accelerated growth. The Granger causality test indicated that causality runs from financial development to economic growth, but not in the opposite direction. This study, therefore, showed there was a positive relationship between financial depth in the credit sector and economic growth. Moshabesha (2010), a study to find out the relationship between financial deepening and growth in Southern African Customs Union (SACU) countries namely Botswana, Lesotho, RSA, and Swaziland, for the period 1976 to 2008. In the study the independent variables were two measures of financial deepening: the ratio of credit to the private sector provided by commercial banks and the ratio of liquid liabilities of commercial banks to GDP while economic growth, proxied by growth in manufacturing, was the dependent variable. A balanced panel of the four SACU countries for the period 1976 to 2008 was estimated using Zellner's Seemingly Unrelated Regression Estimation (SURE) method. The results of the relationship between manufacturing growth and Financial Development were feeble and insignificant across the four countries.

Honohans (2007), finds that the FSD impact on poverty is via measures of financial depth rather than access levels, with access not strongly correlated with poverty rates or national income but he also finds that access levels are quite well associated with inequality suggesting that better access lowers inequality. However, according to Demirguc-kunt and Levine (2007), FSD

disproportionately benefits the poor through faster than the average growth of GDP per capita. Their evidence suggests that 60 percent of the impact on the poorest 20 percent they indicate, however, this does not suggest how to achieve better poverty-reducing financial development. World Bank (2008), providing financial services to the poor specifically through microfinance will solve the need to provide finance for all and a wider focus on the unbanked and those on low incomes. An increased acceptance of microfinance has in turn laid the ground for increasing focus on micro – finance or small and medium enterprise finance loans and investments larger than micro-loans (World Bank). In Kenya, the informal sector contributed to 75 percent of job created in 2010 (KBS) and microfinance would lead to substantial growth in the informal sector which will lead to economic growth, Ndungu (2008).

The financial sector development affects per capita GDP mainly through efficient resources allocation rather than its effects on capital accumulation, Eatazaz Ahmad and Malik (2009). Some of the factors that affect access to financial services include Income, wealth and education, Claessens (2006). Further factor of convenience and trust and the lack of need or ability to save are also important, as are overall perceptions of the formal sector which can be affected by banking crises and wider macroeconomic conditions, Claessens (2006). Convenience in terms of geographical conditions is recognized as a critical issue in the literature. Beck (2007), has undertaken cross-country analysis of the variation in banking sector outreach across countries. Outreach indicator are development that reflect the density of coverage geographical and demographically (banks branches and ATM's per 1000 km² or per 100,000 people) deposit and loan accounts per capita and loan/deposit to income ratios. In conclusion, a well-functioning financial sector is a very important for any development strategy based on the enhanced mobilization and productive use of domestic resources. This has since in the recent years seen the mushrooming of agency banking services in the Country by KCB, Equity, Co-Operative Bank, Chase Bank with a sole aim of increasing their customer base and bringing their services closer to their customers.

Muli (2008), sought to explore empirically the causal link between the level of financial development and economic growth in Kenya for the period 1967 to 2006. The study applied both the Granger-causality analysis and Error Correction Model. The results of the co integration analysis provided evidence of a stable long-run relationship between economic growth and

financial development in Kenya. However, the study did not explain the nature of the relationship. The financial services sector is the largest in the world in terms of earnings. Despite this potential to date the impact of large commercial banks on expanding economic opportunity has remained limited to the developing countries, where a vicious cycle of insufficient information, inappropriate products, inadequate infrastructure and inflexible regulatory environment has kept costs and their prices high limiting companies markets to clients within the top tiers of economic pyramid. Although research about the financial sector and economic growth has been addressed in depth limited research has been done on the role the financial sector will play towards the achievement of vision 2030.

2.4 Summary of literature review

The theoretical view of a positive influence from the relationship between financial sector development and economic growth has realised a great support from the empirical literature. However, substantial changes have taken place in the world economy over the last twenty years and in particular, many of the less developed countries have moved directly from dependence on a primary economy to depending on the service sector and this requires a more robust financial sector that is allocating resources. In addition, from the literature review, the relationship between financial sector development and economic growth is not universal and this is deduced from the various findings concerning the relationship which use not more than three components especially for developing Countries and more so in Kenya. Further, the relationships among the variables within Kenya are not known. These research gaps provide the motivation for this study which intends to fill them up for the period between 1990 – 2013.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter entails a precise description of how the research was conducted. This included specification of models and variables to be addressed by the research, data collection, presentation techniques and finally the data analysis methods.

3.2 Research design

This refers to the methods and procedures followed in conducting the study. A research design is a method of study in depth rather than breadth and places more emphasis on the full analysis of a limited number of events or conditions and other interrelations, Cooper and Schindler (2003).

This study used a descriptive time series correlation study with the dependent variable being economic growth which was expressed as the annual growth rate of the real GDP while the independent variables were the labor force expressed as the annual population growth rate, annual growth rate of the real stock of liquid liabilities (M3), capital stock which was expressed as a ratio of investment to nominal GDP and exports which was expressed as the annual growth rate of goods and services. Webb, Campbell, Schwartz, and Sechrest (1966) posit that a time series study is descriptive in nature. This descriptive nature is particularly imperative when a variable being studied extends over a considerable time period. It is the only research design that considers a continuous record of fluctuations in study variables over an entire period in which the variables are being considered. This, therefore, justified the use of the time series analysis for this study since the aim of the study was to establish the relationship between economic growth and financial sector development variables by analyzing their behavior over time.

3.3 Data collection

Data refers to all the information that the researcher collected and used for the study. The data that was used was secondary data which was obtained from Kenya National Bureau of Statistics,

World Bank reports, CBK Economic survey. The data that was collected was for the period 1990 to 2013, and this included: Kenya's GDP, Annual population growth rate, annual capital stock accumulation, annual liquid liabilities and annual exports.

3.4 Data Analysis

The data that was collected was counter checked for completeness and consistency. The data was analyzed using spreadsheets and was presented in time series, graphs, tables and charts for easy understanding and statistical software (SPSS).

3.4.1 Analytical model

The relationship between the dependent and independent variable was expressed using the regression model as below:

$$Y = \alpha + \beta_1 L + \beta_2 K + \beta_3 M + \beta_4 X + \varepsilon \text{ where;}$$

Y is the economic growth measured as the annual growth rate of the real GDP;

α is a constant term;

$\beta_{1,2,3,4}$ are regression coefficients;

L is labor force growth proxied by population growth which will be measured as the annual population growth rate;

K is the investment/GDP ratio which will be computed as gross nominal fixed capital formation divided by nominal GDP;

M is the annual growth rate of the real stock of liquid liabilities (M3);

X is the annual growth rate of exports of goods and services and

ε is the error term.

3.4.2 Test of significance

The T- test at 95 % confidence level was used to determine the statistical importance of the constant term α , and the coefficient terms $\beta_{1,2,3,4}$. The F- test was used to determine whether the regression is of statistical importance at 95 % confidence level. The coefficient of determination, R and the Adjusted R² were used to determine how much variation explains variation in the dependent variables in the independent variables.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND INTERPRETATION

4.1 Introduction

This chapter mainly focused on the interpretation of the findings and the analysis of the data. It has presented the analysis of the data and the regression analysis results that have been compared with other studies.

4.2 Analysis of data and presentation of findings

This section got into details of the findings and interpreted the data of the study.

4.2.1 Economic growth rate (GDP)

Table 4.1 provides the summary statistics for economic growth rate (GDP) between 1990 and 2013. The arithmetic mean growth rate for Kenya was 3.4 percent ($\sigma = 2.1$). The highest rate of GDP growth was 7.1 percent in 2007, and the lowest was -0.8 percent realized in 1992.

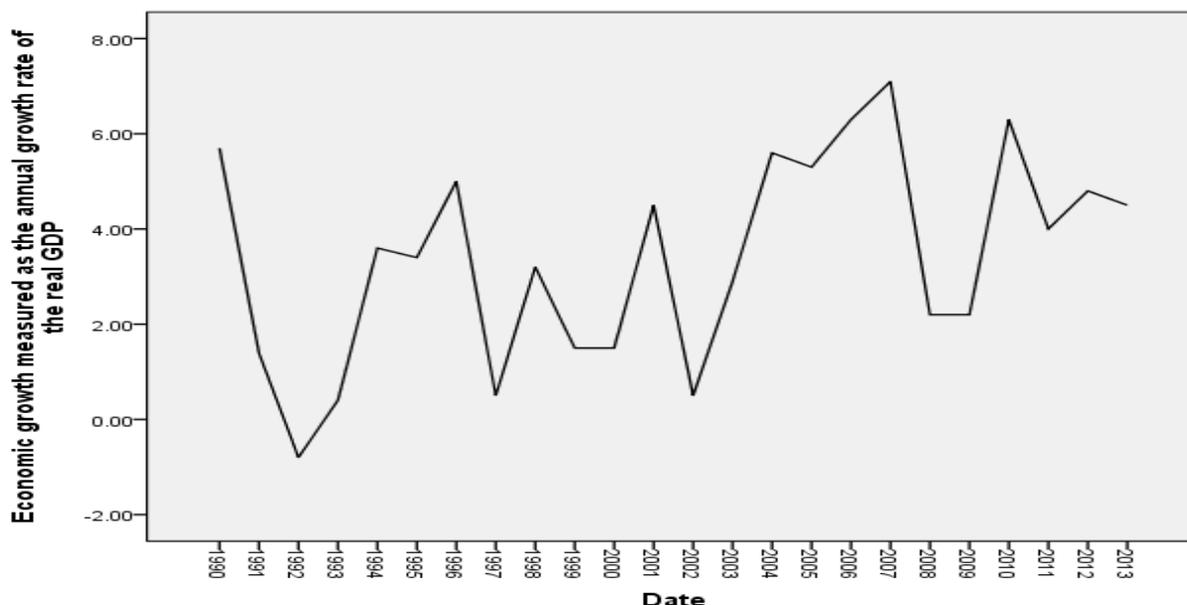
Table 4.1: Summary statistics for economic growth rate (GDP)

Descriptive Statistic	Percentage
Mean	3.4
Standard Deviation	2.1
Minimum	-0.8
Maximum	7.1

Source: Research findings

As shown in figure 4.1 below, the GDP growth rate has been on the upward trend but very erratic and unstable. The highest level attained was 7.1 percent in 2007 but followed by a sharp drop to -0.8 in 1992.

Figure 4.1: Time series plot of economic growth rate (GDP %) in Kenya



Source: Research findings

4.2.2 Labour force

Labor force growth was expressed by proxy by the population growth which was measured as the annual population growth rate. As shown in Table 4.2, the highest level was 3.4 percent in 1990 while the lowest was 2.6 percent in 2007. The arithmetic mean growth rate for Kenya was 2.8 percent ($\sigma = 0.3$).

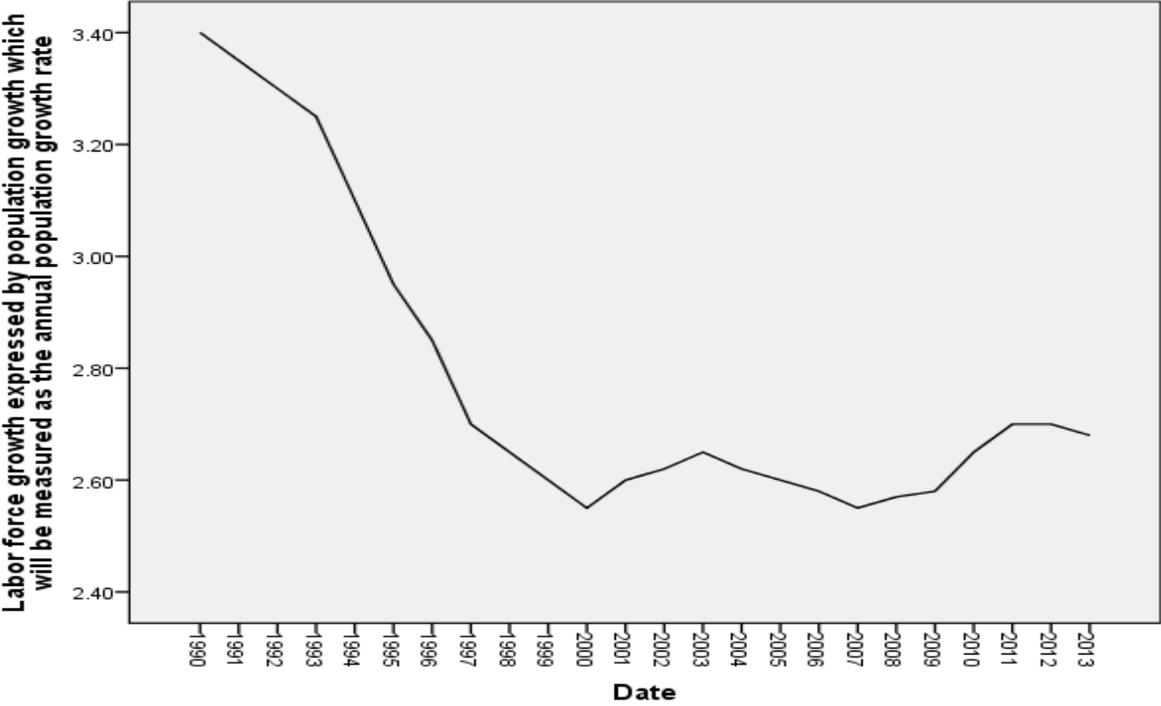
Table 4.2: Summary statistics for labour force (L)

Descriptive Statistic	Percentage
Mean	2.8
Standard Deviation	0.3
Minimum	2.55
Maximum	3.4

Source: Research findings

As shown in figure 4.2 below, the population growth rate has been on a sharp downward trend but smoothed from 1997. The highest level attained was 3.4 percent, and this dropped to a low of 2.55 percent in 2000 and thereafter fluctuating with minimal variances.

Figure 4.2: Time series plot of population growth rate (labor force) in Kenya



Source: Research findings

4.2.3 Capital stock accumulation

This was expressed as the ratio between gross nominal fixed capital formation and nominal GDP. As shown in Table 4.3, the maximum level was 21.9 percent in 1990 and the minimum level was 10.6 percent in 1999. The arithmetic mean growth rate in Kenya was 16.2 percent ($\sigma = 2.6$).

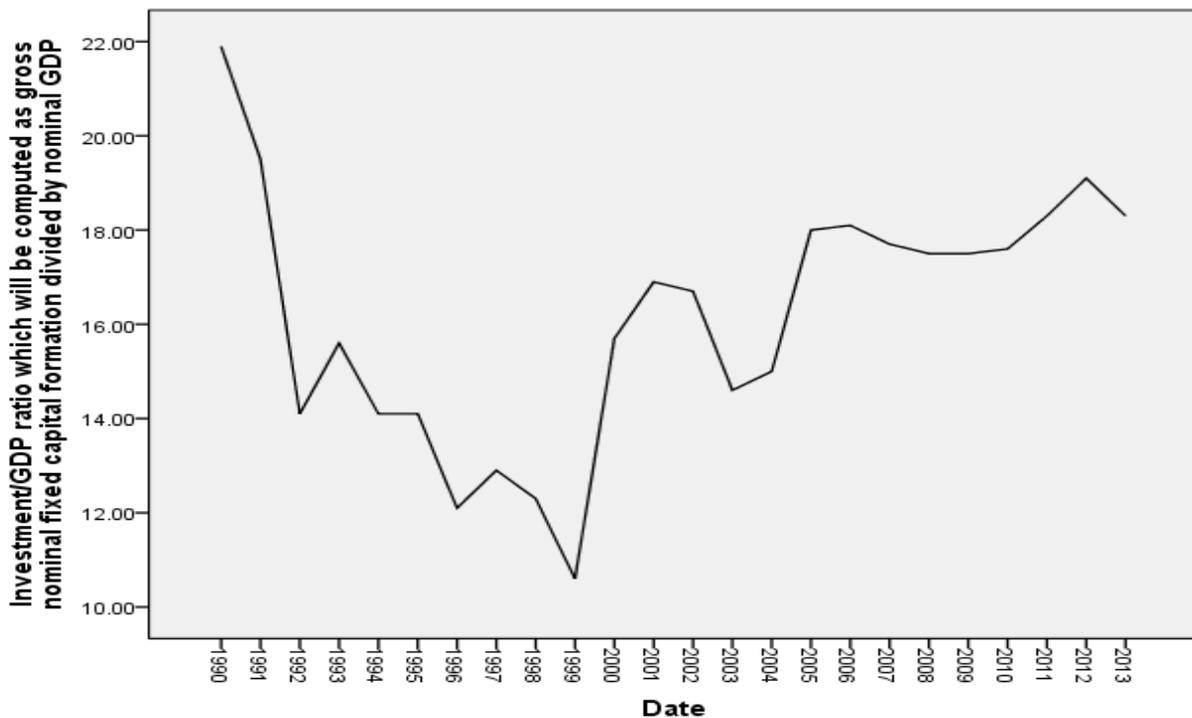
Table 4.3: Summary statistics for capital stock accumulation (K)

Descriptive Statistic	Percentage
Mean	16.2
Standard Deviation	2.6
Minimum	10.6
Maximum	21.9

Source: Research findings

As shown in figure 4.3 below, capital stock accumulation has been declining over the Years from a high of 21.9 percent to a low of 10.6 percent. However, this has been on the rise from 2000 with 15.7 percent through with declines over the Years but on a reduced rate.

Figure 4.3: Time series plot for capital stock accumulation in Kenya



Source: Research findings

4.2.4 Liquid liabilities

Liquid liabilities are presented as an M3 variable of money supply in Kenya and are expressed as a percentage of all the liabilities. The highest level of National percentage liquid liabilities was 49.8 percent in 1994 while the lowest was 36.3 percent achieved in 2001. The mean rate of National percentage liquid liabilities was 41.6 percent ($\sigma = 3.9$).

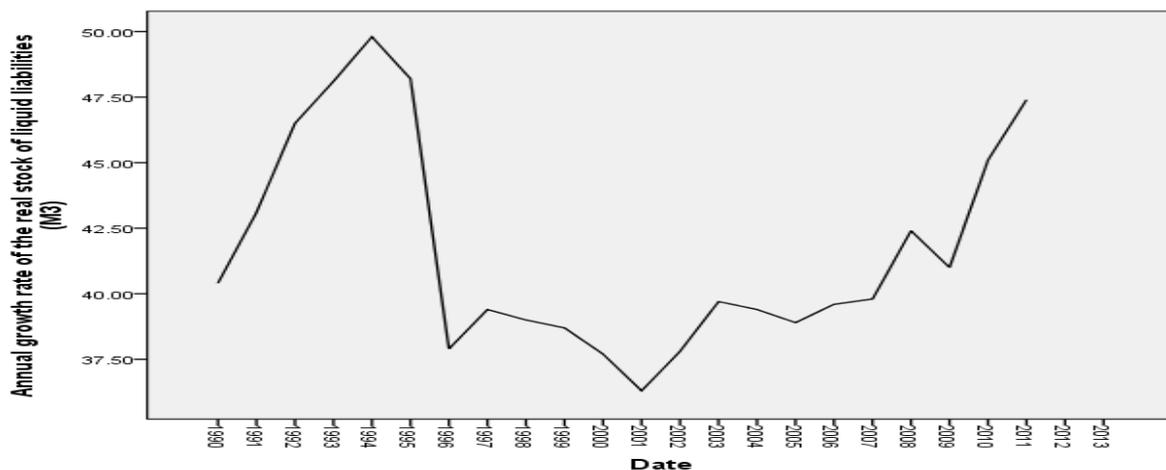
Table 4.4: Summary statistics for Liquid liabilities (M)

Descriptive Statistic	Percentage
Mean	41.6
Standard Deviation	3.9
Minimum	36.3
Maximum	49.8

Source: Research findings

As shown in figure 4.4 below, National percentage liquid liabilities reduced drastically from the highest point of 49.8percent in 1994 to the lowest of 36.3 percent in 2001. However, the rise from this low point has been at a reduced rate but the trend is upward from 2001 to 2013.

Figure 4.4: Time series plot for real stock of liquid liabilities (%) in Kenya



4.2.5 Exports

They have been expressed as the annual growth rate of exports of both goods and services from Kenya to other Countries. The maximum level was at 19.1 percent in 1994 while the lowest was negative 10 percent in 1997. The mean rate of exports was 6 percent ($\sigma = 8.6$).

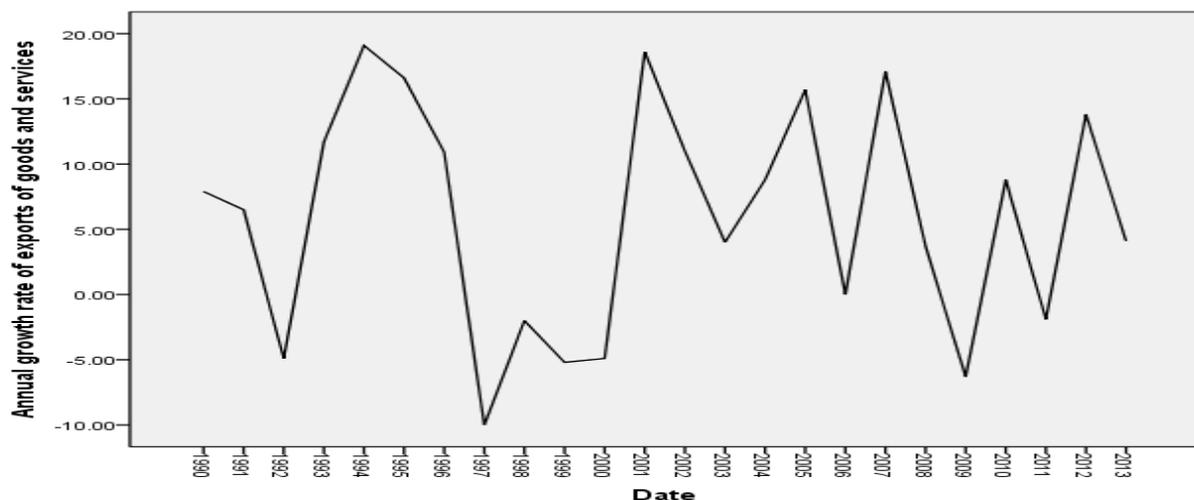
Table 4.5: Summary statistics for Exports (X)

Descriptive Statistic	Percentage
Mean	6
Standard Deviation	8.6
Minimum	-10.0
Maximum	19.1

Source: Research findings

As shown in figure 4.5 below, the exports have been quite unstable with the lowest being in 1997 at negative 10 percent. This instability can be attributed to fluctuations in the foreign exchange rate between the Kenyan Shilling and foreign currency.

Figure 4.5: Time series plot for exports (%) in Kenya



Source: Research findings

4.2.6 Correlation analysis

As illustrated in Table 4.6, there is a strong positive correlation between labour force and liquid liabilities, $N(24) = 0.55$. Medium strong positive correlation between GDP growth and exports, $N(24) = 0.48$. Weak positive correlation between GDP growth and stock capital accumulation, $N(24) = 0.39$; between labour force and stock capital accumulation, $N(24) = 0.14$; between labour force and exports, $N(24) = 0.14$; between stock capital accumulation and exports, $N(24) = 0.25$; between liquid liabilities and exports, $N(24) = 0.16$. Weak negative correlation between GDP growth and labour force, $N(24) = -0.29$; between GDP growth and liquid liabilities, $N(24) = -0.17$.

Table 4.6: Correlation Matrix

Correlations			Economic growth	Labor force growth	Investment/GDP ratio	Annual growth rate of the real stock of liquid liabilities (M3)	Annual growth rate of exports of goods and services
Economic growth measured as the annual growth rate of the real GDP	Pearson Correlation	1		-.289	.388	-.174	.479*
	Sig. (2-tailed)			.171	.061	.439	.018
	N	24	24	24	22	24	
Labor force growth expressed by population growth which will be measured as the annual population growth rate	Pearson Correlation	-.289	1		.141	.553**	.143
	Sig. (2-tailed)	.171			.512	.008	.504
	N	24	24	24	24	24	
Investment/GDP ratio which will be computed as gross nominal fixed capital formation divided by nominal GDP	Pearson Correlation	.388	.141	1		.043	.248
	Sig. (2-tailed)	.061	.512			.849	.243
	N	24	24	24	24	24	
Annual growth rate of the real stock of liquid liabilities (M3)	Pearson Correlation	-.174	.553**	.043	1		.157
	Sig. (2-tailed)	.439	.008	.849			.485
	N	24	24	24	24	24	
Annual growth rate of exports of goods and services	Pearson Correlation	.479*	.143	.248	.157	1	
	Sig. (2-tailed)	.018	.504	.243	.485		
	N	24	24	24	24	24	

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

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

Source: Research findings

4.2.7 Multiple Linear Regression

Table 4.7 below shows that 32.2 percent of the variability in economic growth is explained by annual growth rate of exports of goods and services, labour force growth expressed by population growth which will be measured as the annual population growth rate, ratio between gross nominal fixed capital formation and nominal GDP and lastly annual growth rate of the real stock of liquid liabilities (M3) holding all other factors constant.

Table 4.7: Multiple linear regression

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.672 ^a	.451	.322	1.84993

a. Predictors: (Constant), Annual growth rate of exports of goods and services, Labor force growth expressed by population growth which will be measured as the annual population growth rate, Investment/GDP ratio which will be computed as gross nominal fixed capital formation divided by nominal GDP, Annual growth rate of the real stock of liquid liabilities (M3)

b. Dependent Variable: Economic growth measured as the annual growth rate of the real GDP

Source: Research findings

4.2.8 ANOVA

Table 4.8 shows that regression is statistically significant because the p-value is less than 0.05, sig. = 0.03. We reject the null hypothesis, H_0 = Regression is not significant.

Table 4.8: ANOVA

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.808	4	11.952	3.492	.030 ^a
	Residual	58.178	17	3.422		
	Total	105.986	21			

a. Predictors: (Constant), Annual growth rate of exports of goods and services, Labor force growth expressed by population growth which will be measured as the annual population growth rate, Investment/GDP ratio which will be computed as gross nominal fixed capital formation divided by nominal GDP, Annual growth rate of the real stock of liquid liabilities (M3)

b. Dependent Variable: Economic growth measured as the annual growth rate of the real GDP

Source: Research findings

4.2.9 Regression Analysis

The obtained data was analysed using the regression model where GDP is the dependent variable, and the independent variables are labour force, stock capital accumulation, liquid liabilities and exports.

Table 4.9: Regression Analysis

Coefficients ^a					
Model	Unstandardized		Standardized		
	Coefficients		Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	7.731	5.059		1.528	.145
Labor force growth expressed by population growth which will be measured as the annual population growth rate	-2.923	1.697	-.378	-1.722	.103
Investment/GDP ratio which will be computed as gross nominal fixed capital formation divided by nominal GDP	.267	.155	.322	1.720	.104
Annual growth rate of the real stock of liquid liabilities (M3)	-.029	.121	-.052	-.241	.812
Annual growth rate of exports of goods and services	.117	.047	.469	2.512	.022

a. Dependent Variable: Economic growth measured as the annual growth rate of the real GDP

Source: Research findings

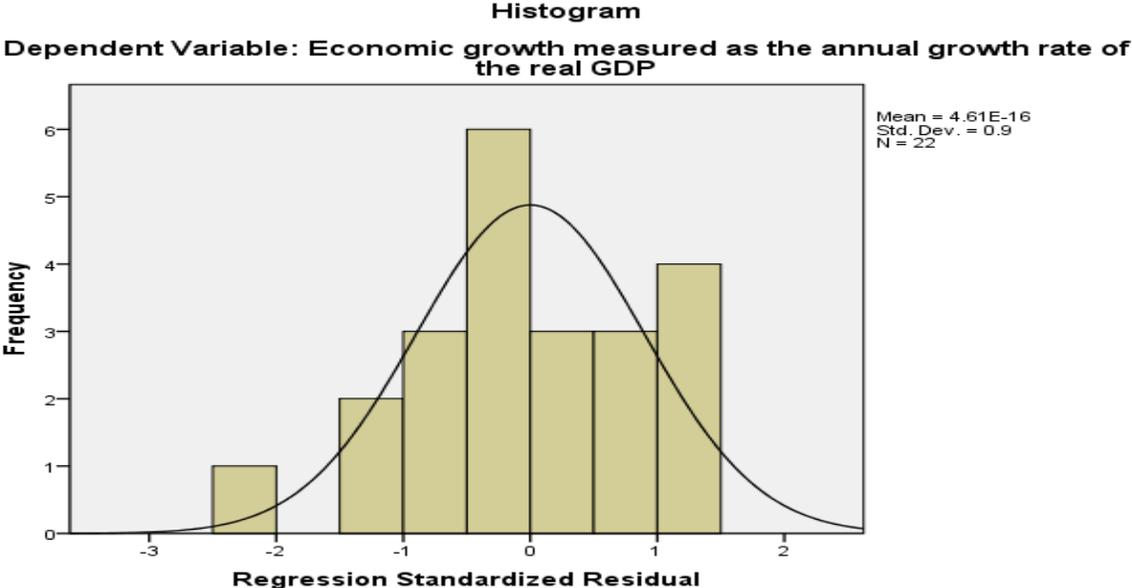
$$Y = 7.731 - 2.923*L + 0.267*K - 0.029*M + 0.117*X + \text{Error}$$

Table 4.9 shows that the constant term value is 7.731 which is not statistically significant, $t_{(24)} = 1.528$, $p > 0.05$. This constant term indicates that there would be a 7.731 percent growth in the GDP independent of a labour force, stock capital accumulation, liquid liabilities and exports. The value of the coefficient of labour force is -2.923 which is not statistically significant, $t_{(24)} = -1.722$, $p > 0.05$. This indicates that a 1 percent increase in population growth would result to a 292.3 percent decrease in GDP. The value of the coefficient of stock capital accumulation is 0.267 which is not statistically significant, $t_{(24)} = 1.722$, $p > 0.05$. This indicates that a 1 percent increase in stock capital accumulation would result to a 26.7 percent increase in GDP. The value of the coefficient of liquid liabilities is -0.029 which is not statistically significant, $t_{(24)} = -0.241$, $p > 0.05$. This indicates that a 1 percent increase in liquid liabilities would result to a 2.9 percent decrease in GDP. The value of the coefficient of exports is 0.117 which is statistically

significant, $t_{(24)} = 2.512, p < 0.05$. This indicates that a 1 percent increase in exports would result to 11.7 percent increase in GDP. The coefficient of determination, $R^2 = 0.451$, which indicates that 45 percent of the variation in economic growth is well explained by labour force, stock capital accumulation, liquid liabilities and exports though 55 percent is not explained. This therefore means that there are other factors which are not captured.

An important assumption of the regression model (OLS) that impact the validity of all tests (p, t and F) is that residuals behave “normal”. Residual (here indicated by the letter “ ϵ ”) is the difference between the observed values (Y) and the predicted values (\hat{Y}); ($\epsilon = Y - \hat{Y}$). As shown below in figure 4.6, residuals seem to follow a standard distribution.

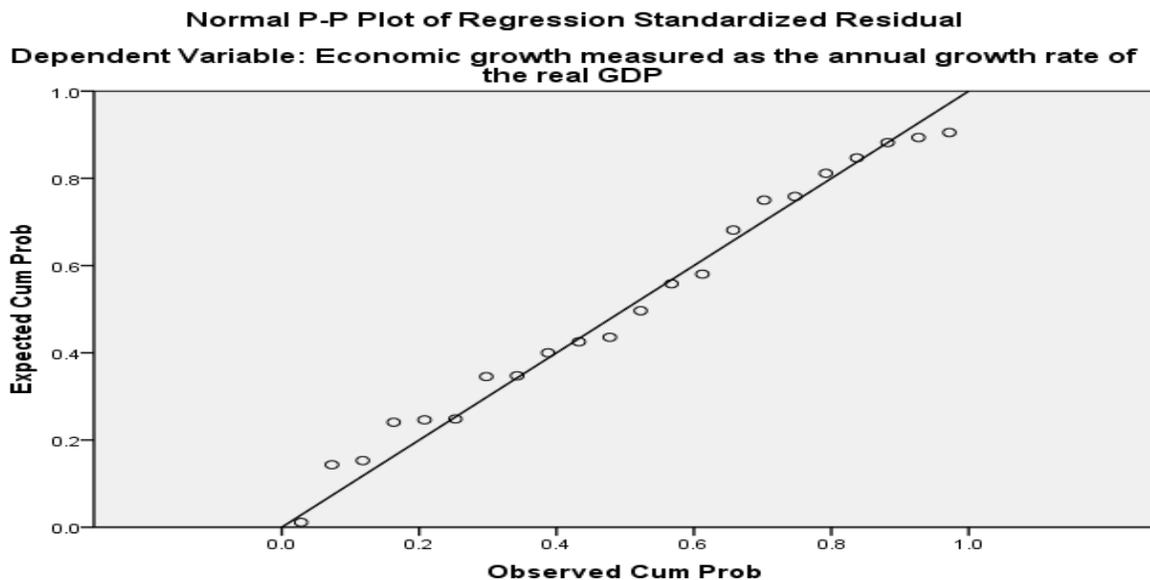
Figure 4.6: Residual distribution



Source: Research findings

Standardized normal probability plot checks for non-normality in the middle range of residuals. There is normality in the middle range of residuals according to the normal p-p plot as indicated by figure 4.7 below.

Figure 4.6: Normal p-p regression plot



4.3 Interpretation of the findings

The coefficient of labour force measured as the annual population growth rate is not statistically significant and shows a weak negative correlation between labour force and the GDP growth rate. This indicates that a high population growth rate negatively impacts on the growth of the GDP. This can be supported by Kelley (1988), who concluded that the economic growth (as measured by per capita output) in many developing Countries would have been more rapid in an environment of slower population growth, although in a number of Countries the impact was negligible, and in some it may have been positive. Dao (2000), concluded that the effect of population growth rate on per capita GDP growth is linear and everywhere negative. It is stronger when interaction terms are included in the statistical model. Governments in developing Countries can influence population growth in order to stimulate growth. China provides a clear example by suddenly introducing a collection of highly coercive methods to reduce the total fertility rate from about 5.8 to 2.2 births per woman between 1970 and 1980.

The coefficient of stock capital accumulation is not statistically significant but shows a weak positive correlation between GDP and stock capital accumulation where a 1 percent increase in stock capital accumulation would lead to a 26.7 percent increase in GDP. Rostow (1960), observes that for the process of economic development to actually take-off, there is the need for

sustained growth in terms of critical growth in the ratio of investment to National Income. Further, Lewis (1955), notes that the process of economic development involves transforming an economy from being a 5 percent saver and investor to that which is saving and investing at least 12 percent of its net income.

The coefficient of liquid liabilities indicates a weak negative correlation between GDP and liquid liabilities and it is not statistically significant. It further shows that a 1 percent increase in liquid liabilities would lead to a 2.9 percent decrease in GDP growth. This is supported by Levine (2005) who suggested that financial institutions and markets can foster economic growth through several channels by easing the exchange of goods and services through the provision of payment services, mobilising and pooling savings from a large number of investors, acquiring and processing information about enterprises and possible investment projects, thus allocating savings to their most productive use, monitoring investment and carrying out corporate governance, and diversifying, increasing liquidity and reducing intertemporal risk. Each of these functions can influence saving and investment decisions and hence economic growth. Schumpeter (1934), sees the banking sector as an engine of economic growth through its funding of productive investment.

Lastly, the coefficient of exports which is statistically significant has a medium strong positive correlation between GDP growth rate and exports where a 1 percent increase in the exports of goods and services will result in an 11.7 percent increase in growth rate. This finding can be supported by Kalaitzi (2013), who examined the relationship between exports and economic growth in the United Arab Emirates over the period 1980 – 2010. The study applied the two-step Engle – Granger cointegration test and the Johansen cointegration technique in order to confirm or not the existence of a long-run relationship between the variables. Moreover, this study applied a vector autoregression model in order to construct the impulse response function and the Granger causality test to examine the causality between exports and economic growth. The findings of this study confirmed the existence of a long-run relationship between manufactured exports, primary exports and economic growth. In addition, the Granger causality test showed unidirectional causality between manufactured exports and economic growth. Thus, a further increase in the degree of export diversification from oil could accelerate economic growth in UAE.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The theoretical position by finance led growth hypothesis, growth driven finance hypothesis, and bi-directional hypothesis indicate that there is a close relationship between financial sector development and economic growth of a Country. The finance led growth hypothesis suggests that the development of the financial sector of a Country causes economic growth whereas the growth driven finance suggest that financial sector development is caused by economic growth while bi-directional hypothesis shows that causality is in both directions. This study was aimed at finding out what is the relationship between financial sector development and economic growth (GDP) in Kenya using more than three components of the financial sector since previous studies consider one component of the financial sector in relation to economic growth. The research covered a period of 24 Years from 1990 to 2013 where the dependent variable was the economic growth rate (GDP) while the independent variables were the components of the financial sector which included labour force, liquid liabilities, capital stock accumulation and exports (of both goods and services).

This study established that the Kenyan economy would grow by 7.731 percent independent of labour force, liquid liabilities, capital stock accumulation and exports. It further established that a 1 percent increase in population (labour force) will lead to a 2.2923 percent decrease in the GDP growth, an increase in 1 percent of capital stock accumulation would lead to a 26.7 percent increase in the GDP growth rate, a 1 percent increase in the liquid liabilities will lead to a decrease of the GDP by 2.9 percent and lastly, a 1 percent increase in exports will result in increased growth of the GDP by 11.7 percent. The regression model illustrated the relationship between the economic growth rate and labour force, liquid liabilities, stock capital accumulation and exports.

5.2 Conclusion

From the analysis made in this study, this paper concludes that it is evident that financial sector development is important in determining the economic growth in developing markets like Kenya. Many sectors of the economy depend on the financial sector for growth and, therefore, without the input of the financial sector, economic growth is hindered since no economy performs without finances. Firms are more productive and grow faster when long term finances are availed to them, Caprio and Demirguc-Kunt (1997). This is true more so for the developing Countries, whose financial sectors are likely to be particularly underdeveloped, and without it economic development may be constrained, even if other necessary conditions are met. In Kenya, the relationship is no different since the relationship between financial sector development and the economic growth rate is strong with components of the components of the financial sector playing a major role; labour force (population growth rate), liquid liabilities, capital stock accumulation and the exports of both goods and services. Kenya's economy will grow positively independent of the financial sector development and this therefore concludes that there are components that can drive the economy that are not captured in the model of this study and hence there would still be a positive growth in Kenya's GDP even with no change in population growth, liquid liabilities, capital stock accumulation and the exports. The findings reveal that capital stock accumulation and exports of both goods and services have a positive effect on the economic growth of Kenya. This means that an increase in either will lead to GDP growth while a decrease in either will have a negative impact on the GDP growth. On the other hand, the relationship between real stock of liquid liabilities as a component of financial sector development and economic growth is inversely related and this causes a negative impact on the GDP since an increase in the liquid liabilities will cause the GDP to be shaken negatively. The population growth rate which is proxied by the labour force reveals a negative relationship and hence a negative effect on the GDP growth. This implies that an increase in the population which is not consequently involved in the economic growth will indeed lead to a decreased GDP growth rate. Lastly, from the study it is the economic growth, which Granger causes financial development which means that its financial sector which drives the economy which leads to economic growth and this is can be supported by Jung (1986), who suggested that in developing Countries the causal relationship runs from financial development and economic growth while in the developed Countries it runs from economic growth to financial development.

5.3 Policy recommendations

Financial sector development triggers economic growth hence based on the findings of this paper, it therefore recommends that strategies that enhance this relationship be put in place as a mechanism of stimulating the economic growth in Kenya. Kenya's economic growth will grow positively independent of the financial sector development and this therefore means that there are other factors that drive the economic growth and are not captured in this model. These components need to be identified, their relationship with the economic growth established and their management plans put into place for the enhancement of the GDP growth. With liquid liabilities and population growth rate having a negative impact on the GDP growth, policies should be drafted and implemented in order to control their respective growths since they have a major role to play in the economic growth. China for example introduced highly coercive methods to reduce the total fertility rate from about 5.8 to 2.2 births per woman between 1970 and 1980. Exports have a positive impact on the GDP growth rate hence trade relationships and international relations should be enhanced, established, strengthened and protected as this will grow and open up Kenya's export market and its trading partners. Capital stock accumulation influences the economic growth positively hence policies that support the growth of real investment should be developed and enhanced as this will steer capital flow in the financial assets.

In conclusion, the Kenyan Government should strengthen the reforms in the financial sector which can attract investors and improve the efficiency of all production activities in the Country since all these, lead to economic growth in the long-run. In addition, implementing policies that lead to economic growth will in the short-run and long-run lead to the development of the financial sector. Thus, the government should enhance macro-economic policies especially the fiscal policies, policies that attract foreign direct investment, and export promotion policies that will on average, lead to economic growth. With economic growth, demand for financial services will increase, leading to the development of the financial sector.

5.4 Limitation of the study

The research finding from this paper is only applicable in Kenya and within the period of the study and thus does not establish whether the findings are similar within other developing Countries. In addition, the paper has not exhaustively investigated if the findings are applicable

after 2013 or are only applicable within the context of the historical data and this can be supported by Onumwere (2008), who suggested that cross country evidence is essential for time series data in order to eliminate Country specific variants and enhance validity of the findings.

Secondly, the study used data for a 24 year period (1990 – 2013) which can be considered to be minimal when studying the variables. This is a limitation that may affect the validity of the research, and however this was necessitated by the limited existence of the data. Further, the paper failed to put into considerations other components that may have been taking place and may have influenced the real economic growth such as inflation and interest rates and terms of trade (proxy for external shocks to the economy).

Thirdly, the empirical studies on the relationship between financial sector development and economic growth involve collection of time series data which has to do with a lot of pre-tests and investigations and this affected the quality of the research work.

5.5 Suggestions for further research

A further study can be done to include behavioral financial issues other than relying on historical data as this will strongly provide an explanation for variations in the economic growth rate beyond the historical data on the variables of the financial sector development.

Secondly, this paper proposes future research to include other components like by incorporating foreign capital inflows, inflation and interest rates in Cobb-Douglass production function for Kenya as suggested by Rahman and Shahbaz (2012), and by implementing the rolling window approach that provides better results, compared to other cointegration approaches, Hye and Islam (2012).

Thirdly, further studies to include both developing and developed economies in order to enhance and enrich the findings and provide more room for generalizability as it will provide a wider population which will be more informing and will give more variable results as opposed to this paper which focused in Kenya a developing Country for a period of 24 Years.

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APPENDICES

Appendix 1: Introduction Letter



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TO WHOM IT MAY CONCERN

The bearer of this letter DNESMWS MULI KYALE

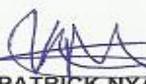
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is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.


✓ **PATRICK NYABUTO**
MBA ADMINISTRATOR
SCHOOL OF BUSINESS

