# EFFECT OF FINANCIAL DEEPENING ON ECONOMIC GROWTH IN EAST AFRICA

BY

DAVID M | MASWII

D61/87262/2016

UNIVERSITY OF NAIROBI LIBRAR. EAST AFRICANA



A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF BUSINESS ADMINISTRATION, UNIVERSITY OF NAIROBI

**NOVEMBER 2018** 

81.380013

A++ H++ 187.5 ,A353N.37 C:2

\$170.0

#### **DECLARATION**

I declare that this research project is my original work and it has not been presented in any other learning institution for academic award.

Signature. TWWW

Date 14/12/18

David M. Maswii

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

Signature Action

Date...14/14/18

Dr. Duncan Elly

Lecturer, School of Business

University of Nairobi

### **ACKNOWLEDGEMENT**

First and foremost, I acknowledge the Almighty God for the mighty work he has done in my life. I extend my appreciation to my supervisor Dr. Duncan Elly for his support and guidance. Appreciation also goes to the lecturers of the School of Business, University of Nairobi who faithfully imparted their knowledge and skills throughout the course.

### **DEDICATION**

This Project is dedicated to my wife Jacqueline Mutune for her love, support and encouragement during the entire duration of the course. I also dedicate to my daughters: Britney Mwende, Mary Musivah and Abigael Kamutu. This project will be a source of motivation for hard work when they become of age.

### **TABLE OF CONTENTS**

DECLARATION	. ii
LIST OF TABLES	vii
LIST OF FIGURESv	/iii
ABSTRACT	ix
CHAPTER ONE	1
INTRODUCTION	. 1
1.1 Background of the Study	. 1
1.1.1 Financial Deepening	. 2
1.1.2 Economic Growth	. 3
1.1.3 Financial Deepening and Economic Growth	. 4
1.1.4 East Africa Community	. 5
1.2 Research Problem	. 6
1.3 Research Objective	. 8
1.4 Value of the Study	. 8
CHAPTER TWO	. 9
LITERATURE REVIEW	. 9
2.1 Introduction	. 9
2.2 Theoretical Review	. 9
2.2.1 Financial intermediary theory	. 9
2.2.1 Financial intermediary theory	
	10
2.2.2 Finance led growth Theory	10 11
2.2.2 Finance led growth Theory  2.3 Determinants of Economic Growth	10 11 14
2.2.2 Finance led growth Theory	10 11 14 15
2.2.2 Finance led growth Theory  2.3 Determinants of Economic Growth  2.4 Empirical studies  2.5 Conceptual Framework	10 11 14 15 16
2.2.2 Finance led growth Theory  2.3 Determinants of Economic Growth  2.4 Empirical studies  2.5 Conceptual Framework  2.6 Summary of the literature Review	10 11 14 15 16
2.2.2 Finance led growth Theory  2.3 Determinants of Economic Growth  2.4 Empirical studies  2.5 Conceptual Framework  2.6 Summary of the literature Review  CHAPTER THREE	10 11 14 15 16 18
2.2.2 Finance led growth Theory  2.3 Determinants of Economic Growth  2.4 Empirical studies  2.5 Conceptual Framework  2.6 Summary of the literature Review  CHAPTER THREE  RESEARCH METHODOLOGY	10 11 14 15 16 18 18
2.2.2 Finance led growth Theory  2.3 Determinants of Economic Growth  2.4 Empirical studies.  2.5 Conceptual Framework.  2.6 Summary of the literature Review  CHAPTER THREE.  RESEARCH METHODOLOGY  3.1 Introduction.	10 11 14 15 16 18 18 18

	3.4.1 Data Reliability	19
	3.4.2 Validity	19
	3.5 Data Analysis	19
C	HAPTER FOUR	22
D	ATA ANALYSIS, RESULTS AND DISCUSSION	22
	4.1 Introduction	22
	4.2 Descriptive statistics	22
	4.2.1 Rate of broad money	22
	4.2.2 Rate of credit financing	23
	4.2.3 Rate of financial market investments	24
	4.2.4 Change in Real GDP	25
	4.2.5 Employment Rate	26
	4.3 Inferential statistics	27
	4.3.1 Correlation analysis	27
	4.3.2 Regression analysis	28
	4.4 Discussion of Findings	30
	4.4.1 Link to theories	30
	4.4.2 Link to other empirical Studies	31
C	HAPTER FIVE: SUMMARY, CONCLUSION, RECOMMENDATIONS	33
	5.1. Introduction	33
	5.2 Summary of findings	33
	5.3 Conclusions	34
	5.4 Recommendations	35
	5.4.2 Managerial recommendations	36
	5.5 Limitations of the Study	36
	5.6 Suggestions for further study	37
R	EFERENCES	38
A	PPENDICES	
	Appendix I: Data Collection Sheet	i
	Appendix II: Economic Growth Statistics	
	Appendix II: GDP growth in East Africa	

### LIST OF TABLES

Table 4.2 Correlation Analysis	. 28
Table 4.3 Model Summary	. 29
Table 4.4 ANOVA	. 29
Table 4.5 Coefficients	. 30

### LIST OF FIGURES

Figure 2.1 Conceptual Framework	20
Figure 4.1 Rate of broad money	23
Figure 4.2 Rate of credit financing	24
Figure 4.3 Rate of financial market investment	25
Figure 4.4 Change in Real GDP	26
Figure 4.5 Employment rate	27

#### **ABSTRACT**

This study determined effects of financial deepening on economic growth in East Africa. Various studies have recognized that since the restructuring and regulation of financial institutions in East Africa from 2012, myriad changes have been witnessed in relation to economic growth. Some countries have witnessed economic growth while other have fully sunk in debts. The study identified that increased level of financial default in the financial sector, unregulated supply of money in the economy, real estate bubble, inflation; limited market information and high level of borrowing in the public sector are among the many financial related challenges affecting economic growth in East Africa. The study aimed at finding solutions to the existing study problems through investigating the effects of rate of broad money in the economy, effects of rate of credit financing and effects of rate of financial markets investment. In the research methodology, the study adopted descriptive research design. The study collected secondary data from Nairobi Securities Exchange, first tier banks and also Central bank financial reports. Data analysis was conducted through SPSS. The study used both descriptive and inferential statistics where inferential statistics composed of correlation and regression analysis. In the study findings, the current study identified that the rate of broad money has grown with a rate of 2.9 Billon Kenya shillings in the last five years, the rate of credit financing in East Africa has dropped with 20% from 2012-2017 while rate of financial markets investment has increased from 0.4 trillion to 1.3 trillion Kenya shillings. In relation to economic growth, findings identified that the economy has grown with a current rate of 6.2%, being the top most witnessed economic growth in Africa. Finding also identified that at Sig P<0.05, there is a relationship between rate of broad money and economic growth, rate pf credit financing and economic growth and also rate of financial markets investment and economic growth. Similarly, the study concluded that broad money in the economy, credit financing and financial market investment affects economic growth. In recommendations, the study urged EAC leadership to encourage free trade, amend policies to encourage investment in financial markets and also educate her community on the need to invest in the local financial markets. In relation to future recommendations, current study suggest that future studies should expand and investigate more on other factors affecting economic growth. Studies should focus on addressing obstacles preventing East Africa from achieving full potential. Future studies should also conduct comparison between effects of financial deepening in short run and long run because previous studies have provided conflicting account on in relation to financial deepening and its effects on economic growth in short run and long run.

## CHAPTER ONE INTRODUCTION

### 1.1 Background of the Study

The concept of financial deepening and its impact on economic growth has received a lot of attention in the current financial times. It has been identified that the reason why most of the countries remain under developed is due to lack of sufficient financial support from foreign companies, well-wishers, donors, foreign direct investors and government injection of money to the economy through either subsidies or granting cheap loans (Rahman & Mustafa, 2015). Globalization is among the factors which have been praised to contribute directly towards financial deepening and economic growth. This has contributed to the growth of capital markets and foreign direct investment which enabled investors to invest their financial resources to nations of their choice leading to enhanced flow of financial resources in an economy which affect the gross national product thus economic growth.

The study is informed by two main theories namely financial intermediary and finance led growth theories. Financial intermediary theory explains the importance of having different participants in the financial market with different financial related information and how this information contributes to financial deepening hence affecting economic growth. On the other hand, finance led growth theory points out the development or growth in the financial sector at large plays a significant role on economic growth of a nation.

East Africa is among the beneficiaries of increased financial deepening and this has been majorly contributed by intense investment witnessed from the Chinese, Japanese, British and Americans who have vowed to help the region grow economically through ensuring that they create various strategies which results to increase in financial deepening. For instance, the Chinese government has been a strategic partner of East Africa and Africa at large by granting governments loans for infrastructural development. Effective use of such loan services facilitate infrastructure development, provision of quality education

and supporting the industries which creates employment and facilitate money supply in the economy hence ensuring economic growth (Onwumere & Mounanu, 2012).

#### 1.1.1 Financial Deepening

According to Sackey and Nkurumah (2012), financial deepening is the process which involves increasing the provision of financial services through supply of financial resources to the economy. Supply of money in the economy in this case refers to quality money in high quantity with the aim of creating efficiency in various activities which support economic growth and development. A study conducted by Rahman and Mustafa (2015), identified that financial deepening contributes to the flow of goods and services in the economy. The study also identified that various players such as the financial institutions, capital markets, money markets, investors, central bank and brokers are among the main participants in financial deepening activities.

According to Nguena and Abimbola (2013), financial deepening is a process which involves a lot of activities (multi-faceted process). The primary approach of financial deepening involves the primary level of money supply in the economy through activities such as retail, small scale businesses, mobile money transfers among individuals and normal purchase of fast moving products, borrowing and lending money from family and friend. The secondary approach of financial deepening was considered to be the most important in an economy and these included activities such as mortgages, financial markets, internal borrowing from the public sector, external borrowing, banking, saving institutions, and allocating huge financial resources to infrastructural projects including the construction of roads and other national projects which enhance financial deepening.

Adan (2017) posits that positive financial deepening such as the rapid supply of financial resources within an economy with limited borrowing contributes effectively towards resources and risk management in relation to loss of financial resources through payment of debt and other leakages. The study established that developing countries encourages innovation, investment and entrepreneurship with respect to government subsidies to

ensure that there's increased exchange of financial resources in the economy. Other factors considered were increased investment in a planned economy.

#### 1.1.2 Economic Growth

The concept of the economic growth lies on the ability of a country to sustain its economic welfare through enhancing efficient production of goods and services, increase in investments, limited government expenditure on social services, increased export from a home country, creation of employment and ability to attract foreign direct investment (Helpman, 2004). The concept of economic growth of a country is measured by gross domestic product (GDP) which is a market measure of general value of goods and services produced in a home country. Economic growth not only determines the current state of a country but it also determines the ability of a country to participate in the global markets to access financial resources from World Bank and IMF (Garrett, 2014).

A Study conducted by Iram and Nishat (2009), established that economic growth is an indicator of a country's health. This clearly shows that healthy states portray high economic growth while unhealthy countries are under developed. Economic growth is also significant while placing value to a country. A country with poor economic growth is associated with certain aspects such as civil war and insecurity in general. This has been witnessed in most parts of Africa and gulf nations where civil war and insecurity has been a common phenomenon.

Although the GDP in East Africa states is considered much lower than the West, South, Central and North African countries, there has been increased economic activities in East Africa which have more effect on the economic growth of these countries such as creation of East Africa passport which facilitates the movement of traders and their products to fetch market within the region at minimal tax. Trade in East Africa is largely supported by the modern standard gauge railway, tarmac roads, tourism, food produce among other industrial and manufacturing infrastructure (Kazeem, 2017). A study conducted by Africa development bank (2017) also indicated that East Africa has experienced economic growth than any other region in Africa with 5.3% growth, led by

Ethiopia and Kenya; North Africa had a growth rate of 3.3%, Southern Africa 1.1%, Central Africa 0.8% and West Africa 0.4% as presented in Appendix I of the study.

### 1.1.3 Financial Deepening and Economic Growth

A study conducted by Al-Jarrahet al (2012) to address the effect of financial deepening in USA and UK indicated that the financial sector played a significant role in the economic growth of these countries. Although financial deepening was considered to contribute to increased inflation in the short run, the study identified a controlled market environment where demand and supply forces dictates the market, financial deepening was considered to contribute to economic growth. Financial deepening such as the stock exchange has enhanced the ability of the two countries to rely heavily on security investments as witnessed in New York stock exchange (NYSE) and London Stock exchange (LSE). Shaw (2013) supported the study and identified that the financial sector in the USA plays a significant role in the country's economy than any other sector. This was proven with the financial crisis which happened back in 2008-2009 where the financial crisis affected financial deepening to the whole world.

A study conducted by Apergis et al. (2007), established a positive relationship between financial deepening and economic growth. Theoretically, financial deepening in an economy increases money supply. When financial resources are available in an economy, it means there is quick access of cash and cash related resources which benefits both the small and large businesses. Growth in the business sector contributes to heavy investment and saving which enhances economic growth. The study further identified financial deepening in countries such as Switzerland has been one of the reasons why the country has maintained the most top economy in the world, with increased banking services which has resulted to money circulation in the economy hence spurring economic growth.

Raghuram and Zingales (2003), in their study concluded that financial deepening has been one of the most significant aspect of the economy contributing to risk reduction among the vulnerable groups while enhancing the households' ability to access quality services such as housing, medical and education. This clearly implies that when individuals are able to cater for their basic needs, the government will have the opportunity to build the economy in various ways such as investment and creation of employment which have a positive effect on economic growth including growth of investments, the country's GDP and exports.

#### 1.1.4 East Africa Community

Mohan (2015) stated that financial led economic growth is one of the most researched topics in the current economic growth in East Africa. The study established that for an economy to grow, the financial sector must be advanced. East Africa in general has relied heavily on investing in the financial markets encouraging banks to lend money to customers, borrowing from IMF and World Bank, and more so, strategic partnership with the Chinese manufacturing industry that have brought about new technologies and production methods aimed at creating self-employment opportunities to the population that ultimately results to economic growth.

Report by financial Sector Development Program (2016), established that enhanced financial deepening in Africa, especially by FSD which is a UK government funded institution has reduced poverty through funding financial markets that are inclusive, efficient and robust. The concept of FSD in the East Africa context is to enhance financial deepening through stakeholder partnerships not only through the financial markets alone. The slogan adopted by FSD include finance for all which is aimed at ensuring that small scale businesses, individuals and major markets have a good flow of financial resources towards economic development and growth (Chogii, Aduda, & Murayi, 2014).

A report by World Bank (2009), on analysis of financial deepening in East Africa established that a well-developed financial system facilitates economic growth through various activities such as saving, trade, risk management and efficient use of resources. For instance, the study established that even though East Africa is far much from achieving advanced financial system, the potential to grow has been witnessed with

various economic and financial activities expected to occur such as increased investment in security, modern banking system including internet banking and investment in global financial markets. This has clearly contributed to increased economic growth and it is expected to growth with 20% by 2030.

Likewise, Ghildital, Pokhriyal & Mohan (2015), conducted a study on impacts of financial deepening on economic growth and concluded that the financial sector is the nervous system for economic growth. Financial system not only in East Africa but across the globe is mandated with the responsibility of controlling the surplus and the deficit spending units. The study clearly identified that provided financial deepening results to economic growth, watch out and moderation must be conducted to ensure that there's limited supply of money in the economy while ensuring that a country does not operate in a deficit expenditure.

#### 1.2 Research Problem

The concept of financial deepening and economic growth is among the most discussed concepts by researchers, institutions and governments. The financial system for instance is one of the major sectors for economic growth. A country without strong financial system is prone to failure and so does poverty (Sackey & Nkurumah, 2012). East Africa comprises of developing nations and this clearly indicates that the countries are not close to attaining suitable economic growth. Studying this topic and variables will greatly contribute to the creation of new knowledge in relation to conducting effective financial deepening, effective in the aspect that it does not hurt the economy but boosts economic growth.

Since the amendments of financial act in 2012 in Kenya, the provision of financial services has increased leading to the growth of East Africa. Banks and other financial institutions have been able to gain financial resources which enable them to advance loans and invest in real estate, money markets and partner with the retail market. However, financial deepening in East Africa has encountered various challenges such as financial default due to unregulated supply of money and real estate bubble as being

witnessed in Capital cities especially in Nairobi. These challenges have not only affected the financial sector but also resulted to significant effect on economic growth.

Al-Jarrah et al, (2012); Shaw (2013); Apergis et al., (2007) conducted studies on the effect of financial deepening on economic growth. The findings revealed that the world economic giants including USA, UK and Switzerland that have been fully reliant on the financial system. Increased financial deepening with respect to financial security and risk management has generally contributed to creation of economic growth activities such as investment in the money market, banking services, retail, capital market, short term and long term securities among others. The studies however failed to provide the negative effects of financial deepening such as inflation, interest rates and limited market control by supply and demand. The studies also emphasized on explaining how financial deepening has been significant to the developed nations hence ignoring its impacts on developing nations. This study aims at bridging this gap through identification of the effects of financial deepening on economic growth in East Africa.

Local studies conducted by Odhiambo (2016); Onwumere and Mounanu (2012); Ngugi, Amanja and Maana (2008) and Ochanda (2014), established that financial deepening in East Africa contributes to intensified financial systems and increased access to finance such as in the public sector through international borrowing which has aided the central bank with enough financial resources to fund various projects. In relation to the private sector, investments such as in capital and money markets have been intensified, private borrowing, access to mortgages and access of financial resources at the retail level. The studies however did not provide recommendations in relation to what level should financial deepening be encouraged considering that the global crisis witnessed back in 2008 was as a result of increased supply of money in the economy. A report by IMF (2018) criticized approach used by African governments to acquire financial resources. Some of the countries have been barred from accessing international loans due to increased deficit budget and lack of public debt management mechanisms which affects economic growth. Based on the prevailing studies, it is clear that more studies should be conducted to address the issue of financial deepening in East Africa. The prevailing study

bridged this gap through answering the following question; what are the effects of financial deepening on economic growth in East Africa?

### 1.3 Research Objective

The study main objective was to investigate the effect of financial deepening on economic growth in east Africa.

### 1.4 Value of the Study

The current study is beneficial to the countries in East Africa since the study addresses how financial deepening affected economic growth. The study addresses national aspects which contribute to economic growth in relation to financial deepening such as growth in country's gross domestic product through intensified investments, creation of employment, gross national product and the benefit of financial deepening on increased government earnings.

The study is valuable to the private sector for companies investing in east Africa since it clearly presents reliable literature in relation to how financial deepening has helped and facilitated easy access of loans and other financial resources. The study addresses some of the most important theories which the private sector can rely on towards understanding effective use of increased financial resources towards organizational success.

The prevailing study is valuable to small scale business owners, entrepreneurs and retailers in East Africa since it addresses how financial deepening can help small retailers' access financial resources hence contributing to establishment of a more reliable source of income. The current study is valuable to future researchers in East Africa and the world at large who would be willing to undertake a study in relation to the effects of financial deepening on economic growth since this study acts as a guidance and reference material. The study contributes to the many literature studies conducted in relation to financial deepening hence contributing to creation of knowledge.

# CHAPTER TWO LITERATURE REVIEW

#### 2.1 Introduction

This chapter presents literature review on the effect of financial deepening on economic growth in East Africa. The study addresses theoretical review where theories such as financial intermediary theory and finance led growth theory will be discussed. The study explained the determinants of economic growth such as increase in investments, full employment, and technology, demand of economic goods and services, openness to trade FDI, political factors and gross domestic product. Concerning the empirical review, the study focuses on both international and local evidence in relation to financial deepening and its effect on economic growth. The chapter also presents conceptual framework and summary of the literature review.

### 2.2 Theoretical Review

This section discuses theory related to the prevailing study. Some of the theories under consideration include financial intermediary theory and finance led growth theory.

## 2.2.1 Financial Intermediary Theory

This theory emphasizes the significance of having different participants in the financial market with different financial related information and how this information contributes to financial deepening hence affecting economic growth. The theory which was coined by Mitchell in 2004 has received a lot of attention in relation to finance related investment. Financial intermediary theory is pegged from asymmetry information and agency theory (DeMarzo, 2004). Asymmetry information theory focuses on how financial markets end up being effective as a result of participants having different information in relation to investment vehicles and decision making hence making the financial market stable while agency theory on the other hand focuses on the ability of a financial agent to work on behalf of inventors' interest which is to create wealth and ensure economy remains stable. Financial intermediary theory comprises of individuals or parties with various information, resources and capabilities to ensure smooth flow of

financial resources in the economy hence resulting to financial deepening which has positive impact on economic growth (Oldfield, 2010).

Gorton and Pennacchi (2014), in their study on financial intermediary and liquidity creation indicated that financial intermediaries are not only middle men but they can also comprise of large institutions such as banks and other investment companies. According to the study, availability of financial intermediaries has resulted to creation of liquidity which is quite significant towards economic growth. For instance, the presence of investment banks has ensured that financial securities such as T-bills and corporate bonds trade easily hence increasing investment in the financial markets and encouraging circulation of money to the economy which contributes to growth.

Financial intermediary theory contributes a lot to the existing study since it points out the role played by the asymmetry and agency theories in the financial market. Studies clearly established that availability of financial intermediaries has not only contributed to increase in investments but has also contributed to the circulation of financial resources in the economy hence creating economic growth through investments, demand of goods and services, employment, innovations and the growth of GDP.

### 2.2.2 Finance led Growth Theory

Finance led growth theory was first introduced by Schumpeter in 1911 when the financial sector was limited to its activities. Finance led growth theory, formerly referred to as finance led growth hypothesis points out that development or growth in the financial sector at large plays a significant role on economic growth of a nation (Schumpeter, 1911). The theory was founded on the idea that financial sector acts as a catalyst to resource mobilization and financial sector mobilizes financial resources and enhances effective resource utilization through saving and investment. Saving and investments are considered to be key elements of economic growth (Gberevbie, 2011).

According Choong, et al (2010), understanding the relationship between financial development and economic growth is important in enhancing the economy of a nation.

The study however identified that in relation to the recent global and national financial crisis; the governments should play significant roles and to participate in the financial sector regulations to control the circulation of money. Inflation and other harmful activities in the economy are prone to a rise when the financial sector is fully controlling the economy.

Application of finance led growth theory in the current financial market portends to be effective towards contribution to the economic growth. The financial sector across the world has grown to be the backbone of economic growth. It is quite clear that once the financial sector collapses, the whole economy collapses. For instance, the global crisis which was witnessed back in 2008-2009 was as a result of failed financial sector to control the market such as supply of money on the economy. Other sectors couldn't control the crisis until stabilization of financial sector which was done in early 2010.

### 2.3 Determinants of Economic Growth

Economic growth lies on the ability of a country to sustain its economic welfare through efficient production of goods and services, increase investments, creation of employment and the ability to attract foreign direct investments. Some of the determinants of economic growth include financial deepening, employment, technology and growth in GDP.

#### 2.3.1 Financial Deepening

Pettinger (2017) stated that financial deepening results to increase in investment activities. Investments on the other hand contribute to economic growth. The study identified that financial deepening contributes to increase in aggregate demand. This clearly means that demand of goods and services produced in a country is expected to rise hence creating economic growth in the short run. The study however identified that financial deepening does not only contribute to positive effects on economy, but in the long run, intensified financial deepening such as in financial markets, advancement of loans and high supply of financial resources in the economy results to inflation when AD is higher than market equilibrium. The findings clearly indicated that financial deepening has both positive and negative effects on economic growth.

Financial deepening especially in the public sector has resulted to public investment; economy is expected to grow if a country invests its revenue in activities such as infrastructure, technology, industrialization and the transport system. Jung (2006) investigated financial deepening in the public sector and established that there are high chances of government to create employment to its people while contributing to operation in positive cash balance which boost economic growth.

#### 2.3.2 Employment

A study conducted by Ioan (2013) on the effects of employment on economic growth identified that in relation to the public sector, employment results to saving. For instance, in developed economies, creation of jobs has resulted to households' self-dependency and increased saving which results to supply of financial resources in economy hence resulting to investments. The effects of employment are also felt by the government since through employment; limited expenditure on provision of public services such as housing, health and education is reduced hence resulting to government saving on social services. Full employment also results to reduced taxation since financial resources flow effectively in the economy hence resulting to economic growth.

#### 2.3.3 Technology

Caliskan (2015) on his study on technology change and economic growth found that in a global economy, the reason as, to why most of the countries have witnessed economy growth is due to increased adoption of modern technology and technology growth. In the current 21<sup>st</sup> Century, technology is the key to every aspect of a business. Financial security, production of goods and services and conducting research and development requires the need to invest in technology which aid growth of economy since limited financial leakage can be witnessed.

A study conducted by Kvochko (2013) on five ways technology can help the economy, identified that one of the cost common ways in which technology has contributed to economic growth is through creation of employment. The prevailing study will only focus on three. It is estimated that 22% of the world labor market have gotten job in

relation to technology, which is in the ICT department or use of computer to enhance organizational performance. The second avenue in which technology has contributed to growth of the economy is contribution to the GDP. It is estimated that in Kenya for instance, technology and ICT in general has contributed to around 10% of the country's economy. The use of technology related services are among the extensive measure of technology diversity. The last way in which technology has contributed to economic growth is business innovation. Technology such as in the security market has enhanced the ability of investors to purchase and sell financial securities at the comfort of the zone hence contributing to economic growth through investments (Kvochko, 2013).

### 2.3.4 Growth in Gross Domestic Product (GDP)

According to Lepenies (2016), gross domestic product is the economic measure of a country's performance. This means that for GDP to be effective, calculation of a country's final goods and services must be put into consideration. When there is growth in a country's GDP, it clearly means that the country is growing stronger economically hence working towards feeding her people, producing for exports and investing heavily. If a country GDP remains constant or diminishes, it's clearly possible that there's no increment in production activities, exports are not growing and funds are being spent on social and economic development activities. For instance, a study published by World Bank (2018) indicated that the top three countries in the world with the most growing GDP include Libya, Ethiopia and India. Growth in GDP in these countries has translated to economic growth.

Wohlner (2016) identified that GDP is economic scorecard of country's economic health. The study identified that GDP is usually annualized or measured in quarterly basis. The study indicated that growth in a country's GDP has impact on investors' attraction hence contributing to increase in foreign direct investment which in turn enhances economic growth. The study also identified that GDP takes into account the aspect of country's inflation. Countries with high GDP tend to have low inflation and forces of supply and demand control the economy such as in USA, Europe and UAE. Control of inflation has significantly resulted to economic growth.

### 2.4 Empirical Studies

This section presents studies which have been conducted by other researchers in relation to financial deepening and economic growth. The section focuses both on international studies and local studies thus identifying gaps and recommendations conducted.

Chogi, Aduda and Murayi (2014) conducted a study on the effects of Capital market deepening on economic growth in Kenya and identified that the concept of capital markets and contribution towards economic growth has recently attracted attention among investors in Kenya and the government at large. The study which focused on descriptive research methodology of financial markets identified that capital markets have been considered among some of the key financial institutions contributing to financial deepening in Kenya and in the world at large. Investments in capital markets include a lot of participants such as suppliers of financial resources such as individuals, schools, hospitals, insurance companies, pension funds, the government, religious institutions and non-financial companies. In other terms, the capital market generally has been a key player in the economy hence contributing to economy growth.

Onwumere (2012) conducted a study on the impacts of financial deepening on economic growth in Nigeria financial markets cannot generally grow out of blues if the market is not ready to purchase or acknowledge their products. The study which was more focusing on the supply leading hypothesis established that efficient supply of financial resources generally contributes to economic growth. However, the study pointed out that with increased growth in technology and adoption of modern systems of enhancing financial supply, only the minorities of investors have welcomed the new system hence creating surplus in the economy which has affected the ability of the country to grow economically. The study recommended the need for the government to conduct extensive investment in public education and policies to enhance financial institutions ability to conduct training that encourage technology acceptance to facilitate investment which boost economic growth (Onwumere, 2012).

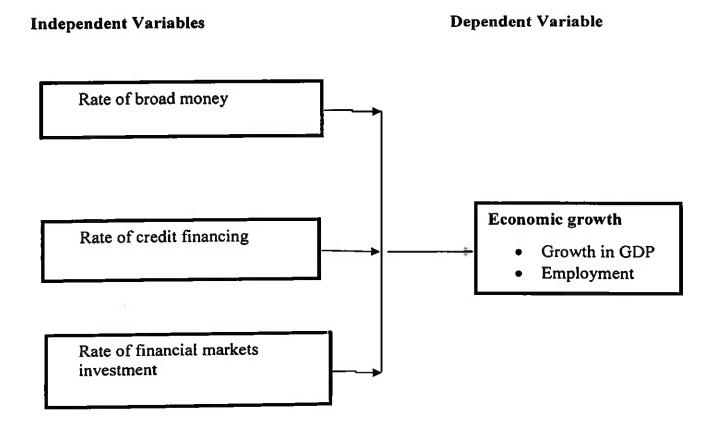
g (2007) examined the extent to which financial development has contributed to ansion of economy in Malaysia, for a period between 1960-2003. The study which orly based its argument on neoclassical growth framework to provide a clear estigating on the impacts of financial development in economic expansion and growth general identified that the aggregate economic output is determined by the integrity of economy in the long-run. The study acknowledges that the economies have failed to rain economic growth as a result of high inflation rate and non-regulated markets in economy such as black market. The study recommended the need for controlled incial environment through stakeholders' intervention (Ang, 2007).

ewise, a study conducted by Bakang (n.d) on the effect financial deepening on nomic growth in Kenya indentified that the banking sector in Kenya specifically the tral banks and commercial banks have played a significant role towards financial pening in the economy. The study which focused on quarterly survey report financial ort in 2012 clearly pointed out that the new regulations in the financial markets early 2 enhance the ability of banks and other financial institutions to develop in estment and distribution of money to the economy through various financial vehicles. wever, the study identified that provided regulations have enhanced flow of money to economy, reinforcement hasn't been fully intensified since cases of bad debts and h rate of financial defaults have been witnessed hence affecting efficiency in nomic growth (Bakang, n.d).

### Conceptual Framework

cording to Mugenda and Mugenda (2013), conceptual framework is a hypothesized del which presents concepts of the study and how the concepts are related. Conceptual nework is made up of two variables which are independent and dependent variable, independent variables have meaning on their own while the dependent variables rely vily on the independent variables to bring meaning to the study. The main aim of this ly is to clearly present the effects of financial deepening on economic growth in East ica. The study independent variables include: - Rate of broad money, rate of credit

financing, rate of financial investment while the dependent variable will be measured by growth in GDP, employment level and financial deepening as presented in Figure 2.1



### 2.6 Summary of the Literature Review

The concept of financial deepening and its impacts on economic growth has been one of the most discussed topics not only in Kenya, but in east Africa in general considering that the region has been generally involved in high borrowing from China and Europe in general. Broad money in banks, credit financing and increased investments in the financial markets have been considered as some of the factors contributing to financial deepening in the region. Studies also considered that provided financial deepening has both positive and negative effects, the positive effects such as economic growth through creation of employment, growth in a country GDP, enhanced technology access remains relevant for the study. Studies have potentially stressed on the effects of financial markets on financial deepening in East Africa through indicating that financial markets have becomes quite important on economic growth. Investments in capital markets for instance involves a lot of participants such as suppliers of financial resources such as individuals,

schools, hospitals, insurance companies, pension funds, the government, religious institutions and non-financial companies who generally participate in circulating money in the economy hence resulting to financial deepening.

Studies which focused on international and local perspectives also identified that increased growth in technology and adoption of modern systems of enhancing financial supply have resulted to financial deepening hence resulting to economic growth. Others studies on contrary identified that financial deepening has negative effects on the economy such as increased cost of accessing financial resources due to high inflation rate, which affects long-term economic growth. Studies on Financial led growth theory pointed out that the effect can be mitigated through having supply and demand take part in the economy and encouraging investments and savings.

#### **CHAPTER THREE**

#### RESEARCH METHODOLOGY

#### 3.1 Introduction

The purpose of this chapter is to present research methodology which includes research design, population, sample design, data collection, diagnostics test and finally data analysis.

#### 3.2 Research Design

Kothari (2010) stated that research design is a strategy which is used by individuals or researchers towards bringing different components of information together with aim of making suitable decision hence contributing to finding solutions to existing problem. The study adopted descriptive research design because it involves scrutinizing the propositions or questions of the study phenomena with aim of providing information related to the study. The descriptive research design also has minimal influence on the nature of information which respondents are willing to give hence presenting the actual study information.

Descriptive statistics were used to provide analytical understanding of quantitative statistics collected from first tier banks, central bank and Nairobi Securities Exchange. The study was guided by descriptive statistics to understand various financial figures.

#### 3.3 Data Collection

The study relied on secondary data. Secondary data is stored information which has already been used for other purposes. Data collection was conducted in First tier banks, central bank and Nairobi Securities Exchange towards identifying the rate of broad money in the economy, the rate of credit financing in the economy and rate of financial markets investments. This information was used to determine at what level financial deepening has contributed to economic growth. The study compared data for the last five 5 years that is from 2012-1017. The study used data collection sheet which recorded rate of broad money in the economy, the rate of credit financing in the economy and rate of financial market investments. The study adopted secondary data collection to capture information which reflects the entire East Africa considering all the first tier banks are

operating in east Africa, NSE is the largest investment market in East Africa while central bank has reliable financial statistics on Kenyan financial position and more so East Africa as well.

#### 3.4 Diagnostic Test

Diagnostic analysis involves tests which are used to examine whether the proposed data collection instrument will provide reliable and consistent information when tried more than once (Carvajal & Rowe, 2010). There are various measures towards diagnostics test. These include but not limited to: - data reliability and data validity.

### 3.4.1 Data Reliability

Study reliability is used towards understanding the stability of the research instrument when subjected to different levels or different time span to the same study group or random individuals selected from a study sample. The current study adopted test and rest method in determining study reliability. Cronbach alpha was also used to determine internal consistency of the research instrument. Internal consistency was determined since the study produced an alpha greater than 0.7.

### 3.4.2 Validity

Saunders, Lewis and Thornill (2003) state that validity of a research instrument measures what the instrument is set out to measure. The study focused on content validity which involves use of expertise judgment. In this case, university supervisor was used to review the content of the research instrument and make recommendations where appropriate.

### 3.5 Data Analysis

French (2016) stated that data processing is generally the conversion of raw data into usable information. In the prevailing study, the research adopted both descriptive and inferential data analysis techniques. Descriptive data analysis techniques involved frequencies, percentiles, means and standard deviation of the study variables. This was accompanied by disruption of study quantitative statistics into more meaningful information. In inferential statistics, the researcher focused on Pearson correlation analysis and regression analysis. Pearson correlation is a bivariate correlation which measures relationship between X and Y variables where X variable represents

independent variables (rate of broad money in the economy, the rate of credit financing in the economy and rate of financial markets investments) while Y variable represents dependent variable which includes economic growth.

Rate of broad money which is first variable of the study was measured through presentation of level rate of broad money in first tier banks and also liquid cash. The study compared rates from 2012-17 in descriptive form. In inferential statistics using Pearson correlation, the study determined how broad money relates with economic growth.

In the second variable of the study which credit financing, the study determined the percentage rate at which first tire banks and Nairobi Securities Exchange provide and access credit financing. This was conducted through comparison of secondary data from the year 2012-2017. The study adopted Pearson correlation in determining whether there is any relationship between credit financing and economic growth.

The third variable of the study which is rate of financial markets investments was measured through determination of the frequency rate at which investors invest in financial markets from the year 2012-2017. The study used secondary data stored in Nairobi Securities Exchange. In inferential statistics, the study used Pearson correlation in SPSS through determination of relationship between financial markets investments and economic growth.

Correlation analysis uses Significance level and the P value towards determination of relationship. If Sig P<0.05, then relationship between variables exists. Regression analysis was also used to determine whether the independent variables are related to dependent variable (Bowling, 2009). In restricted circumstances, regression analysis can be used to infer causal relationships between the independent and dependent variables. Overall regression analysis was determined through the level of variation, significance level through ANOVA table and coefficients which generate linear regression equation as presented below where data presentation was conducted through tables drawn from the study.

$$EGt = \beta_{0} + \beta_{1}RBM_{t} + \beta_{2}InRCF_{t} + \beta_{3}InRFMC_{t} + \epsilon$$

Where:

EGt = Economic Growth at time t

# EAST AFRICANA

 $\beta_0$  = Constant coefficient

 $RBM_t = Rate of Broad Money at time t$ 

 $InRCF_{I_t}$  = Rate of Credit Financing at time t

 $lnRFMC_t = Rate of Financial Markets Investments at time t$ 

 $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  = Regression Coefficients

 $\varepsilon = Error term$ 

## CHAPTER FOUR DATA ANALYSIS, RESULTS AND DISCUSSION

#### 4.1 Introduction

The purpose of this chapter is to present data analysis which was meant to determine the effects of financial deepening on economic growth in East Africa. The study specifically focused on identification of the effects of rate of broad money, rate of credit financing in economy and rate of financial markets investment. The study focused on secondary data from Nairobi Securities Exchange, Central bank's data and data from first tier banks in East Africa. Data collection was majorly based on countries which effectively participate in East Africa community such as Uganda, Rwanda, Burundi, Kenya, Tanzania and South Sudan which joined early 2016. Analysis is categorised into three sections where the first section of the chapter is based on descriptive statistics, the second section focuses on inferential statistics while the third section focuses on discussion of findings. Data was analysed at a confidence level of 95% hence indicating that the data presented was true to its value.

### 4.2 Descriptive Statistics

This section presents descriptive statistics in relation to both independent and dependent variables. In the independent variable, the study aimed at identifying the effects of rate of broad money, rate of credit financing and rate of financial market investments while in the dependent variable, the study identified real GDP and employment rate.

### 4.2.1 Rate of Broad Money

This section was aimed at presenting data in relation to the effects of broad money in the economy as presented in figure 4.1 below. The results were presented in Billions (Kenya shillings), within a period of five years and presents financial deepening in East Africa.

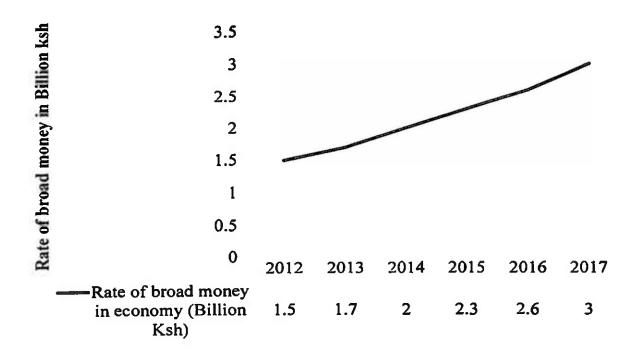


Figure 4.1 Rate of Broad Money

Results in figure 4.1 of the study identified that broad money (money in form of cash, bank deposits and coins) has increased tremendously over the last five years in the economy. In the financial year 2012, broad money was at a rate of 1.5 Billion Kenyan shillings while in 2013, the rate increased by 0.2 Billion Kenya shilling to 1.7 Billion in total. The findings also identified that in the financial year 2014, the rate of broad money in the economy was 2 Billion Kenya shillings while in the year 2015, the rate increased to 2.3 Billion Kenyan shillings. Findings also indicated that in 2016, the rate of broad money went up to 2.6 Billion Kenya shillings while in the financial year 2017, the rate picked to 3 Billion Kenyan shillings with expectation of more growth due to factors such as strengthened economic ties, heavy investment in infrastructure and social and political harmonization.

MIVERSITY OF NAIRUBI LIBRAN

### 4.2.2 Rate of Credit Financing

The purpose of this section is to present financial rate of credit financing and its effects on economic growth in East Africa. Findings were collected from first tier banks in East Africa, central bank of Kenya and Nairobi Securities Exchange.

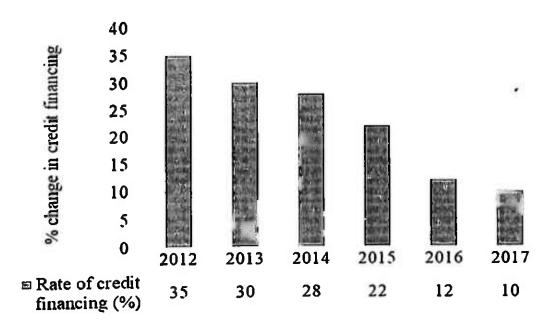


Figure 4.2 Rate of Credit Financing

Results in figure 4.2 identified that the rate of credit financing has dropped down at a high rate from the year 2012-2017. According to the findings, the rate of credit financing in relation to other forms of financing such as saving, shares, private support, donations, treasury security, government grants, taxation and mutual funds in 2012 was at 35%. In the year 2013, the rate dropped to 30% compared to other forms of financing. In the year 2015, credit financing was at 22% while in 2016 and 2017, credit financing was at a rate of 12% and 10% respectively. Drop in credit financing has been in relation to increased Bad debts, high interest rate and IMF regulations imposed on countries such as Uganda, Burundi and South Sudan. Findings identified that Kenya shares 6% of total debts in the year 2017.

## 4.2.3 Rate of Financial Market Investments

The purpose of this section is to present results on the effects of rate of financial market investment on economic growth in East Africa. The rate of financial market investment is presented in Trillion (Kenya shillings), as identified in figure 4.3 below;

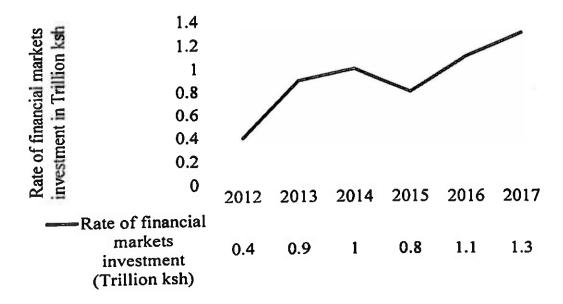


Figure 4.3 Rate of Financial Market Investment

Results in figure 4.3 of the study identified that the rate of financial market investments has been fluctuating within 5 years' financial period but at an increasing rate. In the financial year 2012, the rate of financial markets investment was 0.4 Trillion Kenyan shillings while in the year 2013, the rate grew to 0.9 Trillion Kenyan shillings. In the year 2014, the rate of financial markets investment grew to 1 Billion Kenya shillings while in 2015; there was a drop in financial markets investment to 0.8 Billion Kenya shillings. Findings identified that in 2016, there was a growth in financial markets investment to 1.1 Billion Kenyan shillings. Similarly, in 2017 financial markets investment grew to 1.3 Billion Kenyan shilling. Growth in financial investment has been attributed by the current reforms on financial markets in East Africa and more so in Kenya. Other factors include technology growth and investors need to focus on financial markets.

## 4.2.4 Change in Real GDP

INIVERSITY OF NAIRUBI LIBRAR

The purpose of this section was to present results in relation to change of real GDP in East Africa as a result of increased financial deepening. The results of economic growth were derived from countries forming East Africa economic block for a period of 5 years as presented in figure 4.4

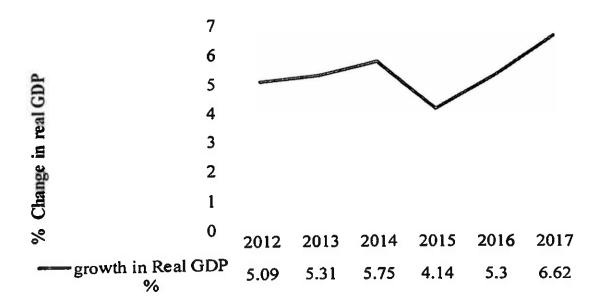


Figure 4.4 Change in Real GDP

Results in figure 4.4 identified that East Africa has witnessed growth in GDP since 2012. In relation to the data, it was identified that in 2012, the GDP grew to 5.09% while in 2013; GDP grew to 5.31% hence indicating 0.22% increase. In the financial year 2014, the GDP grew to 5.75% while in 2015; there was a drop of 1.61% decrease in GDP with Burundi recording 4.10% decline in GDP as reported in appendix III of the study. In the financial year 2016, GDP growth in East Africa went up to 5.3% while there was GDP record of 6.62% in the financial year 2017. Factors such as development in infrastructure with harmonized free trade within EAC have significantly resulted to economic growth.

### 4.2.5 Employment Rate

The purpose of this section is to present results in relation to the level of employment in East Africa. This was derived through reduction of unemployment from labour force as identified in figure 4.5 of the study.

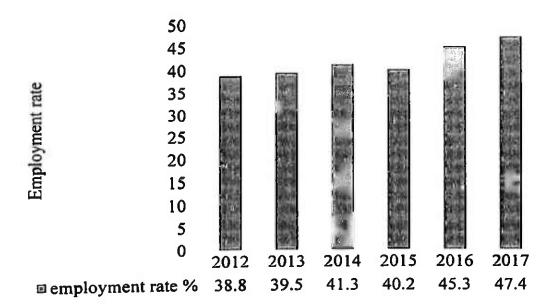


Figure 4.5 Employment Rate

Findings in figure 4.5 identified that employment rate in East Africa has grown since 2012- 2017 with limited cases of fluctuation in growth. In the year 2012, findings identified that the employment level was at a rate of 38.8% while in the year 2013; employment level grew to 39.5%. Findings identified that in the year 2014, employment level grew to 41.3% while in the year 2015, there was drop in employment level to 40.2% which picked up later in the year 2016 to a growth of 45.3%. In the year 2017, the employment level grew to 47.4%. Growth on employment level has been attributed by increased in self-employment through NGOs funded support economic activities and growth in industrialization and infrastructure labour demands.

## 4.3 Inferential Statistics

Inferential statistics is used to make conclusion about the entire population (Saunders, Lewis & Thornill, 2003). In relation to the prevailing study, the researcher focused on correlation analysis and linear regression analysis.

# 4.3.1 Correlation Analysis

Correlation analysis is part of inferential statistics which measures relationship between two variables as presented in table 4.2 of the study.

**Table 4.1 Correlation Analysis** 

Economic growth	Rate of broad money	Rate of credit financing	Rate of financial markets investment
n 1	-		
ation			
-tailed) n .930**	1		
ation	•		
-tailed) .007			
n .937**	978 <b>**</b>	1	
ation			
n .851°	.837*	828 <b>*</b>	1
ation			
-tailed) .031	.038	.042	
nt at the 0.01 level (2-t	ailed).		
	tailed) .006 n .851* ntion tailed) .031 nt at the 0.01 level (2-t	tailed) .006 .001 n .851 .837 ation	tailed) .006 .001 n .851* .837*828* ntion tailed) .031 .038 .042 nt at the 0.01 level (2-tailed).

Finding in table 4.2 of the study presents Pearson correlation which is used to determine relationship between independent and dependent variables. In the current study, the researcher aimed at determining relationship between rate of broad money and economic growth, relationship between rate of credit financing and economic growth and relationship between rate of financial markets investment and economic growth. According to Pearson correlation, relationship is determined if Sig. P<0.05. In the current study, the researcher identified that at Sig P<0.05 (r= .930\*\*) there is a relationship between rate of broad money and economic growth. In the second variable, findings identified that at Sig P<0.05 (r=.937\*\*), there is a relationship between rate of credit financing and economic growth. Findings in the third variable determine that at Sig P<0.05 (r=.851\*), there is a relationship between rate of financial markets investments and economic growth.

# 4.3.2 Regression Analysis

Regression analysis is a statistical measure which is used to determine association among variables. In other terms, regression determines the level and the effect on which each independent variable of the study has on the dependent variable. Measure of regression analysis produces three different interpretations which include model summary, ANOVA and also coefficients consecutively.

Table 4.2 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.947ª	.897	.743	1.75933
Rate of cre	dit financing	(%), Rate of broa	l markets investme d money in econom	nt (Trillion ksh) , ny (Billion Ksh)
b. Depende	ent Variable:	economic growth		

In relation to table 4.3, R square represents proportion of variation in the dependent variable that is explained by the combined effects of the independent variables. Adjusted R square represents adjustment for the number of variables in the model and the sample size which measures the deviation of variables. According to the findings, the study identified that independent and dependent variable had a variation of 89.7%. This clearly indicated that any adjustment in the independent variables will have an effect of 89.7% on dependent variable hence portraying there is a relationship between independent and dependent variable.

Table 4.3 ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	54.038	3	18.013	5.819	.015 <sup>b</sup>
_	6.190	2	3.095		
	60.228	5			
	Regression Residual Total	Regression 54.038 Residual 6.190	Regression 54.038 3 Residual 6.190 2	Squares         Square           Regression         54.038         3         18.013           Residual         6.190         2         3.095	Squares         Square           Regression         54.038         3         18.013         5.819           Residual         6.190         2         3.095

a. Dependent Variable: economic growth

ANOVA as presented in table 4.4 is used to determine association or differences among group of variables. Association is determined if Sig P<0.05. In the current findings, the study identified that there is association among rate of financial markets investment, rate of credit financing, rate of broad money and economic growth.

b. Predictors: (Constant), Rate of financial markets investment (Trillion ksh), Rate of credit financing (%), Rate of broad money in economy (Billion Ksh)

**Table 4.4 Coefficients** 

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	41.902	23.341	<u>-</u> :	1.795	.021
	Rate of broad money in economy (Billion Ksh)	1.087	6.948	.177	.156	.008
	Rate of credit financing (%)	199	.379	577	524	.049
	Rate of financial markets investment (Trillion ksh)	2.557	4.711	.225	.543	.005
a. Do	ependent Variable: econom	ic growth	_			

Results in table 4.5 were meant to determine association among variables and the nature of the coefficients. The coefficient table is pegged on the linear regression equation (Y =  $a+\beta_1X_1+\beta_2X_2+\beta_3X_3+\epsilon$ ). The linear equation is based on the concept that economic growth (Y) is composed of many factors and these factors can only be determined in relation to the effects they have on economic growth. Findings clearly indicated that economic growth is made up of a constant Beta variable of 4.902, 1.087 Beta coefficient of rate of broad money, -0.199 Beta coefficient of rate of credit financing and also 2.557 Beta coefficient of rate of financial markets investment. This translated to linear regression equation Y= 41.902+1.087X<sub>1</sub>-0.199X<sub>2</sub>+2.557X<sub>3</sub>+ 0.05. Findings also identified that there is a relationship among variable since the rate of broad money in the economy, rate of credit financing and rate of financial markets investment had Sig P.<0.05 consecutively.

# 4.4 Discussion of Findings

### 4.4.1 Link to Theories

Study findings clearly identified that financial deepening in East Africa has been potentially fuelled by increase in broad money in the economy which includes both liquid financial resources and also amount saved in the banks. Broad money in the economy has also resulted to intensified investment in the public sector and also in the private sector. In the second variable of the study which was rate of credit financing, finding identified

that although the rate of credit financing has dropped due to existence of bad debts and also intensified regulation in the financial sector, credit financing has greatly contributed to economic growth specifically in the public sector where there is heavy borrowing from international organizations. Findings identified that the rate of financial market investment has tremendously grown over years as a result of increased awareness technology change. Access to financial markets and investment within East Africa has greatly contributed to economic growth in East Africa.

The prevailing findings clearly links with finance led growth theory and also financial intermediary theory. Finance led growth theory advocated for the need of using financial advantage as a tool to spur economy which was in line with findings of the study which identified that growth of economy in East Africa has potentially been affected by access to financial resources from either credit financing or even investment in financial markets. In linking the prevailing findings to financial intermediary theory, the study identified that financial institutions such as banks, central bank, and money and capital markets have been the major intermediary institutions which have contributed towards economic growth through ensuring that there is eminent circulation of money to the economy.

# 4.4.2 Link to other Empirical Studies

The aim of the first variable of the study was to determine the effects of rate of broad money in the economy and its effects on economic growth. According to the findings, broad money in the economy create avenue for investment and also ease access of financial resources either in loans or saving. In determination of relationship between variables, the study identified that at Sig P<0.05, there is a relationship between rate of broad money and economic growth. In the second variable of the study which was meant to determine the effects of rate of credit financial and economic growth, findings identified that credit financing contribute to supply of money in the economy which is used to fund economic growth related activities such as infrastructure. Findings also identified that at Sig P< 0.05, there is a relationship between credit financing and economic growth. In the third variable which was meant to determine rate of financial markets investment in East Africa, findings identified that economic growth has greatly

attributed to investment in financial markets. The study also identified that there is a relationship between variables since Sig P<0.05.

The study findings agree with a study conducted by Chogi, Aduda and Murayi (2014) who identified that the concept of capital markets and contribution towards economic growth has recently attracted attention in East Africa, especially in Kenya where the largest Capital markets exists. Finding identified that through intense investment into the capital market, organizations create employment which is a significant factor in economic growth.

The study findings also concur with Onwumere (2012) who conducted a study on the impacts of financial deepening on economic growth in Nigerian financial markets. The study which was more focusing on the supply leading hypothesis established that efficient supply of financial resources generally contributes to economic growth. In relation to the current findings, the study identified that Broad money in the economy or rather supply of money in the economy results to economic growth because people will easy access to financial resources which boost their ability to invest, save and create employment.

#### CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

The purpose of this section is to present summary of the study findings in relation to objective of the study. The chapter also focuses on summary, conclusion and also recommendations of the study. The main objective of this study was to determine the effects of financial deepening on economic growth in East Africa. Recommendations were made on areas in which East Africa in General needs to focus in terms of financial deepening, policy and also strategic decision making towards spurring economic growth.

# 5.2 Summary of Findings

The main aim of this study was to determine the effects if financial deepening on economic growth in East Africa. The study identified that rate of broad money, rate of credit financing and rate of financial markets investment contributes to economic growth in East Africa. Study findings identified that the rate of broad money in the economy has tremendously grown over the last five years from 1.5 Billion Kenya shillings to 3 Billion Kenya shillings. Growth in broad money has been fuelled by heavy investment in infrastructure within East Africa and also increased economic ties in EAC. Finding clearly identified that at Sig P<0.05, there is a relationship between broad money and economic growth.

In the second variable of the study which was meant to determine the effects of rate of credit financing on economic growth, findings identified that although Africa in general has been bashed of increased borrowing from China and UK, the rate of credit financing has dropped from 2012 to 2017. Drop in credit financing has been influenced by high regulations in the financial markets within East Africa, resulting from bad debts. Other factors affecting drop in credit financing include regulations imposed by IMF to some countries, easy access of other forms of financing investment such as use of tittle deeds, savings and investment in money markets. In relation to inferential statistics, the study

identified that at Sig P<0.05, there is a relationship between rate of credit financing and economic growth.

Likely in the third variable of the study, findings identified that the rate of financial markets investment has also grown in the last five years with a growth of 0.9 Trillion Kenyan shillings. The findings also identified that growth in financial markets investment clearly depended on the nature of the economy. Other factors fuelling growth of financial markets investment include; - technology change, financial security in the money markets and likely ease of doing business in the money markets. The study noted that at Sig P<0.05, there is a relationship between rate of financial markets investment and economic growth.

The study also established economic growth witnessed since 2012 to 2017 although with fluctuating growth. This has been attributed by changes in GDP for a span of five years. Factors which have contributed to growth in GDP within East Africa are infrastructure development which has eased the ways of doing business, improvement in economic ties within East Africa and also technology advancement which has brought up new methods and ways of doing business.

### 5.3 Conclusions

The purpose of this study is to determine effects of financial deepening on economic growth in East Africa. The study concludes that there is a relationship between financial deepening and economic growth in East Africa. The study also concludes that the rate of broad money in the economy has contributed to increase in investment from the private and also public sector hence contributing to economic growth. In the second variable which was meant to determine the effects of credit financing, findings conclude that credit financing has also enhanced access of financial resources especially in the public sector where the government has potentially borrowed to fund infrastructure and create room for industrialization with aim of fuelling economic growth. This clearly indicated how credit financing related with economic growth. In the third variable of the study which was meant to determine the effects of rate of financial markets investment, the

study concludes that East Africa in general has witnessed increased rate of financial market investments. The study also concludes that growth in financial markets investments has resulted to economic growth since investment. There is generation of income and supply of money in the economy hence creation of employment and growth in GDP. Findings clearly concludes that there is a positive correlation between rate of broad money and economic growth, rate of credit financing and economic growth and also rate of financial markets deepening and economic growth. Findings conducted by World Bank (2018) and Bakang (n.d) supported this conclusion by indicating that there is positive relationship between financial deepening and economic growth. However, the study findings contradicted with a study conducted by Sackey and Nkurumah (2012) who identified that economic growth in Africa has been affected by increased level of poverty but not financial deepening.

EAST AFRICANA

### 5.4 Recommendations

The aim of this section is to present recommendations of the study where study recommendations are aligned with study valued and areas on which East Africa need to improve in relation to policy recommendations and managerial recommendations. Study recommendations are also in line with future studies.

The current study provides more knowledge to the theories and literature in relation to effects of financial deepening on economic growth. The study clearly addresses how East Africa in general can rely on broad money in the economy, credit financing and also financial markets towards economic growth.

The study will generally be of importance to EAC leadership since it clearly presents empirical information on how financial deepening can be used as a tool for economic growth. The current study recommends that East Africa should ensure that there is freedom of trade among the five countries in relation to flow of currency in the economy. This can be adopted by relinquishing all policies which bar adoption of common currency as means of economy exchange. East Africa Community should also strengthen the current financial markets through implementation of new policies which aids financial

investment and polices which bar exploitation of current financial markets by selfish investors such as foreigners.

The study further recommends that East Africa leadership should avoid borrowing from external lenders since this dilutes the region financial strength such as the purchasing power of East Africa currencies. Likely, the region should borrow from one another or from private sector or even offer long term debt instruments to the private sector such as bonds with aim of raising money from the public. The private sector should also invest heavily in the financial markets and also encourage the public to save and spend their hard earned money wisely. This will generally contribute to economic growth.

# 5.5 Limitations of the Study

The aim of this study was to determine effects of financial deepening on economic growth in East Africa where financial deepening was considered in form of rate of broad money, rate of credit financing and also rate of financial markets investment. The study was only limited to data collection from first tier banks in East Africa, Nairobi's security exchange and also Central bank reports.

Since the findings of the study were meant to determine the effects of financial deepening in East Africa, the study findings cannot be used as a tool to spur economic growth but can be used to determine and access the impacts of financial deepening on economy growth in East Africa where financial deepening should only be attributed to rate of broad money, rate of credit financing and also rate of financial markets investment.

The findings of the study also relied heavily on secondary data from various sources.

This clearly indicates that the prevailing study accuracy is pegged on secondary data from different sources and should not be used as a true measure of the economy without approving credibility of the secondary data.

## 5.6 Suggestions for Further Study

The current study on effects of financial deepening on economic growth in East Africa only focused on three variables. This clearly meant that the study was only limited to the rate of broad money, credit financing and also financial markets investment. Future studies should investigate further and determine more variables and factors affecting economic growth in East Africa. Future studies should not only focus on financial deepening but expand their scope to general factors affecting economic growth in East Africa.

Even though financial deepening has been witnessed in the past five years in East Africa, further studies should be carried out with aim of investigating obstacles which are preventing the region from achieving full potential in relation to economic growth. This clearly specifies that a deeper analysis in relation to effects of financial deepening on economic growth in East Africa should be carried out.

The current study also recommends that future studies should consider addressing the comparison of effects of financial deepening in short run and long run. Studies provided conflict accounts in relation to the effects of financial deepening in long run especially in relation to increased credit financing.

#### REFERENCES

- Ang, J. (2007). Financial Deepening and Economic Development in Malaysia, Asian Business and Economics Research Unit, 19(10), 340-356.
- Apergis, N., Filippidis, I., & Economidou, C. (2007). Financial Deepening and Economic Growth Linkages: A Panel Data Analysis. Review of World Economics. 143 (1): 179-198.
- Bakang, M. (n,d). Effects of financial deepening on economic growth in Kenya.

  International journal of business and commerce, 4(7), 2225-2436.
- Burns, N. & Grove, S.K. (2003). *Understanding Nursing Research*, (3<sup>rd</sup> ed.). Philadelphia: W.B. Saunders Company.
- Caloskan, H. (2015). Technological change and economic growth, retrieved from: https://www.sciencedirect.com/science/article/pii/S1877042815036538.
- Chogii, R, Aduda, 0, & Murayi, T. (2014). The Effect of Capital Market Deepening on Economic Growth in Kenya. *Journal of Applied Finance & Banking*, 4(1): 141-159.
- Choong, K., Yusop, Z., Law, H., Liew, V., & Sen, K. (2010). Financial Development and Economic Growth in Malaysia: The Stock Market Perspective. Working Paper Series, 3(1), 30-45.
- DeMarzo, P. (2004). The Pooling and Tranching of Securities: A Model of Informed Intermediation, Review of Financial Studies, 3(8), 100-134.
- FSD (2016). Financial Deepening and Economic Growth. Retrieved from https://www.fsdafrica.org/about-fsd-africa
- Garrett, T.J. (2014). Long-run evolution of the global economy: 1. Physical basis. Earth's Future. 2 (3): 127.
- Gberevbie, E. (2011). Leadership, the financial sector and development in Nigeria.

   Inkanyiso, Jnl Hum & Soc Sci, 3(2), 148-158.
- Ghildital, V., Pokhriyal, K., & Mohan, A. (2015). Impact of financial deepening on economic growth in East Africa perspective. Asian Development Policy Review, 3(3), 49-60.
- Gorton, G. & Pennacchi, G. (2014). Financial Intermediaries and Liquidity Creation, Journal of Finance, 45(1), 49-71.

- Helpman, E. (2004). The Mystery of Economic Growth. Harvard University Press.
- Jung, W. (2006). Financial Development and Economic Growth: International Evidence.

  Economic Development and Cultural Change, (34), 333-346.
- Kazeem, Y. (2017). Africa economic growth in 2016, retrieved from: https://qz.com/africa/994526/ethiopia-led-east-africas-economic-growth-in-2016/.
- Kothari, C.R. (2010). Research Methodology. Methods and Techniques. Delhi: New Age International Publishers.
- Kvochko, E. (2013). Ways in which technology can help the economy. Retrieved from: https://www.sciencedirect.com/science/article/pii/S1877042815036538.
- Lepenies, P. (2016). The Power of a Single Number: A Political History of GDP. New York: Columbia University Press.
- Mugenda, O.M., & Mugenda, A.G. (2010). Research Methods: Quantitative and Qualitative Approaches. Nairobi: Act press.
- Nyanaro, E. & Elly, D. (2017). The relationship between stock market performance and Economic growth in East Africa Community.
- Ochanda, M. (2014). Effect of financial deepening on growth of small and medium sized enterprises in Kenya. *International Journal of Sciences and Entrepreneurship*, 3(10), 191-208.
- Odhiambo, F.O. (2016). Effects of financial deepening on economic growth in Kenya, Unpublished Journal, University of Nairobi, Kenya.
- Ohwofasa, J. (2013). Financial deepening and economic growth in Nigeria, 1986-2011:

  An empirical investigation. *Journal of Economics and Development Studies*, 1(1), 24-42.
- Oldfield, G. (2010). Making Markets for Structured Mortgage Derivatives, Journal of Financial Economics, 57 (11), 445-471.
- Onwumere, J., Ibe, I.G., & Mounanu, Q. (2012). The impact of financial deepening on economic growth: Evidence from Nigeria. Research Journal of Finance and Accounting, 3(10), 44-64.
- Onwumere, U. (2012). The impacts of financial deepening on economic growth from Nigeria. Research journals of finance and accounting, 3(100), 64-71.

- Pettinger, T. (2017). Investments and economic growth. Available at: https://www.economicshelp.org
- Raghuram, G., & Luigi Z. (2003). The great reversals: the politics of financial development in the twentieth century (PDF). Journal of Financial Economics. 6(9), 5-50.
- Rahman, M., & Mustafa, M. (2015). Financial deepening and stock market returns.

  Journal of Economic and Sustainable Development, 12(8), 120-145.
- Sackey, F.G., & Nkurumah, E. M. (2012). Financial sector deepening and economic growth in Ghana. *Journal of Economic and Sustainable Development*, 3(8), 122-140.
- Saunders, M., Lewis, P., & Thornill, A. (2003). Reasearch methods for business students.

  London: Prentice Hall
- Schumpeter, J.A. (1911). The theory of economic development. Delhi: New Age International Publishers.
- Shaw, E. (2013). Financial Deepening in Economic Development. Oxford University Press.
- Wohlner, H. (2016). Economic indicators of Gross domestic product. Retrieved from: https://www.investopedia.com/university/releases/gdp.asp.
- World Bank (2009). Financial Deepening in Sub-Saharan Africa: Theory and Innovations. Industry and energy working papers, series no. 62.

### **APPENDICES**

# Appendix I: Data Collection Sheet

## Section 1: Measures of independent variables

YEAR	Rate of broad money in economy	Rate of credit	Rate of financial markets investment
2012			
2013			
2014			
2015			
2016			
2017			

# Section II: Measure of Economic Growth

Growth in GDP		Rate of financial
	Employment level	deepening
•	1.63	
		Employment level

### **Appendix II: Economic Growth Statistics**

# Africa's economic growth in 2016 was driven by East Africa

GDP growth rate

East Africa

North Africa

Southern Africa

Central Africa

0.8

West Africa 0.4

# Appendix II: GDP Growth in East Africa

KEN	UG	TZ	BUR	RWA	S.S	AVERAGE
4.55	2.6	5.14	4.44	8.76	(*)	5.09
5.69	4.4	7.26	4.53	4.68	12	5.31
5.33	4.7	6.97	4.74	7.0	*	5.75
5.54	5.32	7.05	-4.10	7.06	-	4.17
5.99	5.09	7.19	3.31	6.41	-	5.3
6.38	5.79	7.15	4.37	7.22	8.78	6.62
	5.69 5.33 5.54 5.99	4.55       2.6         5.69       4.4         5.33       4.7         5.54       5.32         5.99       5.09	4.55     2.6     5.14       5.69     4.4     7.26       5.33     4.7     6.97       5.54     5.32     7.05       5.99     5.09     7.19	4.55       2.6       5.14       4.44         5.69       4.4       7.26       4.53         5.33       4.7       6.97       4.74         5.54       5.32       7.05       -4.10         5.99       5.09       7.19       3.31	4.55       2.6       5.14       4.44       8.76         5.69       4.4       7.26       4.53       4.68         5.33       4.7       6.97       4.74       7.0         5.54       5.32       7.05       -4.10       7.06         5.99       5.09       7.19       3.31       6.41	4.55       2.6       5.14       4.44       8.76       -         5.69       4.4       7.26       4.53       4.68       -         5.33       4.7       6.97       4.74       7.0       -         5.54       5.32       7.05       -4.10       7.06       -         5.99       5.09       7.19       3.31       6.41       -

Plagiarism re	port		
ORIGINALITY REPORT			
13% SIMILARITY INDEX	12% INTERNET SOURCES	5% PUBLICATIONS	7% STUDENT PAPERS
PRIMARY SOURCES			
1 chss.uo	nbi.ac.ke		2%
ereposit	ory.uonbi.ac.ke		1%
3 Submitt Student Pap	ed to University o	of Nairobi	1%
Vuir.Vu.6			1%
5 uir.unisa Internet Sour			1%
Submitt Student Pap	ed to Kenyatta Ui	niversity	<1%
7 www.tar	ndfonline.com		.<1%

www.scribd.com

Submitted to Mary Immaculate College

Internet Source

Student Paper

<1<sub>%</sub>

10	Submitted to Maastricht Management Student Paper	School of	<1%
11	Submitted to Africa Naz	carene University	<1%
12	repository.out.ac.tz Internet Source		<1%
13	pdfs.semanticscholar.or	g	<1%
14	bristol.ac.uk Internet Source		<1%
15	Submitted to Universiti	Tenaga Nasional	<1%
16	era.library.ualberta.ca		<1%
17	Submitted to University Student Paper	of Leicester	<1%
18	Shu-Chen Chang. "The Financial Deepening and Taiwan", Advances in In Computing, 2012	d Economic Growth in	<1%
19	www.iprjb.org Internet Source	INIVERSITY OF NAIROBI LIBRAR'S EAST AFRICANA	<1%

20	Submitted to EDMC Student Paper	<1%
21	Submitted to University of Newcastle Student Paper	<1%
22	www.astrid-online.it Internet Source	<1%
23	iiste.org Internet Source	<1%
24	citeseerx.ist.psu.edu Internet Source	<1%
25	en.m.wikipedia.org	<1%
	Cubmitted to Indian Institute of Management	_
26	Submitted to Indian Institute of Management, Indore Student Paper	<1%
26	Indore	<1 <sub>%</sub>
<ul><li>26</li><li>27</li><li>28</li></ul>	Indore Student Paper  Submitted to 91111	<1 <sub>%</sub>

-			
The Property of the last of th	30	iproject.com.ng Internet Source	<1%
***************************************	31	Student Paper	<1%
	32	www.empirica.de Internet Source	<1%
	33	www.cppp.org Internet Source	<1%
	34	Ken, Shawa. "The finance-growth nexus: Evidence from Malawi", Journal of Economics and International Finance, 2014.  Publication	<1%
	35	"Global Financial Crisis and Its Ramifications on Capital Markets", Springer Nature, 2017	<1%
	36	www.slideshare.net Internet Source	<1%
	37	Submitted to Victoria University of Wellington Student Paper	<1%
	38	www.telkom.co.id Internet Source	<1%
	39	Submitted to University of East London Student Paper	<1%
		ijsse.org	

Internet Source

H	\$3	
48	Samuel Adams. "Chapter 8 Globalization and Economic Growth in Sub Sahara Africa", InTech, 2010 Publication	<1%
49	ir.knust.edu.gh Internet Source	<1%
50	arizona.openrepository.com Internet Source	<1%
51	nhf.euba.sk Internet Source	<1%
52	Tadeo Andrew Satta. "Scaling Up Small Firms' Access to Finance in Developing Economies: Evidence from Tanzania", Journal of Small Business & Entrepreneurship, 2012 Publication	<1%
53	Studies in Economics and Finance, Volume 32, Issue 3 (2015) Publication	<1%
54	erepository.uonbi.ac.ke:8080 Internet Source	<1%
55	www.virtusinterpress.org	<1%
56	Journal of Islamic Accounting and Business Research, Volume 6, Issue 2 (2015)	<1%

57	www.jiste.org	<1%
	Internet Source	1 70
58	cees.uonbi.ac.ke Internet Source	<1%
59	studenttheses.cbs.dk Internet Source	<1%
60	ipublishing.co.in Internet Source	<1%
61	www.emeraldinsight.com Internet Source	<1%
62	amsdottorato.unibo.it Internet Source	<1%
63	documents.mx Internet Source	<1%
64	Alajekwu, UB, and AA Achugbu. "The Role of Stock Market Development on Economic Growth in Nigeria: A Time Series Analysis", African Research Review, 2012.	<1%

Exclude quotes

Off

Exclude matches

Off

Exclude bibliography

On