

FINANCIAL DEEPENING AND ITS IMPLICATIONS ON SAVINGS AND INVESTMENTS IN KENYA

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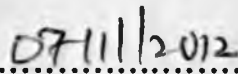
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**A Research Project Submitted in Partial Fulfillment of the Requirement
for the Degree of Master of Business Administration (MBA), University of
Nairobi**

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DECLARATION

I declare that this research project is my original work and has never been submitted to any other University for assessment or award of a degree.

Signature.......... Date..........

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This project has been submitted with my authority as the university supervisor.

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DEDICATION

I dedicate this project to my sisters, brothers and parents whom without their support I would not have managed to complete my studies.

ACKNOWLEDGEMENT

I sincerely acknowledge the God Almighty for all knowledge and wisdom belongs to Him. He listened to our prayers during the time I pursued my MBA. Were it not for His grace, nothing would have happened. I am deeply indebted to my Supervisor Dr. Josiah Aduda for his support and guidance during the time I was conducting my research. His input and direction greatly assisted me in coming up with this document.

ABSTRACT

The aim of this study was to establish the implications of financial deepening on savings and investments in Kenya. The study therefore adopted a causal research design in investigating the relationship between financial deepening and savings and investments in Kenya. The researcher made use of secondary data on financial deepening indicators, savings and investments from 2006-2011. A regression analysis was conducted in order to be able to establish relationship.

It can be concluded from study that there are both positive and negative correlations among the three variables namely: financial deepening; gross national savings and investments. The study confirms that there was a weak negative correlation between financial deepening indicators and gross national income. There was however a slightly stronger negative correlation between financial deepening and investments. This was an indication that when financial deepening is higher, investments tend to be lower and the reverse is also true. This is therefore a clear inverse relationship between the two independent variables and financial deepening.

The study recommends that the government should find ways of improving savings and investments since poor performance of either will affect the performance of the other. It also recommends that the government should establish proper financial and economic policies that can assist in improving financial deepening in the country. With such policies in place, savings and investments will then be able to sprout.

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LIST OF ABBREVIATIONS

- FD:** Financial Depth
- FFA:** Flow of funds accounts
- GDP:** Gross Domestic product
- GNP:** Gross National Product
- IMF:** International Monetary Fund
- NIPA:** National Income and Product Accounts
- OLS:** Ordinary least squares
- SNA:** System of National Accounts
- SPSS:** Statistical packages for social sciences
- SSA:** Sub-Saharan Africa

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CHAPTER ONE

INTRODUCTION

1.1 Background

Economic growth cannot be possible without the combined role of investment, labour and financial deepening. Jao (1976) puts it, this role of money and finance in economic development has been examined by economists from different angles and with various degrees of emphasis. In particular, the writings of Gurley and Shaw (1967) and Goldsmith (1969) stress the role of financial intermediation by both banks and non-banks in the saving-investment process, where money, whether defined narrowly or broadly, forms a part of a wide spectrum of financial assets in the portfolio of wealth-holders. Indeed, the economic growth and development of a country depends greatly on this role, the role of financial deepening.

Financial deepening plays a very important role in savings and investments. Goldsmith (1969) observes that the first way to achieve financial deepening is to raise the volume of investment and the second is to improve the volume and structure of savings. Fry (1988) agrees that these are the basic ways financial development can affect real growth of output. King and Levine (1993b) argue that financial development is likely to affect growth by improving the efficiency of investment through project selection, innovation and entrepreneurship growth.

1.1.1 Financial Deepening Concept

According to Ndebio (2004) financial deepening means an increase in the supply of financial assets in the economy. Therefore, the sum of all the measures of financial assets gives the approximate size of financial deepening. This implies that the widest range of assets such as broad money, liabilities of non-bank financial intermediaries, treasury bills, value of shares in the

stock market, money market funds, etc., will have to be included in the measure of financial deepening.

Financial depth is also understood to mean that: sectors and agents are able to use a range of financial markets for savings and investment decisions, including at long maturities; financial intermediaries and markets are able to deploy larger volumes of capital and handle larger turnover, without necessitating large corresponding movements in asset prices; and the financial sector can create a broad menu of assets for risk-sharing purposes. In essence, deep markets allow savers to invest in a broad range of quality investment and risk-sharing instruments and allow borrowers to likewise tap a broad range of financing and risk management instruments (Goswami and Sharma, 2011).

There are several advantages associated with financial deepening in an economy. It is argued that deepening confers important stability benefits to an economy, even though with limitations. For instance, if transaction volumes are increased, it can enhance the capacity to intermediate capital flows without large swings in asset prices and exchange rates. But it can also attract volatile capital inflows, complicating macroeconomic management (IMF, 2011a). Financial deepening can also lower the reliance on foreign savings and soothe balance sheet mismatches by increasing the scope to raise funds in domestic currencies and at longer maturities (World Bank, 2011). Gourinchas and Rey (2005) also argue that deepening provides alternative sources of funding during times of international stress thus limiting adverse spillovers, as evidenced in the global financial crisis of 2008. They further argue that deepening can occur too quickly, leading to credit booms and subsequent busts.

In the Keynesian theory, financial deepening occurs due to an expansion in government expenditure. In order to reach full employment, the government should inject money into the economy by increasing government expenditure. An increase in government expenditure increases aggregate demand and income, thereby raising demand for money. This disequilibrium is resolved by reducing private investments resulting from higher interest rates. Since higher interest rates lower private investment, an increase in government expenditure promotes investments and reduces private investments concurrently (Dornbusch and Fischer, 1978).

1.1.2 Savings Concept

In the System of National Accounts (SNA), saving is the residual item in the income and outlay accounts where it is obtained by subtracting current disbursements from current receipts. In the United States National Income and Product Accounts (NIPA) saving is similarly defined as the balance between current receipts and disbursements. However, there is some disagreement between the SNA and the NIPA as to what constitutes current (as opposed to capital) transactions, and as a result the two systems generate somewhat different measures of saving (Blades and Sturm, n.d.).

National saving is the difference between a nation's income and what it spends on the consumption of goods and services, and comprises household, corporate and government saving. The level of national saving has important implications for the economy; it provides a source of funds available for domestic investment, which in turn is a key driver of labour productivity and higher future living standards. In an economy open to trade and capital flows, the difference

between the level of investment and saving in the economy is equal to the current account balance (Cassidy and Bishop, 2012).

1.1.3 Investment Concept

The term ‘investment’ refers to depositing or spending money on some items that generate additional income either immediately or in the future. For example, if one deposits money in Public Provident Fund Account it will give some amount of return in the form of interest. The money in a provident fund is therefore an investment. Besides Public Provident Fund Account there are a number of other avenues in which one can invest money such treasury bills and capital investments.

Investment is crucial for economic growth. In the estimations this is measured by the investment output ratio. According to Keynesian interpretation real interest rate has positive as well as negative effect on investments. The positive impact comes from increased income due to higher government expenditure. The increase in aggregate demand increases interest rates as well as investment in the government sector. Government activities have a positive impact on investment while at the same time; they have a negative impact on private investments arising from interest rates (Hemachandra, n.d.).

1.1.3 Measures of Savings and Investments

Different countries use different measures of savings and investments. In the USA the macroeconomic measures most often cited are two components of the national income and product accounts (NIPA)-personal saving and gross private saving; these measures are derived from the current account as incomes less current expenditures. Alternatively, aggregate saving

can be measured from the capital account as the change in net wealth; such measures for nontangible types of saving are presented in the flow of funds accounts (FFAs) for various sectors. The real Gross Domestic product (GDP) can also be used to measure savings and investment. Others include adjusted real interest rates, stock market capitalization and rate of inflation.

1.2 Statement of the Problem

It is argued that higher government deficit leads to higher private savings. This is due to the fact that private savings are derived by subtracting government savings from domestic savings. Private savings are higher than domestic savings because of negative savings of the government. When the government borrows from domestic sources to fill the budget deficit, private savings are converted into investments in the public sector. Therefore, private savings will decline with budget deficit (Hemachandra, n.d.).

The relationship between these instruments and financial deepening has been studied empirically by McKinnon (1973) and Shaw (1973). THEY analyzed the benefits of Financial Repression and reducing its impact on the domestic financial system within developing countries. Their analyses are also referred to as the Complementarity Hypothesis. Their study concluded that alleviating financial restrictions in developing countries by permitting market forces to determine real interest rates can exert a positive effect on growth rates as interest rates rise toward their competitive market equilibrium. According to this tradition, artificial ceilings on interest rates reduce savings, capital accumulation, and discourage the efficient allocation of resources. McKinnon also pointed out that Financial Repression can lead to dualism in which firms that have access to subsidized funding will tend to choose relatively capital-intensive

technologies; whereas those not favored by policy will only be able to implement high-yield projects with short maturity.

Atukorala and Rajapathirana (1993) tested the McKinnon-Shaw hypotheses using Sri Lankan time series data on an annual basis for the period 1960-1987 with a dummy variable to represent policy changes in 1977. They confirmed the McKinnon-Shaw hypothesis that there is a positive relationship between interest rate and financial deepening.

Wijnbergen (1982, 1983) concludes that financial deepening is likely to reduce the rate of economic growth by reducing the total real supply of credit available to investors due to the effects on the curb market. Accordingly, an increase in interest rate will reduce credit available to the informal sector due to substitution of deposits in the organized sector. Further, they stated that reserve requirement in the banking sector may constraint credit supply and that this could not happen in the curb market, which is not subject to reserve requirements. Consequently, the curb market is able to provide more efficient financing. Hence, interest rates, bank credit and reserve requirement can be used to achieve financial deepening.

The above studies have featured financial deepening but few have considered the effects the same on savings and investments. The studies have also not featured developing countries in Sub Saharan Africa. This study addressed this gap by examining the effects of financial deepening on savings and investments.

1.3 Research objectives

- i. To establish the financial deepening indicators in Kenya
- ii. To establish the effects of financial deepening on savings and investment in Kenya

1.4 Value of the Study

This study will benefit the following groups of people upon completion. The government of Kenya will be able to understand more on the concept of financial deepening and the indicators of the same. The government will also be able to understand the effect of financial deepening on national savings and investment trends.

The findings of the study will also be important to financial analysts and economists both in Kenya and other countries who may be interested in understanding the effects of financial deepening on savings and investments in Kenya. The study will be able to give information on these effects and the indicators of financial deepening.

The general public will also find this study beneficial to them. They will gain an understanding of financial deepening in Kenya and also get to understand the situation in other countries from the reviewed literature. They will also be able to understand the possible effects of financial deepening on personal and national savings and investments.

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview of financial deepening

Van Wijnbergen (1983) asserts that that financial liberalization is likely to reduce the rate of economic growth by reducing the total real supply of credit available to investors due to the effects on the curb market. An increase in interest rate will reduce credit available to the informal sector due to substitution of deposits in the organized sector. They further stated that reserve requirement in the banking sector may constraint credit supply and that this could not happen in the curb market, which is not subject to reserve requirements. Consequently, the curb market is able to provide more efficient financing. Hence, interest rates, bank credit and reserve requirement can be used to achieve financial deepening.

As both Meltzer (1969) and Stein (1970) observe, only countries with high per capita incomes can experience rapid growth in financial assets. Such countries are none other than the developed countries. But what is crucial here is what constitutes the financial assets that wealth-holders must have as a result of high per capita income. Only when we can identify those financial assets will we be able to approximate financial deepening adequately. In short, and for our purpose, financial deepening simply means an increase in the supply of financial assets in the economy. Therefore, the sum of all the measures of financial assets gives us the approximate size of financial deepening. That means that the widest range of such assets as broad money, liabilities of non-bank financial intermediaries, treasury bills, value of shares in the stock market and money market funds will have to be included in the measure of financial deepening. In this case

therefore financial deepening can be measured using income per capita and the range of assets above mentioned.

2.2 Theories of financial deepening

2.2.1 Financial deepening theory

The financial deepening theory defines the positive role of the financial system on economic growth by the size of the sector's activity. An economy with more intermediary activity was assumed to be doing more generate efficient allocations. The size of the financial sector is usually measured by two basic quantitative indicators: "monetization ratio" and "intermediation ratio". The monetization ratio includes money-based indicators or liquid liabilities like broad money supply to GDP ratio. Intermediation ratio consists of indicators concerning to bank-based measures like bank credit to the private sector and capital market-based measures such as capitalization ratio of stock market. In our study, the level of intermediation to GDP, that is broad money supply to GDP ratio, was taken as a broad measure of the size of the financial sector (Karahan and Metehan, 2011).

According to Karahan and Metehan (2011) there are three basic views expressed for the Finance deepening. The first view is the "supply leading theory", which supports a positive impact of financial development on economic growth. Secondly, "demand following theory", which states that finance actually responses to changes that happen in the real sector or "where enterprise leads, finance flows". Finally, another approach somewhere between these two views is the one that claims mutual impact of finance and growth, which can be called "bidirectional causality theory".

2.2.2 Supply leading theory

The “supply-leading” theory posits a unidirectional causation that runs from financial deepening to economic growth implying that financial markets and institutions will increase the supply of financial services. This approach argues that the level of financial development is a good indicator of future economic growth. If an economy has not sufficient and sustained finance supply, it cannot form a new economic growth point and promote sustained and stable economic development. This view has been widely supported and explained theoretically by McKinnon (1973) and Shaw (1973).

2.2.3 Demand following theory

Proponents of the demand following theory posit a unidirectional causation from economic growth to financial development. This implies financial system passive response to economic growth meaning that the increasing demand for financial services might lead to the aggressive expansion of the financial system as the real sector of the economy grows. Arestis and Demetriades (1997) used time series analysis and Johansen co integration analysis for the United States and Germany. For United States there was insufficient evidence to claim a growth effect of financial development and the data also point to the direction that real GDP contributes to both banking system and stock market development.

2.2.4 Bi-directional causality theory

The bi-directional causality theory has been advocated by Altay and Atgür (2010). In this study, financial deepening and economic growth relationship using VAR model approach were investigated in Turkey over the period 1970-2006. In this context, an indicator of financial

deepening, the broad money supply to GNP ratio and economic growth constant prices, representing per capita GDP data has been used. Empirical findings indicated that there was a bidirectional Granger Causality relationship between financial deepening and economic growth in Turkey.

2.3 Empirical review on financial deepening

Nzota and Okereke (2009) conducted an empirical study on the financial deepening and economic development of Nigeria. The study examined financial deepening and economic development in Nigeria between 1986 and 2007. The central focus was that a high level of financial deepening is a necessary condition for accelerating growth in an economy. This is because of the central role of the financial system in mobilizing savings and allocating same for the development process. The study made use of secondary data, sourced for a period of 22 years. Nine explanatory variables were specified for the study based on theoretical underpinnings. The study sought to establish a relationship between the variables and financial deepening index. The study found that financial deepening index is low in Nigeria over the years. It was also found that the nine explanatory variables, as a whole were useful and had a statistical relationship with financial deepening. But four of the variables; lending rates, financial savings ratio, cheques/GDP ratio and the deposit money banks/GDP ratio had a significant relationship with financial deepening. The study therefore concluded that the financial system has not sustained an effective financial intermediation, especially credit allocation and a high level of monetization of the economy. Thus the regulatory framework should be restructured to ensure good risk management, corporate governance and stemming systemic crisis in the system.

Hemachandra (n.d.) carried out a study on financial deepening and its implications on savings and investments in Sri Lanka. The study investigated two things: the validity of financial deepening paradigms in the context of Sri Lanka and the effects of financial deepening on savings and investment that promote growth. The study used three paradigms i.e., Keynesian, McKinnon-Shaw and neo-structuralist in examining financial deepening. After examining the three versions the paper argued that an improved model which combines both Keynesian and McKinnon-Shaw versions produces a model more successful in explaining the characteristics of financial deepening in Sri Lanka. The effects of financial deepening on savings and investment were studied using this improved model. The results from the study show that there are several factors other than interest rate influencing financial deepening in Sri Lanka. The study confirms the neo-structuralists' hypothesis which claims that financial deepening has reduced provision of credit to the informal sector.

Ndebbio (2004) also conducted a study on financial deepening, economic growth and development: Evidence from selected sub-Saharan African countries (SSA). The study argues that stagnant growth of output of any country is often caused by shallow finance. Ndebbio asserts that a shallow financial depth (FD) means that the range of financial assets for that country is narrow. It is a scenario that goes far in explaining why most SSA countries have low or negative per capita growth rates. The study identifies the range of financial assets that can adequately approximate financial deepening, which simply means an increase in the supply of financial assets in the economy. Estimations depending on the two measures of FD and other explanatory variables of interest were done with ordinary least squares (OLS) multiple regression procedure. Three modelled equations, with justifications for each, were estimated and analyzed. A cross-country regression was used for 34 SSA countries. To even out year-to-year fluctuations as well

as reflect underlying structural changes, the variables were calculated on a decade average basis. The study concluded that SSA countries should strive hard to make real money balances grow, and that these countries should also come up with policies to improve financial development/intermediation. Given such factors as price stabilization, elimination of fiscal deficit and removal of various restrictions on financial institutions, real money balances could be made to grow. Financial intermediation/development could positively affect output growth if, among other suggested ways, the volume of investment is raised.

In India, Takeshi and Shigeyuki (2010) carried out an empirical review of how financial deepening has affected poverty reduction in India. The main purpose of the study was to establish whether financial deepening has assisted in poverty reduction. The study utilized data from 28 states and union territories. The study used models in which poverty ratio is explained by financial deepening, controlling for international openness, the rate of inflation and economic growth. Results achieved from the generalized method of moments (GMM) estimation model indicated that financial deepening and economic growth alleviate poverty while international openness and interest rates have a negative effect.

King and Levine (1993) empirically demonstrated that financial indicators strongly positively correlated with an economy's level of real production. They also argue that policies that alter the efficiency of financial intermediation exert a first-order influence on growth. Levine et. al. (2000), using a sample of 74 developed and less developed countries over the period 1960-1995, they found that the strong positive relationship between financial development and output growth. They interpreted these results as supportive of the supply leading hypothesis. Kwan et. al. (1998) analyzed the relationship between financial deepening and economic growth for

Hong Kong, South Korea and Taiwan. The findings suggested that financial deepening had a positive influence on output growth. From this point of view, they argue that a sound financial system is essential in the course of economic development.

Wadud (2005) researched the causality between the level of financial development and economic growth for India, Pakistan and Bangladesh. Paper employed a co integrated vector autoregressive model to assess the long-run relationship between the variables relating to bank-based, capital market based and economic growth. The findings indicate the causality between financial and economic growth nexus running from financial development to economic growth. Ndebbio (2004) examined the effect of financial deepening on growth in Sub-Saharan African countries. Financial deepening variable was measured by M2 as ratio to GDP and the growth rate of per capita real money balances. The study showed that financial sector development has spurred economic growth.

Vuranok (2009) asserts that the indicators of financial deepening differ from one economy to another. It is also possible that, different financial markets have different levels of financial deepening. Countries that have efficient financial systems have higher financial deepening ratios. The share of assets in Gross National Product (GNP) of developed countries financial markets is greater than the developing countries. The level of financial deepening depends on the ratio of total savings increase in a country. As a result of this increase in total savings in the country, financial savings will increase and the savings will be converted to financial assets with higher return. Moreover, funds will be transferred from risky and unorganized money markets to organized markets.

Townsend and Ueda (2009) examined financial deepening in Thailand between 1976-1996. In their study they propose a coherent unified approach to the study of the linkages among economic growth, financial structure, and inequality. They found out that financial deepening appears to lead to subsequent higher growth, and inequality to subsequent lower growth.

Takeshi and Hamori (2010) conducted a study to establish how financial deepening has affected poverty reduction in India. The study examined empirically whether financial deepening has contributed to poverty reduction in India. The study used data from 28 states and Union territories between 1973-2004. The study found that financial deepening and economic growth alleviate poverty. International openness and inflation was however found to have a negative impact on poverty reduction.

Ngugi et al. (2005) conducted a study on capital market, financial deepening and economic growth in Kenya. In their study they argue that the financial sector plays a crucial role in economic development. The depth of the financial sector has generally been found to promote economic growth. It has been observed that well functioning capital markets increases economic efficiency, investment and growth. They further assert that Kenya's capital market has been described as narrow and shallow. The stock market and private bond market have been raising less than 1% of growth financing. The vision 2030 development plan aims to achieve an annual economic growth of 10% with an investment rate of 30% to be financed mainly from mobilization of domestic resources.

According to FSD Kenya (2010) Kenyans are aware of financial concepts like budgeting and saving but appear to have a difficult time implementing this knowledge effectively, despite using a variety of formal and informal financial strategies. Over half the Kenyans sampled, particularly

rural women, say that they feel out of control of their finances. Kenyans are keen to save, however just over half of those interviewed stated that they save towards meeting day to day expenses rather than for long term needs. Fewer than half of adult Kenyans say that they have a financial asset that they can use in an emergency, and the poor are particularly ill prepared to deal with medical emergencies and bereavements. There does seem to be a gap in the capability of consumers to plan financially to cope with a crisis. Most respondents say that they would turn to family and friends to help them manage.

2.4 Chapter summary

There is evidence from the studies that have been reviewed that most of them have focused on the effect of financial deepening on economic growth and development. The studies have also focused on other countries that are mostly outside the African continent. There is a single study that evaluated financial deepening and savings and investments. This inadequacy in addressing financial deepening and savings and investments needs to be addressed. There is need therefore to find out how investments and savings are affected by the level of financial deepening.

The studies reviewed have also indicated that financial deepening can be able to reduce poverty in a country and lead to economic development. The depth of the financial sector has generally been found to promote economic growth. It has been observed that well functioning capital markets increases economic efficiency, investment and growth. It is also clear that financial deepening has a positive influence on output growth and that a sound financial system is essential in the course of economic development.

The level of savings and investments in an economy will also depend on financial deepening. Without financial deepening in an economy, it may be difficult to achieve meaningful levels of savings in an economy.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discussed the methodology that the researcher will employ in the study. The methodology will include the research design, population of the study, sample size and sampling design, data collection methods and data analysis techniques.

3.2 Research design

The study adopted a Causal research design in investigating the relationship between financial deepening and savings and investments in Kenya. The objective of causal research was to test hypotheses about cause-and-effect relationships among various variables. This study therefore sought to establish the effect of financial deepening on savings and investments in Kenya.

3.3 Target population

The target population in this study included all the secondary data on financial deepening indicators such as bank deposits, stock market turnover, Treasury bill rates, commercial banks loans and advances and market capitalization. It also included secondary data on gross national savings for private and government sectors as well as investments in form of direct investments and capital transfers.

3.4 Sample size

The secondary data for the above mentioned variables is expansive and the researcher applied purposeful or judgmental sampling in order to select the sample size for the study. The researcher selected secondary data for five years ranging from 2006 to 2010. The data for all the

five years since 2006 to 2010 was analyzed in order to find the relationship between financial deepening and savings and investments.

3.5 Data collection Methods

The study used secondary data. Secondary data included data collected from Kenya Bureau of Statistics and the Central Bank of Kenya. The Information was also be collected from United Nations Development Agency.

3.6 Data analysis

The study collected quantitative data. The descriptive data was analyzed using Statistical packages for social sciences (SPSS). The study involved correlation analysis to establish the relationship between the variables. The study used the following regression model to establish the relationship between financial deepening and savings and investments:

$$F_D = a + b_1 X_1 + b_2 X_2 + E$$

Where F_D = Financial deepening which was measured using the values of various financial deepening indicators in the Kenyan economy such as bank deposits, stock market turnover, Treasury bill rates, commercial banks loans and advances and market capitalization; A is the value of F_D when the values of X are held constant; X_1 = Savings which refers to gross national savings measured as a percentage of the Gross Domestic Product (GDP); X_2 = Investments Which were also measured using the direct and capital investments and other investments and E = Error term.

CHAPTER FOUR DATA ANALYSIS, FINDINGS AND INTERPRETATIONS

4.1 Introduction

This chapter presents the findings on financial deepening and its implications on savings and investments in Kenya. The study made use of secondary data obtained from the Kenya National bureau of statistics. The data obtained was for Gross National Savings for the year 2006 to 2011. The researcher also collected data on investments for the same period. The investment figure considered was of three types: Capital transfers; direct investment and other general investments. For financial deepening the researcher used figure for several financial deepening indicators such as Stock market turnover, market capitalization, licensed bank deposits, funds held in deposit institutions as well as loans issued by banks and deposit institutions.

In order to establish the implications of financial deepening on savings and investments, the researcher conducted a linear regression using the following model: $F_D = a + b_1x_1 + b_2x_2 + E$ where F_D represented financial deepening as the dependent variable, x_1 represented gross national savings, x_2 represented investments and E was the error term.

4.2 Correlations

The study sought to find out how the various variables were correlated. Table 4.1 below illustrates the correlation for the three various that were subjected to regression analysis. The correlations results have been interpreted and explained after Table 4.1.

Table 4.1: Correlations of Variables

Correlations				
		Financial deepening	Gross National income	Investments
Pearson Correlation	Financial deepening	1.000	-.335	-.688
	Gross National income	-.335	1.000	.730
	Investments	-.688	.730	1.000
Sig. (1-tailed)	Financial deepening	.	.291	.099
	Gross National income	.291	.	.081
	Investments	.099	.081	.
N	Financial deepening	5	5	5
	Gross National income	5	5	5
	Investments	5	5	5

It can be observed from the table of correlations above that there are both positive and negative correlations among the three variables namely: financial deepening; gross national savings and investments. The findings confirm that there was a weak negative correlation between financial deepening indicators and gross national income. There was however a slightly stronger negative correlation of -.688 between financial deepening and investments. This was an indication that when financial deepening is higher, investments tend to be lower and the reverse is also true. This is therefore a clear inverse relationship between the two independent variables and financial deepening.

There was also a strong positive correlation of .730 between investments and gross national income. This confirms that there is a direct relationship between investments and gross national income. This indicates that when the value of gross national income increases, the value of investments also increases though not with an equal proportion. The reverse is also true since the two independent variables positively impact on each other.

Table 4.2: Impact of Financial Deepening on Investments and Savings

In this section the researcher sought to find out the impact of financial deepening on investments and savings in Kenya. Table 4.2 below is a model summary of the predictors and dependent variables. It confirms the magnitude of the relationship between the variables.

Table 4.2: Model summary

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.730 ^a	.534	.067	180309.174

a. Predictors: (Constant), Investments, Gross National income

b. Dependent Variable: Financial deepening

It is evident from the model summary above that the R square value is .534, and this explains the variance of financial deepening that is explained by both investments and gross national savings. If .534 is converted into a percentage, then it implies that 53.4% of financial deepening is explained by both investments and gross national savings. This is therefore an indication that financial deepening is very important in determining the level of investments and gross national savings in Kenya. There is however 46.6% variance that has not been explained and this represents other variables that are outside the limitations of this study.

Table 4.3: Anova

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.44E+10	2	3.719E+10	1.144	.466 ^a
	Residual	6.50E+10	2	3.251E+10		
	Total	1.39E+11	4			

a. Predictors: (Constant), Investments, Gross National income

b. Dependent Variable: Financial deepening

From the Anova table above it is evident that the regression used an F test. The significance of the regression is .456 and this indicates that though the regression equation is significant there is still a large variance that is remaining unexplained. This variance of 46.6% therefore reduces the significance of our regression equation.

Table 4.4: Coefficients

Coefficients ^a									
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.			
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1238895	577245		2.146	.165			
	Gross National income	.169	.335	.357	.506	.663	-.335	.337	.244
	Investments	-2.872	2.138	-.949	-1.344	.311	-.688	-.689	-.649

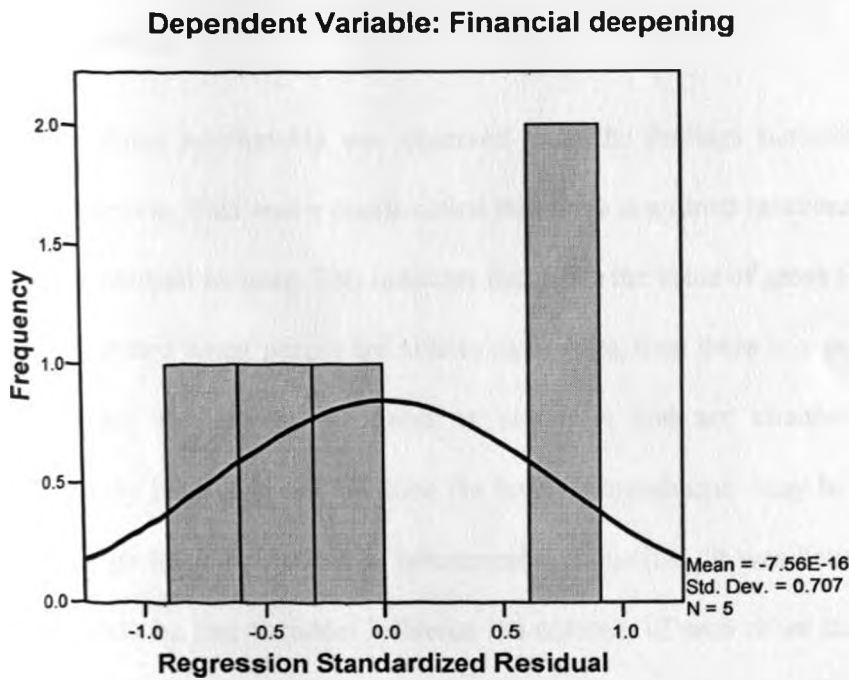
a. Dependent Variable: Financial deepening

From the table of coefficients above, there is a constant figure of 1,238,895. This figure is the value of financial deepening when investments and savings are held constant. This is an indication that even when there are no investments and savings, there will be financial deepening of the value mentioned above. Gross National income had a positive value of .169 whereas investments had a negative value of -2.872. Using the above mentioned figures from the table of

coefficients, the study was able to generate a linear regression equation that can explain the relationship between financial deepening on one hand and investments and gross national saving on the other. Based on the regression model earlier introduced in this chapter, the study therefore came up with the following mode: $F_D = 1,238,895 + .169x_1 - 2.872x_2 + 577245$. The value 577245 represents the error value that was extracted from the table of coefficients. The above model can be used to explain the relationship that exists between financial deepening and investments and savings.

Figure 4.1: Histogram

Histogram



The histogram above has a normal curve which explains the region where the model lies. The N value confirms the number of years that were involved in the study. The study compared figures

for 5 years from 2006 to 2011. The normal curve indicates the area within which the variables are located.

4.3 Summary and Interpretation of Findings

The main purpose of the study was to find out the implications financial deepening has on savings and investments in Kenya. A regression analysis was conducted with financial deepening being the dependent variable while gross national savings and investments were the independent variables. The data used was for five years covering 2006 to 2011. It also clear that the financial deepening indicators used are not uniform with those used in other studies. This is in agreement with Vuranok (2009) who asserts that the indicators of financial deepening differ from one economy to another. It is also possible that, different financial markets have different levels of financial deepening. Countries that have efficient financial systems have higher financial deepening ratios.

A strong direct relationship was observed from the findings between investments and gross national income. This was a confirmation that there is a direct relationship between investments and gross national income. This indicates that when the value of gross national income increases. This means that when people are able to save more, then there is a possibility that they can as well increse the amount of funds or resources that are channeled towards investmens. Alternatively if savings are low then the level of investments may be low since people do not have enough funds to channel to investment opportunities. It was hence evident from the study findings that the two variables influence the outcome of each other almost in equal proportions and are able to steer economic growth as confirmed by Ngugi et al. (2005) who argue that the financial sector plays a crucial role in economic development and that the depth of the financial

sector has generally been found to promote economic growth. They further state that well-functioning capital markets increases economic efficiency, investment and growth

From the regression analysis findings it was clear that financial deepening plays a very significant role in improving savings and investments in Kenya. The results indicated that investments and savings in Kenya account for 53.4% of financial deepening. These findings agree with FSD Kenya (2010) who states that Kenyans are aware of financial concepts like budgeting and saving but appear to have a difficult time implementing this knowledge effectively, despite using a variety of formal and informal financial strategies. This was an indication that without proper financial deepening, then investments and savings are likely to suffer or plummet.

When the indicators of financial deepening such as stock market prices, deposits in banking institutions, lending rates and interest rates are favorable, then the level of investments and savings are likely to improve in Kenya. The study also came up with an equation that can assist explain the relationship between the indicators of financial deepening on one hand and investments and savings on the other. This equation was extracted by the researcher from the model summary and table of coefficients. This model is $F_D = 1,238,895 + .169x_1 - 2.872x_2 + 577,245$. The model has a constant which is the financial deepening value when savings and investments are held constant and the weights attached to investments and savings.

It is clear from the study that there were both positive and negative correlations among the dependent and independent variables namely: financial deepening; gross national savings and investments. For instance it was observed that there was weak negative correlation between financial deepening indicators and gross national income. This was an indication that it was a

weak inverse relationship that exists between the financial deepening indicators and gross national income. There was however a slightly stronger negative correlation between financial deepening and investments. This illustrates an inverse relationship between the two variables. This therefore means that when financial deepening is higher, investments tend to be lower and the opposite can also be true.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This chapter presents the summary of the research on financial deepening and its implications on savings and investments in Kenya. The chapter also includes a conclusion on the findings of this study, the recommendations made by the researcher based on the findings from the study and suggestions for further research.

The study made use of secondary data on financial deepening and savings and investments. The data was for the year 2006 to 2011. A regression analysis was conducted to assist the researcher to establish the relationship between financial deepening and investments and savings in Kenya. It was confirmed that there is a strong relationship between financial deepening on one hand and savings and investments on the other. Financial deepening determines the level of investments and savings in a given economy. It is therefore clear that when the indicators of financial deepening such as stock market prices, deposits in banking institutions, lending rates and interest rates are favorable, then the level of investments and savings are likely to improve in Kenya

The study also found out that a positive or direct correlation exists between savings and investments in Kenya. The implication for this is that if there are high savings in the country, then the investments will also go up. The reverse will also be true since investments will also plummet if savings decline.

5.2 Conclusion

This study concludes that whereas there exists a negative correlation between the indicators of financial deepening and savings and investments. There was found to be a strong positive correlation between savings and investments. The study established from the regression results that when there is proper financial deepening, the level of savings and investments in Kenya also improve. If interest rates are not favorable, if the stock market is not doing well, if deposits in banking institutions are not growing, then there will be slow growth and improvement in savings and investments.

Gross national savings and investments in Kenya will not grow if there is no proper financial deepening. When the indicators of financial deepening are favorable, then it is certain that savings and investments will grow. Financial deepening enables people to save more thus increasing the probability that they can as well increase the amount of funds or resources that are channeled towards investments. Alternatively if savings are low then the level of investments may be low since people do not have enough funds to channel to investment opportunities.

There was however a slightly stronger negative correlation between financial deepening and investments. This illustrates an inverse relationship between the two variables. This therefore means that when financial deepening is higher, investments tend to be lower. The investments referred to here are the direct investments which showed an inverse relationship with financial deepening. With favourable financial deepening in an economy, money will be held in stocks, bills and bank deposits. This will therefore reduce the money that is channelled to investments.

5.3 Policy Recommendations

The study established that there is a positive correlation between savings and investments. The government should find ways of improving savings and investments since poor performance of either will affect the performance of the other. If gross national savings are not improved, then the proportion of savings that is used for investments will drastically reduce. The government should therefore come up with fiscal and monetary policies that will encourage and nurture financial deepening in the country so that savings and investments can thrive.

Financial deepening was found to be important of very significant in improving the level of savings and investments in Kenya. The government should establish proper financial and economic policies that can assist in improving financial deepening in the country. With such policies in place, savings and investments will then be able to sprout.

It is also clear that financial deepening is very significant in economic development of a country. When there is favorable financial deepening, the economy is likely to improve. The government needs to enact laws that will favor the improvement of financial deepening indicators such as the stock market, the banking industry, interest rates and deposits in banking institutions. If interest rates are low, then people can easily access credit which can be utilized for investments. High interest rates for deposits are also likely to encourage people to save.

4 Limitations of the Study

The findings of this study are only directly applicable to Kenya. The financial deepening indicators for Kenya are not the same as those for other countries hence the reason why the findings may not be directly applicable to a situation in another country.

Time and resources were not enough hence the researcher could not be able to conduct a research that could be able to cover many years. This is the reason why the researcher chose to do a study for only 5 years between 2006 to 2011. A wider coverage would easily give a better understanding on the trend in savings, investments and financial deepening

It may be quite challenging to compare the findings of this study with another country since financial deepening used for one country may not be the same that are prevalent in another. In comparison therefore one needs to be cautious.

The findings may not be very conclusive since they cover a small duration of 5 years. A clear picture of the same can only be possible if the statistics used can cover a longer duration as far as the Kenyan economy is concerned.

5.5 Suggestions for Further Research

There is need to carry out a comparative study with another country in order to find out the similarities and differences that exist as far as financial deepening and savings and investments are concerned.

A study needs to be carried out to explore the trend in terms of financial deepening and investments and savings over a longer duration of time which should exceed the five years covered in this study.

A study can also be carried out to establish the link between financial deepening and political governance. This will shed more light on whether financial deepening changes with change in governance.

A study can also be carried out to establish the effect of financial deepening on the economic development of Kenya. This should focus on the role the same plays in poverty reduction in the country.

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