THE IMPACT OF FINANCIAL SECTOR DEEPENING ON ECONOMIC GROWTH IN KENYA

Moses Sindani

Master of Business Administration Student, University of Nairobi, Kenya

Citation: Buchichi, A. N. (2013). The impact of financial sector deepening on economic growth in Kenya. *International Journal of Social Sciences and Project Planning Management, 1* (1), 41-64.

ABSTRACT

The depth of the financial sector has generally been found to promote economic growth by increasing economic efficiency, investment and growth. Financial sector deepening enable the financial intermediaries perform their functions of mobilizing, pooling and channeling domestic savings into productive capital more effectively thereby contributing to economic growth of a country. This study set to establish the impact of financial sector deepening on economic development in Kenya. The study adopted a Quantitative comparative design. The target population for this study was: 44 banking institutions (43 commercial banks and 1 mortgage finance company - MFC), operating in Kenya as at 31st December 2011. The study used secondary data collected from the Central Bank of Kenya and Deloite reports. Since the data used was secondary data, the study conducted a census of the Banking sector where all the 44 commercial banks were included. The use of secondary data was justified on the basis that some of these sources have information that was very pivotal to this study and has been vetted and accepted. This study established that the financial sector was stable during the study period as witnessed by the stable number of banking institutions following stringent regulations by the Central bank of Kenya which had reduced the frequency of commercial banks becoming bankruptcy. During the period of the study (2007-2011), financial sector deepening was high as the commercial banks strived to leverage their operations through adoption of new technologies including automation of bank process and adoption of Automated Teller Machines as opposed to offering their services only through physical brick and mortar branches. The economic growth started at a high of 7.1 then fluctuated to a low of 1.5 in 2008. This study therefore recommends that the Government of Kenya ensure efficiency in its regulation and supervision of all financial institutions in allowing more private banks and non-bank financial institutions to broaden their financial market to accelerate financial development and improve the financial structure that leads to increase economic growth of Kenya. The study further recommends that the Government through its relevant offices promote the development of Microfinance institutions as they play a key role in deepening financial services in Kenya and in the alleviation of poverty especially in the rural areas.

Key Words: *financial sector deepening, economic growth, Kenya*

INTRODUCTION

Financial sector plays a crucial role in economic development of any country. The depth of the financial sector has generally been found to promote economic growth by increasing economic efficiency, investment and growth (Ngugi, Amanja, and Maana, 2005). Financial intermediaries play an important role in an economy by mobilizing, pooling and channeling domestic savings into productive capital thereby contributing to economic growth of a country. As such, a competitive and well-developed banking sector is an important contributor to economic growth. In a competitive banking sector, borrowing rates are higher and lending rates are lower, so that the transformation of household savings into productive capital investment is faster (Valverde, Humphrey and Fernandez (2003).

Among the strongest elements of the modern economists' principles is that financial sector development has a significant impact on economic growth. Financial sector is defined as the mechanism that transfers resources from some economic agents; spending less than economic growth refers to the increase of goods and services produces in an economy. According to Ndebbio (2004), economic growth cannot be possible without the combined role of investment, labor and financial deepening. Ndebbio (2004) puts it that this role of money and finance in economic development has been examined by economists from different angles and with various degrees of emphasis. Ndebbio (2004) quoting 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.

The Concept of Financial Deepening

Financial deepening refers to the improvement or increase in the pool of financial services that are tailored to all the levels in the society. It also refers to the increase in the ratio of money supply to GDP/Other price index which ultimately postulates that the more liquid money is available in the economy, the more opportunities exist in that economy for continued and sustainable growth. It basically supports the view of: Development in Financial sectors leads to development of the economy as a whole (Shaw, 1973).

Conceptually, financial depth is often 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 (access); financial intermediaries and markets are able to deploy larger volumes of capital and handle larger turnover, without necessitating large corresponding movements in asset prices (market liquidity); and the financial sector can create a broad menu of assets for risk-sharing purposes (hedging or diversification). In other words, 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).

Financial deepening is widely believed to confer important stability benefits to an economy, though with limitations. For instance, by increasing transaction volumes, financial deepening 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 sector deepening can lower the reliance on foreign savings and ease balance sheet mismatches by increasing the scope to raise funds in domestic currencies and at longer maturities (World Bank, 2011; IMF, World Bank, and FSB, forthcoming). Deeper markets can provide alternative sources of funding during times of international stress, limiting adverse spillovers, as evidenced in the global crisis. At the same time though, deepening can occur too quickly, leading to credit booms and subsequent busts. It has also been argued that financial deepening can increase the capacity of Emerging Markets to generate their own ―safe or reserve assets, rather than to rely predominantly on U.S. treasuries (Caballero, Farhi, and Gourinchas, 2008). At the systemic level, all these factors, if properly managed, can ease the need to accumulate foreign assets, thus promoting global adjustment.

The Concept of Economic Growth

Economic growth is defined as 'a rise in the total output (goods or services) produced by a country'. It is an increase in the capacity of an economy to produce goods and services, compared from one period of time to another. Economic growth occurs whenever people take resources and rearrange them in ways that are more valuable. Economic growth refers only to the quantity of goods and services produced; it says nothing about the way in which they are produced. Economic growth can be measured in nominal terms, which include inflation, or in real terms, which are adjusted for inflation i.e. by the percent rate of increase in the gross domestic product (GDP). Economic growth measures growth in monetary terms and looks at no other aspects of development (Ayres, Robert, Warr, and Benjamin, 2006).

Economic growth can be either positive or negative. Negative growth can be referred to by saying that the economy is shrinking. Negative growth is associated with economic recession and economic depression. Gross national product (GNP) is sometimes used as an alternative measure to gross domestic product. In order to compare multiple countries, the statistics may be quoted in a single currency, based on either prevailing exchange rates or purchasing power parity. Then, in order to compare countries of different population sizes, the per capita figure is quoted. To compensate for changes in the value of money (inflation or deflation) the GDP or GNP is usually given in "real" or inflation adjusted, terms rather than the actual money figure compiled in a given year, which is called the nominal or current figure (Ayres, Robert, Warr, and Benjamin 2006).

The Relationship between Financial Sector Deepening and Economic Growth

The relationship between financial development and economic growth has been examined extensively in the literature, but with conflicting results. For a long time the conventional

wisdom has been in favour of the supply-leading response, where the development of the financial sector is expected to precede the development of the real sector. There are three views existing regarding the relationship between financial development and economic growth (Odhiambo, 2011). The first view argues that financial development is important and leads to economic growth which is the supply- leading response. This view has is widely supported by McKinnon (1973), Shaw (1973), and King and Levine (1993), among others. Odhiambo (2011) further indicates that the empirical work, which is associated with the supply-leading response in developing countries, includes studies by Jung (1986), Spears (1992), King and Levine (1993), De Gregoria and Guidotti (1995), Odedokun (1996), Ahmed and Ansari (1998), Darrat (1999), Ghali (1999), Xu (2000), Jalilian and Kirkpatrick (2002), Calderon and Liu (2003), Bhattacharya and Sivasubramanian (2003), Suleiman and Abu-Qaun (2008) amongst others. The second view maintains that it is economic growth that leads to the development of the financial sector (demand-following response). The empirical work, which is associated with this view includes studies by Waqabaca (2004) and Odhiambo (2004), amongst others. Despite the arguments in favour of the supply-leading response and demand-following response, the empirical results from a number of studies have shown that financial development and economic growth can Granger-cause one another. These include studies such as Wood (1993), Demetriades and Hussein (1996), Luintel and Khan (1999), Al-Yousif (2002) and Odhiambo (2005), among others.

Financial Sector Deepening and Economic Growth in Kenya

The Kenyan economy enjoyed a remarkable improvement in its performance between 2002 and 2007, achieving high rates of GDP growth that culminated at 6.9% growth in 2007(World bank 2010). This successful period followed two decades of erratic performance and stagnation of the economy. The projected growth of 2008 (KIPPRA, 2009) had been even more impressive at 7.8%. This figure was not achieved, however, due mainly to the violence that followed the presidential elections of December 2007. Despite this setback, the economy is now slowly regaining macroeconomic stability, though with much reduced GDP growth (only 3% in 2008) (World bank, 2009) and continuing political uncertainty in the context of the uneasy coalition government. Growth in the period since 2002 has been achieved largely through increased domestic demand. Growth in exports, however, has continued to be slow as a result of a lack of diversification, low value exports and supply-side constraints related to the investment climate. High food, energy and transport costs have also contributed to higher rates of inflation since 2005: inflation reached 27% in 2008 (World Bank, 2009).

The Kenyan financial sector is composed of the banking sector, microfinance institutions (MFIs), Savings and Credit Cooperatives (SACCOs), money transfer services and the informal financial services sector. The regulator is the Central Bank of Kenya (CBK). There is a widespread consensus that there is still limited access to financial services for the majority of Kenyans, though in reality the situation has improved markedly in recent years.

STATEMENT OF THE PROBLEM

The relationship between financial development and economic growth has recently received emphasis from numerous theoretical and empirical studies in the last decades. Three groups exist in the literature regarding the causal relationship between financial development and economic growth (Odhiambo, 2004). Kenya has realized the importance of financial sector deepening on economic growth. This has been witnessed in the Central bank of Kenya's effort to promote financial sector development by seeking alternative methods like the agency and mobile banking.

Kenya's banking sector is comprised of 44 banking institutions (43 commercial banks and 1 mortgage finance company - MFC), 4 representative offices of foreign banks, 6 Deposit-Taking Microfinance Institutions (DTMs), 118 Forex Bureaus and 2 Credit Reference Bureaus (CRBs). Efforts to increase financial inclusion through the Microfinance Act of 2006, which regulates deposit-taking MFIs, and government support for mobile banking, has contributed to 40.5 percent of the adult population in Kenya gaining access to "formal" financial services (CBK, 2012). Developments within the banking sector are strongly guided by the medium-term objectives of the financial sector reform and development strategy embedded in the economic development blueprint, Vision 2030. In the year 2011, access to financial services continued to be enhanced, spurred by increased innovation in the delivery of financial products and services throughout the country. These developments have been a catalyst to fulfilling the goals of building an all-inclusive and efficient financial system. Despite 2011 being a year of accelerated inflation arising from high food and fuel costs, the total population with access to financial services, which is a key indicator of financial sector growth and development, increased. This is attributable to cost effective and efficient innovations within the banking sector, particularly through the mobile money revolution and the adoption of branchless banking models like the agency banking model (BSD, 2011)

Musau (2002) researched the impact of financial liberalization on selected financial sector development indicators in Kenya. Musau established that financial liberalization increased the penetration level of financial services in Kenya. Of the selected financial sector developments, Microfinance institutions played a major role in promoting financial sector development. Kioi (2003) studied the relationship between foreign direct investment and economic growth in Kenya, Uganda and Tanzania where he established that foreign direct investment contributed immensely to the economic growth of the concerned countries in several ways including stabilization of local currency and inflation. Odhiambo (2008) did a study on financial depth, savings and economic growth in Kenya; he sought to establish a dynamic casual relationship. From the above studies, and following the changing macroeconomic environment in Kenya, this study sought to fill the research gap on the relationship between financial sector deepening and economic growth using data from the Central bank of Kenya. To achieve this, this study sought to answer the following research question: How does financial sector deepening affect economic growth of Kenya?

OBJECTIVE OF THE STUDY

The objective of this study was to establish the impact of financial sector deepening on economic development in Kenya.

LITERATURE REVIEW

Financial Intermediation Theory

Financial intermediation is a process which involves surplus units depositing funds with financial institutions who then lend to deficit units. Bisignano (1998) and Leland and Pyle (1977) identify that financial intermediaries can be distinguished by four criteria: first their main categories of liabilities (deposits) are specified for a fixed sum which is not related to the performance of a portfolio. Second the deposits are typically short-term and of a much shorter term than their assets. Third a high proportion of their liabilities are chequeable (can be withdrawn on demand).And fourth their liabilities and assets are largely not transferable. The most important contribution of intermediaries is a steady flow of funds from surplus to deficit units.

According to Scholtens and van Wensveen (2003), the role of the financial intermediary is essentially seen as that of creating specialized financial commodities. These are created whenever an intermediary finds that it can sell them for prices which are expected to cover all costs of their production, both direct costs and opportunity costs. Financial intermediaries exist due to market imperfections. As such, in a ‘perfect’ market situation, with no transaction or information costs, financial intermediaries would not exist. Numerous markets are characterized by informational differences between buyers and sellers. In financial markets, information asymmetries are particularly pronounced. Borrowers typically know their collateral, industriousness, and moral integrity better than do lenders. On the other hand, entrepreneurs possess inside information about their own projects for which they seek financing (Leland and Pyle, 1977). Moral hazard hampers the transfer of information between market participants, which is an important factor for projects of good quality to be financed

The Theory of Delegated Monitoring of Borrowers

This is one of the most influential in the literature on the existence of banks. Defined broadly, ‘monitoring’ of a borrower by a bank refers to information collection before and after a loan is granted, including screening of loan applications, examining the borrower’s ongoing creditworthiness and ensuring that the borrower adheres to the terms of the contract. A bank often has privileged information in this process if it operates the client’s current account and can observe the flows of income and expenditure. This is most relevant in the case of small and medium enterprises and is linked to banks’ role in the payments system (Drzik, 1995).

Financial efficiency in the banking sector has been highlighted as a requirement for economic growth. In view of this reality it is therefore understandable why much emphasis is placed on

continued research on this area. This is very important especially today since banking industry has changed to a highly competitive environment. Financial deregulation and increased globalization have brought new competition to domestic banking and allowed considerable diversification by banks, insurance companies and co-operatives (Altman, 1993). They argue that information technology has provided many opportunities for creating new financial products and distribution methods, for example Telephone banking and Computer Banking, and reduced the need for investment in conventional branch infrastructure.

Modern Economics Theory

Modern economics has gone far in discovering the various pathways through which millions of expectations of, and decisions by, individuals can give rise to emergent features of communities and societies (e.g., rate of inflation, productivity gains, level of national income, prices, stocks of various types of capital, cultural values, and social norms). Two factors make economic theory particularly difficult (Hannagan, 1998). First, individual decisions at any moment are themselves influenced by these emergent features, by past decisions (e.g., learning, practice, and habit), and by future expectations. Second, the emergent features that can be well handled by existing economic theory and policy concern only fast-moving variables. The more slowly emergent properties that affect attitudes, culture, and institutional arrangements are recognized, but are poorly incorporated.

According to William (1991), economists know that success in achieving financial return from fast dynamics leads to slowly emergent, nearly hidden, changes in deeper and slower structures, changes that can ultimately trigger sudden crisis and surprise. But the complexities that arise are such that most modern economists are frustrated in their attempts to understand the interactions between fast- and slow-moving emergent features.

Measures of Economic Growth

Just like a firm keeps record of the progress it makes over the years, an economy maintains its record of performance by the national income accounting. It is important for an economist to know how the economy is doing, because several policy steps depend upon the economic performance. Measuring economic growth involves quantifying the increase in welfare and to endowing with numerical precision the large-scale economic and social changes taking place in an economy. Economic growth is the sustained increase in welfare of an economy together with the ongoing changes in that economy's industrial structure; public health, literacy, and demography; and distribution of income. In the long run, as this economic transformation evolves so do social, political, and cultural norms. Societies change profoundly and multidimensional, as economic performance improves.

There are several measures instituted and used to measure economic growth including: National income levels, physical capital allocation, Gross Domestic Products (GDP) of the nation among

others. Gross Domestic Product is designed to measure the value of production of those activities that fall within the boundary of the national accounts system. GDP estimates are subject to uncertainties and to difficult measurement problems in some areas such as those in measuring production by the government sector (OECD, 2006). Over and above these technical problems, however, is the question as to whether, of all the data that can be extracted from the System of National Accounts, GDP is best suited to the task of measuring the total value of the economic resources that affect well-being. This section examines alternative national-accounts-based measures of economic resources, notably national income and household consumption, and assesses if they paint a different picture of the evolution and cross-country comparison than that based on GDP.

Another measure of economic growth as the Gross Value Added (GVA) per head which is typically used for considering performance levels within a country. Although there are some criticisms of this metric it has the advantage that it provides a full picture of performance implicitly including both productivity and employment effects.

Measures of financial deepening

Since financial deepening (FD) means an increase in the supply of financial assets in the economy, it is important to develop some measures of the widest range of financial assets, including money. This will involve identifying these financial assets, determining their measures and summing them up. The sum total of all the financial assets is one broad measure that represents financial deepening includes the growth rate of per capita real money balances (Greenwood and Jovanovic, 1990). The range of financial assets to be considered in this study includes broad money (M2), liabilities of non-bank financial assets (NB), treasury bills (TB), value of shares (VS) and money market fund (MMF). One growth study particularly related to financial depth was that of Ayres, Robert and Warr (2006), in which the rate of output growth was treated as dependent on certain monetary variables such as the rate of money growth and the degree of intermediation. The sum of these financial assets can thus approximate one of the widest measures of financial deepening.

Automated Teller Machines

Besides computerized bank accounting systems, specialized transaction technologies are greatly reducing transactions costs hence promoting the depth of financial services in an economy. ATM equipment and "smart" cards ("smartcards") are the leading edge of this movement and positively impacting on the economic development. ATMs are unstaffed neighborhood outlets where deposits and withdrawals can be made cost effectively for the poor and improved convenience for the middle class and upper class in society (Greenwood and Jovanovic, 1990). This in turn is making it possible for even conservative and highly regulated commercial banks to extend services to townships and slums. For example, in South Africa, the commercial banking network has branches down to most towns and larger villages (Aydoğan and Akdeniz,

2000). The expansion of ATM technology in urban areas and in some rural areas has led to the development of new services to all users including the poor and to considerably reducing costs of existing services such as lending.

Employment Levels

Employment is a measure of financial sector deepening because at the financial sector expands, it will need to hire more and more personnel. Unemployment (or joblessness) occurs when people are without work and actively seeking work (Jeong and Townsend, 2005). The unemployment rate is a measure of the prevalence of unemployment and it is calculated as a percentage by dividing the number of unemployed individuals by all individuals currently in the labor force. During periods of recession, an economy usually experiences a relatively high unemployment rate. The unemployment rate is relevant to both the economic and social aspects of work (Aydoğan and Akdeniz, 2000). The unemployment rate is the most widely used measure of under utilised labour resources in the economy and is sensitive to changes in economic conditions. As such, employment levels are important parameters in measuring the levels of financial depth.

Total Deposits in the Banking Industry

Current financial intermediation theory builds on the notion that intermediaries serve to reduce transaction costs and informational asymmetries. As developments in information technology, deregulation, deepening of financial markets, etc. tend to reduce transaction costs and informational asymmetries, financial intermediation theory shall come to the conclusion that intermediation becomes useless. According to Aydoğan and Akdeniz (2000), in the 1960s, Goldsmith (1969) gave stylized facts on financial structure and economic development. He found that in the course of economic development, a country's financial system grows more rapidly than national wealth. It appeared that the main determinant of the relative size of a country's financial system was the separation of the functions of saving and investing among different economic units. Advances in financial sector deepening leads to an increase in the levels of deposits in commercial banks (Greenwood and Jovanovic, 1990). In turn, the commercial banks spur economic development by extending credit to deficit units in the process of money creation. Financial intermediation can affect economic growth by acting on the saving rate, on the fraction of saving channeled to investment or on the social marginal productivity of investment. In general, financial development will be positive for economic growth (Aydoğan and Akdeniz, 2000).

Empirical Review

Hasan and Wachtel (2007) with the dependent variable being growth, they considered it as the growth rate of real annual per capita Gross Domestic Product (GDP) in the province. GDP and other macroeconomic data for the provinces were collected from China Economic Information

Network Database. The original sources of these data were the annual issues of the Statistics Yearbook of China. Their major challenge was to find data that adequately measured or proxy the institutional developments. In some instances direct measures of institutional development can be obtained while in other instances the available data provide only imperfect proxies. They began with the financial institutions for which direct measures were obtainable and widely used in growth studies. They then proceeded to the legal and political institutions for which proxies provided indirect but adequate representations. In their conclusion, Hasan and Wachtel (2007) established that taken as a whole, their evidence suggested that institutional development was strongly associated with economic growth, based on the 31 Chinese province data for period 1986-2002. More specifically, those regions with more rule of law, more property rights awareness and protections, more innovation-friendly environment, more open environment for private and foreign investors, and more investment opportunities and more complete market institutions were associated with stronger growth.

Rousseau and Wachtel (2007) study included cross sectional and panel data on financial and macroeconomic indicators for 84 countries over the period from 1960 to 2003. To ensure comparability with King and Levine’s original study and others, they use three familiar measures of financial development, namely the ratios to GDP of liquid liabilities (M3), liquid liabilities less narrow money (M3 less M1), and credit allocated to the private sector. M3 as a percent of GDP has become a standard measure of financial depth and an indicator of the overall size of financial intermediary activity in cross-country studies. M3 less M1 removes the pure transactions asset and the credit measure isolates intermediation to the private sector from credit allocated to government or state enterprises.

King and Levine’s (1993) version of the Barro growth regression, and the starting point for their analysis, took the form:

$$Y_{it} = \alpha_o + \alpha F_{it} + \beta X_{it} + U_{it}$$

Where; Y_{it} is the growth rate of real per capita GDP, F_{it} was a measure of financial sector development, and X_{it} is a set of baseline explanatory variables that had been shown empirically to be robust determinants of growth. The X variables included the log of initial real per capita GDP, which should have capture the tendency for growth rates to converge across countries and over time, and the log of the initial secondary school enrollment rate, which should reflect the extent of investment in human capital. They also run regressions that include the ratio of trade (i.e., imports plus exports) to GDP and the ratio of government final consumption to GDP as additional explanatory variables. In their findings, while by no means arguing that financial factors were no longer important for economic development, they served simply as a reminder that the link between finance and growth was more complex than the simple relationships suggest. It appeared that deepening needed to be accompanied by appropriate policies for financial sector reform and regulation (Rousseau and Wachtel, 2007). Thus, the systematic study

of the financial development experiences of individual countries becomes all the more critical as the next step in furthering their understanding of the nexus.

Ngugi, Amanja and Maana (2009) argue that when the financial market development offers an opportunity to the investors to diversify their financial asset basket and the firms an opportunity to diversify the sourcing of finance. Their analysis shows a positive correlation between capital market, and the financial access and depth factors. The same is indicated by the various components of capital markets. For example, the measure of capital development is highly correlated with the depth of the financial sector than the access factor. While this is more pronounced for the stock market, it is almost balanced for the bonds market. With access variables, capital markets are highly correlated with the financial market sophistication. With the depth measure the capital market is highly related to the private sector debt and also private sector credit. Stock market capitalization is negatively correlated with the public

According to Ngugi, Amanja and Maana (2009) financial sector development is assumed to affect growth through the amount of savings put in investment (*ds*) and the technological development (*g*). King and Levine (1993) and Beck *et al.* (2000) suggest that financial systems are important for productivity, growth and development. Well functioning institutions and markets augment technological innovation, capital accumulation and therefore economic growth (King and Levine, 1993). Well- functioning financial markets lower the costs of transaction increasing the amount of savings put into investment. They also allows for capital to be allocated to projects that yield the highest returns and therefore enhance economic growth rates.

According to Gurley and Shaw (1955) cited in Odhiambo (2009), economic development is hindered if self-finance and direct finance are accessible but financial intermediaries are not involved. Financial intermediaries, therefore, aid in the flow of loanable funds by accumulating and transmitting financial assets from surplus spending units (savers) to deficit units (investors). Money markets are financial markets for transactions in wholesale short-term loans and deposits for trading short-term financial instruments. These short-term financial instruments have a maturity of up to 12 months with the bulk of the transactions being for one day to three months (King and Levine, 1993). Money markets exist to meet the needs of financial institutions and companies seeking short term funding or with a short-term surplus of funds to lend or invest for a limited period of time.

An active money market is the precursor to an active secondary bonds market. Money markets are essential for conducting indirect market-based monetary policy operations and providing the liquidity necessary for a market in government bonds and private sector debt securities. They also make it easier for financial institutions to cover short-term liquidity needs. In addition, it becomes less risky and cheaper to warehouse securities for on-sale to investors and to fund trading portfolios of securities (Ngugi, Amanja and Maana, 2009).

The money markets contribute a lot towards the development of the bond market as most players will have mismatches between assets and liabilities in their balance sheets and the availability of a liquid money market ensures that funds flow freely from the lenders to the takers at a market determined rate and therefore any investor is able to work out their funding gap as well as the cost.

It therefore becomes clear that the existence of a money market is very key towards achieving a well-developed bond market. Money markets are largely used by organizations that need to borrow short term and organizations with funds to lend in the short term. These are mainly banks and investment institutions but also include government agencies as well as commercial companies.

Participants in the money markets include borrowers who are running deficits, lenders or investors who are running surpluses and intermediaries who will be actively trading the instruments and facilitating movement between lenders and borrowers (King and Levine, 1993). The government agencies play a key role in Kenya, as government is a key player in the fixed income market actively issuing debt on a weekly basis for short-term treasury bills. It uses the money markets to also influence its monetary policy as it becomes very easy to re-price short term money based on the central bank pronouncements. Once a fluid and well-developed money market is established, it becomes very easy to follow through with debt issuance and at the same time deepen the market by creating benchmark issues as well as ensure broad and regular participation by all market players.

The presence of financial services per se as reflected by the size and depth does not imply the accessibility by different users. However, when the financial system has achieved depth then availability of and access to financial services is possible to achieve. The size and depth is viewed as important in determining saving and investment behavior. Furthermore, access and size and depth have significant implications on the real activity, economic growth and welfare.

Financial market deepening is associated with wider sourcing of finance such as the venture capital availability and the ease of access to loans. There is also a significant relationship between venture capital availability and ease of access to loans. Venture capital market in Kenya is very small and the results shows that developing that market will enable firms have access to the loans market especially because of the widened ownership which may guarantee confidence.

In a financially deep market firms have various alternatives for financing their investment. They can use the internal funding or borrow from outside either by raising external equity or using different debt instrument. The choice of the alternative depends on the cost element including the interest rate and agency costs, access and availability, and ability to service. Firms seek external funding when they face liquidity constraints. The availability of alternatives to borrowers lead to competitive interest rates among the lenders hence leading to a reduction in the lending rate which benefit the investors in terms of access to loans and cost reduction this serves

to increase the level of investment within a nation which in turn is reflected in the overall economic development of a country.

RESEARCH METHODOLOGY

Research Design

The study adopted a Quantitative comparative design. Quantitative researchers calculate measures of central tendency like mean and variability like standard deviation just as they do in descriptive research, but these measures alone do not provide evidence of significant differences or relationships among the variables under study (Cooper & Schindler, 2003). Further statistical procedures must be used to answer these questions. The Chi square analysis is an example of a procedure often used to detect significant differences between or among groups, and the correlation is often used to determine whether two or more variables have a systematic relationship of occurrence.

Population of the Study

Population in statistics is the specific population about which information is desired. According to Ngechu (2004), a population is a well defined or set of people, services, elements, events, group of things or households that are being investigated. The target population for this study was: 44 banking institutions (43 commercial banks and 1 mortgage finance company - MFC), 4 representative offices of foreign banks, 6 Deposit-Taking Microfinance Institutions (DTMs), 118 Forex Bureaus and 2 Credit Reference Bureaus (CRBs) transacting business in Kenya as at December 2011.

Sample Size

A sample is a representative of the population. From the above population, the study selected 44 banking institution’s population. This institutions were selected because of their massive role in intermediation which makes them represent more than 50% of the financial intermediation by turnover. Mugenda and Mugenda (2003) state that a sample size of 10-30% of the population is considered enough for the generalization of the findings to the whole study. However, since the study made use of secondary data, the study applied a census where all commercial banks were included. The banking institution have been selected because they are more representative of financial sector deepening and data on them is readily available at the Central Bank of Kenya.

Data Collection

The study used secondary data collected from the Central Bank of Kenya and Deloite reports for the period 2007 to 2011. Specifically, the study collected the data on total deposit accounts, total ATM networks and number of employees. For the dependent variable, the study collected data on Gross Domestic Product (GDP). The use of secondary data is justified on the basis that some

of these sources have information that was very pivotal to this study and has been vetted and accepted.

Data Analysis

The researcher collected data on the number of Automated teller Machines, Number of loan accounts, number of employees, Total Deposit Accounts and Deposits for the period 2007-2011. From these, the researcher calculated the Banking Sector depth, and the employment created over the period on an annual basis. Data collected was presented using tables and figures. The data was then analyzed using SSPS.

In order to determine the relationship between financial sector deepening and economic development, the researcher conducted a regression analysis using the following regression model

$$Y = Bo + B_1X_1 + B_2X_2 + B_3X_3 + \varepsilon$$

Where Y = Economic Growth (GDP per capita)
X_1 = Total Deposit Accounts/ Deposits
X_2 = Total ATM Network
X_3 = Number of Employees
ε = Error term

The data on above variables was collected from secondary data contained in Central Bank reports and reports from the Kenya National Bureau of Statistics (KNBS). Total Deposit Account, Number of employees and number of loan accounts were measured by comparing the changes in number of deposit accounts over the five years under study. These indicate the depth of financial sector in Kenya and how it has affected economic growth.

RESEARCH RESULTS

Regression Analysis

In order to establish the relationship among the variables (independent), multiple regression analysis was conducted. The analysis applied the statistical package for social sciences (SPSS) to compute the measurements of the multiple regressions for the study.

Table 1: Model Summary

Model	R	R^2	Adjusted R Square	Std. Error of the Estimate
1	.873[a]	0.763	0.731	2.19413

Coefficient of determination explains the extent to which changes in the dependent variable (Economic Growth Rate) can be explained by the change in the independent variables or the percentage of variation in the dependent variable that is explained by all the three independent variables (ATMs, Employment opportunities and Total Deposit Accounts).

The correlation and the coefficient of determination of the dependent variables (Economic Growth Rate %) when all the three independent variables are combined was measured and tested. From the findings 76.3% of economic growth rates in Kenya was attributed to combination of the three independent factors (ATMs, Employment opportunities and Total Deposit Accounts) investigated in this study. A further 23.7% of Economic growth rate changes are attributed to other factors not investigated in this study.

Table 2: Coefficient of determination

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.517	1.2798		1.848	.03163
Deposits Accounts	1.405	0.005	4.694	1.472	.0380
Number of employees	-0.002	0.002	-3.209	-1.455	.383
ATM Network	-0.008	0.15	-1.617	-0.511	.0699

a. Dependent Variable: GDP

In order to determine the relationship between financial sector deepening and economic development, the researcher conducted a regression analysis. As per the SPSS generated, the equation ($\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon}$) becomes:

$$Y= 0.517+ 1.405\ X_1+ -0.02X_2+ -0.008\ X_3+ \epsilon$$

Where Y is the dependent variable (economic development), X_1 is the total deposits accounts independent variable, X_2 is number of employees and X_3 is total ATM network.

As per the regression equation established, if all factors were taken into account to be constant at zero, economic growth as measured by GDP would be 0.517. The data findings analyzed also shows that if all other independent variables are taken at zero, a unit increase in Deposit Accounts will lead to 1.405 unit increase in the Gross domestic product of Kenya. Further, a unit increase in number of employees will lead to a -0.002 increase in Gross domestic product of Kenya whereas a unit increase in ATM networks will lead to -0.008 increase in Gross domestic product of Kenya. From the above analysis of the betas, it can be inferred that total deposit accounts contributes a lot on the economic growth in Kenya followed by number of employees and ATM networks.

Summary and Interpretation of the Findings

Financial deepening and intermediation shows the extent of penetration of financial products in the economy at large. A high penetration level is generally attributed to stability and soundness of the financial system and confidence on economic agents. Financial sector plays a vital role in improving the financial deepening in a country. For the case of Kenya, this study used three variables to measure financial sector deepening. The dependent variable was economic growth which was measured by gross domestic product. The independent variables included: automated teller machines (ATMs), employment opportunities and total deposit accounts. These variables grew steady for the five years under study. Trends in widely used indicators of financial sector deepening and intermediation suggest substantial improvement in Kenyan during the last five years.

From the regression analysis listed above in 4.7, it was established that financial deepening affects economic growth positively to the extent of 76.3% if all the conditions are held constant. These findings are in agreement with some scholars and researcher who have established similar results. For example, Odedokun (1998), Islam and Osman (2011) established that financial intermediation drives economic growth while others like Odhiambo (2011) have argued that economic growth drives financial intermediation.

The findings of this study are in contradiction with those of Ardic, Oya and Damar (2006) whose study results revealed a strongly negative relationship between financial deepening measured in terms of both public and private banking sector and growth in real GDP per capita in Turkish provinces. This study sought to contribute to the body of literature by examining the relationship between financial intermediation and economic growth in Kenya which is a unique market with unique characteristics.

ATMs provide many of the most demanded deposit services by customer in the banking industry including: cash withdrawals, cash or check deposits, transfers among deposit accounts, and bill payments. With increases in the number of ATMs, the customer would efficiently conduct their transactions as they would in a physical branch. Increased ATMs promote the saving culture among bank customers. With increased saving among customers, the financial institutions will access deposits which they can use to extend credit in their money creation process. From the study, the number of ATMs offered by the banking industry increased from 1,012 in the year 2007 to 2,205 in the year 2011. This shows that the number of ATMs increased continuously during the study period. Increased ATMs also indicate increased accessibility to finance hence flexibility in transacting. Financial sector deepening through ATMs promotes economic growth through its role of smoothening the financial intermediation role of financial sector by allowing easy access to commercial banks services hence the increase in the number of accounts.

A comparison between deposit accounts and gross domestic product in the year 2008 posits a close relationship between the two. Although there was an increase in the number of deposit

accounts, they increased at reducing rate as compared to other years. This is also manifested in the GDP where the country registered the lowest GDP in the five years under study. This supports the findings of this study that financial sector deepening plays a key role in economic growth. Increase in deposit accounts indicate that the commercial banks are able to collect deposits from a wider customer base hence increasing the amounts available to commercial banks for lending. With increased lending levels in the country, more funds will be invested in different sectors hence positively impacting on the economic growth registered.

This study believes that the most important role of the financial sector in facilitating growth is to reduce information, enforcement, and transaction costs. This is achieved through a number of specific functions that the financial sector performs. These includes among the many roles that the financial sector play: mobilization and pooling of savings as a process of agglomerating capital from diverse savers for investment that would boost economic development in the Country. Mobilizing savings involves overcoming transaction costs and informational asymmetry problems by ensuring easy reach and accessibility of the financial institutions through financial development. This can be achieved through financial sector innovation and employment of technology in their operations because financial systems that are more effective at pooling the savings of individuals promote economic development by increasing savings, exploiting economies of scale, and overcoming investment indivisibilities.

CONCLUSIONS

The study concludes that apart from the three financial sectors deepening factors discussed above, there are other factors having great influence on the economic development of Kenya. These include other macroeconomic factors like the rate of inflation which is fueled by other factors like fuel prices which have a great impact on the prevailing price levels in the country. Another factor noted in the discussions was the prevailing exchange rates in the country as they affect the pricing of imports and exports thus the balance of payment.

The study also concludes that financial sector deepening grew steadily during the study period despite the slow mixed growth in the economic growth registered in the country. Financial sector deepening improved economic growth by increasing accessibility to credit in Kenya as it increased its financial services across the country. In addition, increased financial sector recorded shows that more individuals secured job opportunities in the banking sector hence a boost to economic growth as the living standards of these employed staff was boosted.

The study also concludes that financial sector deepening is an important factor in economic development of a nation. This is because the financial sector plays a key role in the distribution of resources from the surplus units to deficient units in a more efficient way. The findings of this study are consistent with those of Hasan and Wachtel (2007) who established that taken as a whole, their evidence suggested that institutional development was strongly associated with economic growth, based on the 31 Chinese province data for period 1986-2002.

RECOMMENDATIONS

Developing the financial sector means improving the functions, structures, and the human resource, to ensure efficient delivery of services to the citizens. Policymakers should design the policies which will promote the financial and capital markets development and deepening, remove the obstacles that impede their growth and strengthen the health and competitiveness of the banking system. They must introduce measures that increase accountability and autonomy of financial institutions as well as restructuring and recapitalization of financial institutions to ensure stability of the financial system. This study therefore recommends that the Government of Kenya ensure efficiency in its regulation and supervision of all financial institutions in allowing more private banks and non-bank financial institutions to broaden their financial market to accelerate financial development and improve the financial structure that leads to increase economic growth of Kenya.

The study further recommends that the Government through its relevant offices promote the development of Microfinance institutions as they play a key role in deepening financial services in Kenya and in the alleviation of poverty especially in the rural areas. The development of the micro finance sector is very necessary so as to make credit accessible to micro entrepreneurs who are often left out in the formal credit markets. These will boost private sector development and investments which is the engine of growth and development in Kenya. The theoretical argument for linking financial development to economic growth is that a well developed financial system performs several critical functions to enhance the efficiency of intermediation by reducing information, transaction, and monitoring costs. A modern financial system promotes investment by identifying and funding good business opportunities, mobilizes savings, monitors the performance of managers, enables the trading, hedging, and diversification of risk, and facilitates the exchange of goods and services. These functions result in a more efficient allocation of resources, in a more rapid accumulation of physical and human capital, and in faster technological progress, which in turn feed economic growth.

The study also recommends that the Government provide relevant structures and environment for the smooth operation of financial institutions in the country. With an improved operating environment, the financial sector will contribute positively to economic development as it will provide more employment opportunities to Kenya make credit easily accessible to qualifying applicant and deficient units and also increase their deposit levels as they seek to increase their customer base. Financial sector deepening plays an important role in economic development. From the findings, financial sector deepening has a positive correlation with economic growth.

REFERENCES

Ahmed S, Ansari M (1998). Financial sector development and economic growth: The South Asian experience. *Journal of Asian Economics,* 9(3): 503-17

Altman, E. (1993) "Valuation, Loss Reserves and the Pricing of Corporate Bank Loans," *Journal of Commercial Bank Lending,* August 1993, 8-25.

Al-Yousif , Y. K. (2002). Financial development and economic growth: Another look at the evidence from developing countries. *Review of Financial Economics,* 11: 131-150.

Ardic, J. Oya.P. and U. Damr, C. (2006) A Multinomial Logit Model of Bank Choice:An Application to Turkey , *Bo·gazi»ci Univeristy Working Paper*, No: 06-02.

Ayres, Robert U.; Warr, Benjamin (2006). *Economic growth, technological progress and energy use in the U.S. over the last century: Identifying common trends and structural change in macroeconomic time series, INSEAD*

Bank Supervision Report 2007

Bank Supervision Report 2008

Bank Supervision Report 2009

Bank Supervision Report 2010

Bank Supervision Report 2011

Bank Supervision report, 2006

Beck, T. and Webb, I. (2003). Economic, Demographic and Institutional Determinants of Life Insurance Consumption across Countries. The World Bank Economic Review, Vol. 17, No.1, pp.51-88.

Bhattacharya P, and Sivasubramanian ,M. (2003). Financial development and economic growth in India: 1970-1971 to 1998-1999. *Applied Financial Economics,*13(12): 925-929.

Bisignano, J. (1998), "Towards an understanding of the changing structure of financial intermediation: an evolutionary theory of institutional survival", SUERF, Vienna, SUERF Studies No. 4.

Caballero, R.J., E. Farhi, and P.O. Gourinchas, (2008), An Equilibrium Model of ‗Global Imbalances' and Low Interest Rates, *American Economic Review*, Vol. 98:1, 358-93.

Calderon, C. Lin, L. (2003). The direction of causality between financial development and economic growth. *Journal of Development Economics,* 72: 321-334.

Central bank of Kenya Website: www.cbk.go.ke Accessed on 28th June, 2012

Chami, R., C. Fullenkamp, and S. Sharma, (2009), A Framework for Financial Market Development, IMF Working Paper No. WP/09/156 (Washington: International Monetary Fund, July).

Cooper, D.R and Schindler, P.S. (2003) Business Research Methods (8th edn) McGraw-Hill: New York *Council*, I-Shou University, Kaosiung, pp.203-23.

Cooper, R.D &Schindler, P.(2003) Business Research Methods 8th ed. McGraw-Hill

Darrat A. F. (1999). Are financial deepening and economic growth causally related? Another look at the evidence. *International Economic Journal,* 13(3): 19-35.

De-Gregorio J, and Guidotti P. (1995). Financial development and economic growth. *World Development,* 23 (3): 433-448.

Demetriades, P, Hussein, K. (1996). Does financial development cause economic growth? Time series evidence from 16 countries. *Journal of Development Economic s,* 51(2): 387-411.

Drzik, J. (1995), CFO Survey: Moving Towards Comprehensive Risk Management, Bank Management, Vol. 71, pp.40.

Ghali K, H. (1999). Financial development and economic growth: The Tunisian experience. *Review of Development Economics,* 3(3): 310-322.

Goldsmith, R. W. (1969) *Financial Structure and Development.* New Haven, CT: Yale University Press.

Goswami, M. and S. Sharma, 2011, The Development of Local Debt Markets in Asia, IMF Working Paper No. WP/11/132 (Washington: International Monetary Fund, June).

Gourinchas, P.O., and H. Rey, (2005), From World Banker to World Venture Capitalist: U.S. External Adjustment and the Exorbitant Privilege, NBER Working Paper No. 11563 (Cambridge, MA: National Bureau of Economic Research, August).

Greenwood, J. and Jovanovic, B. (1990), Financial Development, Growth, and the Distribution of Income, *Journal of Political Economy*, V. 98: 1076-1107.

Gurley, J. G., and E. S. Shaw. "Financial Structure and Economic Development." *Economic Development and Cultural Change* 15.3 (1967): 257-68. Web.

Habibullah, M. S, Eng Y. (2006). Does financial development cause economic growth? A panel data dynamic analysis for the Asian developing countries. *Journal of the Asia Pacific Economy,* 11(4): 377-393.

Hannagan Tim, (1998), Management Concepts and Practices, 2nd edition, Pitman Publishers, USA.

Harwood, A., (2000). *Building local bond markets: an Asian perspective.* Paper presented at the South Asia regional debt market symposium, Sri Lanka.

Hasan, L. S.and Wachtel, P. (2007), Institutional Development and Stock Price Synchronicity: Evidence from China, July 2007.

International Monetary Fund (2011a), *Recent Experiences in Managing Capital Inflows—Cross Cutting Themes and Possible Guidelines*, available for download at http://www.imf.org/external/np/pp/eng/2011/021411a.pdf.

Islam. M & Oslam. J (2011), Development Impact of Non-Bank Financial Intermediaries on Economic Growth in Malaysia: An Empirical Investigation, *International Journal of Business and Social Sciences, Vol. 2 (14), pp.187-198.*

Jalilian, H, and Kirkpatrick, C. (2002). Financial development and poverty reduction in developing countries. *International Journal of Finance and Economics,* 7(2): 97-108.

Jung, W. S. (1986), Financial Development and Economic Growth: International Evidence. *Economic Development and Cultural Change* 333-46. Web.

King, R.G. and R. Levine, (1993), Finance and Growth: Schumpeter Might be Right, *Quarterly Journal of Economics*, Vol. 108, No. 3 (August), 717-37.

Kioi, M.(2003) Mobilising Revenue: Strengthening domestic Revenue Bases is Key to Creating Fiscal Space for Africa's Developmental Needs, IMF Fiscal Affairs Department, *Finance and Development*, 2002.

KIPPRA (2009), *Kenya Economic Report 2009: Building a Globally Competitive Economy*, Nairobi, Kenya Institute for Public Policy Research and Analysis.

Leland, H. and Pyle, H. (1977), Informational Asymmetries, Financial Structure, and Financial Intermediation," *Journal of Finance*, Vol. 32, No.2 371-387.

Luintel, R. and Khan, M. (1999). A quantitative re-assessment of the finance-growth nexus: Evidence from a multivariate VAR. *Journal of Development Economics,* 60:381-405.

Mugenda M. O. & Mugenda A. (2003). *Research Methods: Qualitative and Quantitative Approaches,* African Centre for Technology Studies, Nairobi, Kenya.

Musau, G. (2002) The impact of financial liberalization on selected financial sector development indicators in Kenya. Unpublished MBA thesis, University of Nairobi.

Ndebbio J. (2004) Financial deepening, economic growth and development: Evidence from selected sub- Saharan African countries: *AERC Research Paper 142 African Economic Research Consortium,* The Regal Press Kenya, Ltd, Nairobi.

Ngechu. M. (2004), *Understanding the research process and methods*. An introduction to research methods. Acts Press, Nairobi.

Ngugi, R. W., Amanja, D. and Maana, I. (2005) *Financial market development in Kenya.* Working Paper n. 9. Kippra.

Ngugi, R., Amanja, D, and Maana, I., (2009) Capital market, financial deepening and economic growth in Kenya. unpublished Capital Markets Paper.

Odedokun. M (1998), Financial Intermediation and Economic Growth in Developing Countries, *Journal of Economic Studies, Vol. 25 (2-3), pp.203-22*

Odhiambo N. M (2004). Is financial development still a spur to economic growth? A causal evidence from South Africa. *Savings and Development*, 28(1): 47-62.

Odhiambo N. M. (2008). Financial depth, savings and economic growth in Kenya: A dynamic casual relation- ship. *Economic Modelling,* 25(4): 704-713.

Odhiambo N. M. (2011) Financial Deepening, Capital Inflows and Economic Growth Nexus in Tanzania: A Multivariate Model. *Journal of Social Science,* 28(1): 65-71 (2011)

Odhiambo. M (2011), Financial Intermediaries versus Financial Markets: A South African Experience, *International Business and Economic Research Journal, Vol. 10 (2), pp. 77-84.*

Odhiambo. N (2009), Finance-Growth-Poverty Nexus in South Africa: A Dynamic Causality Linkage, *Journal of Socio-Economics, 38(2), 320-325.*

OECD (2006) *Promoting Pro-poor Growth: Policy Guidance for Donors*. OECD, 2006.

Rajan, R.G., and L. Zingales, (1998), Financial Dependence and Growth, *American Economic Review*, Vol. 88, No. 3, pp. 559-86.

Rousseau, P. L. and Wachtel, P. (2007), What is happening to the impact of financial deepening on economic growth? *Economic Inquiry.*

Scholtens, B., van Wensveen, D. (2003), "The theory of financial intermediation: an essay on what it does (not) explain", SUERF, Vienna, SUERF Studies No. 2003/1.

Shaw, Edward (1973). *Financial Deepening in Economic Development*. Oxford University Press

Spears A 1992. The role of financial intermediation on economic growth in SSA. *Canadian Journal of Development Studies,* 13: 361-380.

Suleiman, A, Abu-Qaun, A. (2008). Financial development and economic growth: Time-series evidence from Egypt. *Journal of Policy Modelling,* 30(5): 887-898.

Valverde, C,, Humphrey S., and Fernandez, F. (2003), Deregulation, Bank Competition and Regional Growth, *Regional Studies*, 37, 227-237.

Waqabaca, C. (2004). *Financial Development and Economic Growth in Fiji. Working Paper 2004/03* (December). Economics Department, Reserve Bank of Fiji.

William B, (1991), Managing Quality Customer Service, Kogan Page Ltd, Great Britain.

Witherell, W. (2003). *Global and local bond markets: a financial stability perspective.*http://info.worldbank.org/etools/docs/library/83697/witherell.doc. Accessed 28 July, 2011.

Wood, A. (1993). Financial development and economic growth in Barbados: Causal evidence. *Savings and Development,*17(4): 379-389.

World Bank and International Monetary Fund, 2001, *Developing Government Bond Markets: A Handbook* (Washington: World Bank).

World Bank Group, 2011, *Local Currency Bond Markets in Emerging Markets: A Contribution to the Stability of the International Monetary System* (Washington, April).

World Bank: Kenya at a Glance factsheet (http://devdata.worldbank.org/AAG/ken_aag.pdf).

World Bank: World Development Indicators Database, April 2009 (*http://ddp-ext. worldbank.org/ext/ddpreports/ViewSharedReport?&CF=1&REPORT_ID=9147 &REQUEST_ TYPE=VIEWADVANCED&HF=N&WSP=N*).

Xu, Z. (2000). Financial development, investment and economic growth. *Economic Inquiry,* 38 (2): 331 –344.