

**THE RELATIONSHIP BETWEEN FINANCIAL
DEEPENING AND THE GROWTH OF SMALL AND
MEDIUM ENTERPRISES IN KENYA**

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DECLARATION

This Management Research Project is my original work and has not been submitted for a degree in any other University.

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DEDICATION

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ABSTRACT

Financial inclusion offers incremental and complementary solutions to tackle poverty and to promote inclusive development. Financial deepening plays an important role in reducing risk and vulnerability for disadvantaged groups, and increasing the ability of individuals and households to access basic services like health and education, thus having a more direct impact on poverty reduction (Lavine, 1997). The performance and long-run economic growth and welfare of a country is related to its degree of financial development which is measured by factors such as size, depth, access and the efficiency and stability of its financial system, which includes its markets, intermediaries and range of assets, institutions and regulation. A crucial element in the development of the SME sector is access to finance, particularly to bank financing, given the relative importance of the banking sector in serving this segment. Firm-level data collected by the World Bank show that access to finance is perceived as one of the main obstacles to doing business (World Bank, various years). The purpose of this study was to establish the relationship between financial deepening and the growth of Small and medium enterprises in Kenya. This study therefore, sought to answer the question whether there is a relationship between financial deepening and the growth of small and medium enterprises (SMEs) in Kenya.

This study adopted both descriptive and exploratory designs. The population for this study consisted of all the Kenya top 100 medium sized companies year 2012. The study sampled 20 SMEs in Nairobi area. Secondary data was collected from the selected SMEs financial statements. The study used both descriptive and inferential statistics in analyzing the data. Chi-square test was also applied in the study to test the null hypotheses on the fact that if the p value for the calculated Chi-square is $p > 0.05$, then the null hypothesis is accepted. The data was entered into the statistical package for social science (SPSS) and analyzed using descriptive, correlation and regression analysis.

From the findings of the study, averages for capitalization, savings and loans for the 20 SMEs extracted from the financial and annual statements reflected an upward increase over the 5 year period, with the highest being in year 2012. From the findings, it is clear that there was a positive correlation between gross domestic savings and level of capitalization also; there was a positive correlation between domestic credit to SMEs sector and level of capitalization. The study revealed that a unit increase in gross domestic savings will cause an increase in level of capitalization. The study further found that a unit increase in domestic credit to SMEs sector will cause an increase in level of capitalization. The study concluded that finance whether owned or borrowed, is needed by SMES to expand so as to maximize profit. The study also concluded that small and medium sized enterprises in both developing and developed countries plays important roles in the process of industrialization and economic growth, by significantly contributing to employment generation, income generation and catalyzing development in urban and rural areas. The study recommends the need for further studies on the major structural impediments that prevent the Kenyan financial system from reaching its full potential.

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ABBREVIATIONS

ANOVA	-Analysis of Variance
CBK	- Central Bank of Kenya
GDP	- Gross Domestic Product
IFC	- International Finance Co-operation
IMF	- International Monetary Fund
SMEs	- Small and Medium Enterprises
MSME	- Micro Small and Medium Enterprises
SSA	- Sub-Saharan Africa
SPSS	- Statistical Package for Social Sciences

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

The development of domestic SME sector is considered as a key factor for effective growth and sustainable development. While a large SME sector is not associated with faster poverty alleviation, financial deepening can have a pro-poor effect through alleviating SMEs' financing constraints, enabling new entry and better resource allocation. According to Jalilian and Kirkpatrick (2005) there are some clear links of financial development with poverty reduction, economic growth and inequality in developing countries. Empirical analysis confirms the common finding of a positive relation between financial development and growth relation, noticeably for poorer developing countries.

1.1.1 The concept of financial deepening

Financial deepening is the increased provision of financial services, and access to basic financial services such as credit, savings and insurance. It is the increase in the size of the financial system and in its role of financing with a wider choice of service geared to the development of all levels of society. The concept of financial deepening is usually employed to explain a state of an atomized financial system, that is, a financial system which is largely free from financial repression Nnanna and Dogo, (1998). Financial inclusion offers incremental and complementary solutions to tackle poverty, to promote inclusive development Chibba, (2009). It aims at drawing the unbanked population in to the formal financial system so that they have the opportunity to access financial services ranging from savings, payments and transfers to credit and insurance.

From a monetary policy perspective, the growing diversification of firms and households portfolios is especially relevant, as they are more and more affected by the developments in financial markets. Financial deepening plays an important role in reducing risk and vulnerability for disadvantaged groups, and increasing the ability of individuals and households to access basic services like health and education, thus having a more direct impact on poverty reduction (Lavine, 1997).

A large body of economic literature, as cited in Beck, Demirguc-Kunt, and Peria, (2006), supports the premise that, in addition to many other important factors, the performance and long-run economic growth and welfare of a country are related to its degree of financial development. Financial development is measured by factors such as size, depth, access, and the efficiency and stability of a financial system, which includes its markets, intermediaries, and range of assets, institutions, and regulations. The higher the degree of financial development, the wider the availability of financial services that allows the diversification of risks. This increases the long-run growth trajectory of a country and ultimately improves the welfare and prosperity of producers and consumers with access to financial services.

Theory suggests that the creation and promotion of efficient financial institutions are necessary for genuine and enduring economic process. Financial institutions can ameliorate risk, improve savings, corporate governance, mobilize savings, reduce transaction and information cost, and promotes specialization (Lavine, 1997). Economists have long held the views that the development of the financial system (financial deepening) and economic development are closely intertwined (Demirguckunt and

Levine, 2001). The literature however contains relatively few formal models presumably because it has proved hard to integrate money and financial intermediation into a standard dynamic general equilibrium framework of macroeconomics and growth.

Stress tests conducted by the central bank of Kenya year 2012, indicate that the sector remains sound and resilient. It is noteworthy that the financial sector is developing and deepening faster than the overall economy. It grew by 9.0% in 2010 and 7.8% in 2011 while the economy grew by 5.8% and 4.4% in 2010 and 2011 respectively. This has been driven by financial infrastructure that has enabled financial inclusion.

1.1.2 The growth of Small and Medium Enterprises

Small and medium-sized enterprises are observed as capable instruments to solving the critical problems of development and poverty affecting most developing countries (Kayanula and Quartey 2000; Mead and Liedholm 1998; Fischer 1995), therefore the need for their growth in Kenya is beyond question. Amidst many other problems, gaining access to bank credits and other financial markets have been identified as a key hindrance to this growth. Given the great potential of small and medium sized enterprises to bring about social and economic development, it is of no surprise that the performance of SMEs is of all huge concern to the government of different countries in the world.

Small and medium sized enterprises in both developing and developed countries plays important roles in the process of industrialization and economic growth, by significantly contributing to employment generation, income generation and catalyzing development in urban and rural areas, finance whether owned or borrowed, is needed to expand so as

to maximize profit and given the nature of SMEs, there is a need for financing. As described by the South African reserve bank (2004) in a report conducted by the Task Group of the Policy Board for Financial Services and Regulation, SMEs generally have four key funding requirements: i) initial infrastructure investments, ii) lumpy operations costs, iii) next-step expansions, and iv) unexpected opportunities requiring quick access to funds. Despite what the funding requirement maybe, SMEs often prioritize the source of financing from internal (cash flow or entrepreneurs own capital) to external, according to relative availability and (opportunity) cost (Ogujiuba, Ohuche and Adenuga 2004). This is because for most firms, the internal funds are always insufficient to undertake the required level of transactions for profitable projects hence the call for external finance to fill the finance gap.

1.1.3 The relationship between financial deepening and the growth of SMEs

Theoretically, financial development creates enabling conditions for growth through either supply-leading (financial development spurs growth.) or a demand following (growth generates demand for financial products) channel. Empirical research supports the view that development of financial system contributes to economic growth Rajan and Zingales, (2003). Empirical evidence consistently emphasizes the nexus between finance and growth, though the issue of direction of causality is more difficult to determine.

Fisman and Love (2004) conducted a sectoral level experiment to test how financial development affects productivity growth. The authors use the Rajan and Zingales (1998) framework to identify industries relying on external finance to test how financial development affects growth in the short and in the long run. The authors found that

regardless of the reliance on external finance, in the short run financial development promotes growth by allocating funds towards the most profitable investments, a result in line with the Hartmann et al (2007) paper. They found that in the long run, more financially developed countries allocate a higher share of resources towards the sectors that rely most on external finance. These financially dependent industries, as noted by the authors are also the most likely to invest in R&D and technology. In this sense, in the long run, access to credit, stimulates greater productivity growth.

In a similar spirit, Beck, Demirguc-Kunt, Laeven and Levine (2004) employed a cross country, cross industry approach to explore the effect of financial sector efficiency on firm entry. They constructed a variable measuring the industry reliance in each country on small firm and found that industries with a high share of small firms grow faster in financially developed countries. This result can be interpreted not necessarily on credit impacting total factor productivity, but more likely on credit enhancing labor productivity by allowing small firms to accumulate capital, and graduate faster from SMEs to larger firms.

An inclusive financial system is critical to economic development, poverty alleviation and reducing inequality. Access to finance is therefore integral to economic and human development. The financial sector as the important component of economic transformation hinges on three essential pillars: access, efficiency and stability. Cross-country comparisons have shown the importance of a well-developed financial sector for long-term economic growth and poverty alleviation. Countries with better developed banking systems and capital markets enjoy higher growth rates; and it is the poorest

segments of society that stand to gain most (Beck, Levine and Loayza, 2000; Beck, Demirgüç-Kunt and Levine, 2004; for an overview, see World Bank, 2001).

According to World Bank policy research paper, (2004), the positive relationships from the study do not only reflect correlations between financial development and income growth; well developed financial intermediaries and markets exert a causal impact on economic development. Well-developed financial institutions and markets foster economic development by improving the allocation of society's scarce resources rather than by facilitating faster capital accumulation or increased savings Beck, Levine and Loayza, (2000). A well-developed financial system widens access to external finance and channels resources to the sectors that need them most Rajan and Zingales, (1998); Demirgüç-Kunt and Maksimovic,(1998); Wurgler, (2000). Finally, effective financial institutions and markets can help economies cope better with exogenous shocks such as terms of trade volatility and move them away from natural resource based development Beck, 2002; Raddatz, (2003).

1.1.4 SME industry in Kenya

While sessional Paper No. 2 of 2005 defines SME as an enterprise with between 1 to 50 employees, the World Bank defines an SME as one that fits to either of the following criteria that is to say: (1) A formally registered business (2) with an annual turnover of between Kenya Shillings 8 to 100 million (3) an asset base of at least Kenya Shillings 4 million and (5) employing between 5 to 150 employees. The MSME Bill 2011 has used 2 criteria to define SMEs in general that is: (a) the number of people/employees and (b) the

company's annual turnover. For enterprises in the manufacturing sector, the definition takes into account the investment in plant and machinery as well as the registered capital. According to Kenya's blue print and strategy for development known as Vision 2030 that aims towards making Kenya a newly-industrializing middle-income country capable of providing a high quality of life for all its citizens by the year 2030; Kenya's competitive advantage lies in agro-industrial exports. For superior performance of the manufacturing sector, one strategy includes strengthening SMEs to become the key industries of tomorrow, Vision 2030 therefore recommends a need to boost science, technology and innovation in the sector by increasing investment in research and development.

Kenya's Vision 2030 is the economic blue print for transforming Kenya into a newly industrializing "middle-income country providing high quality of life to all its citizens by the year 2030" (Vision 2030, p. 1). The financial sector through its intermediation function is the engine and driver of the realization of the goals outlined in the Vision 2030.

There is growing recognition of the important role small and medium enterprises (SMEs) play in economic development. They are often described as efficient and prolific job creators, the seeds of big businesses and the fuel of national economic engines Kayanula and Quartey, (2004). Even in the developed industrial economies, it is the SME sector rather than the multinationals that is the largest employer of workers.

In Kenya it accounts for 75% of the total employment while contributing 18.4 percent of the country's Gross Domestic Product, the SME sector has caught the attention of

government and other private sector who in a bid to move the country to a middle level economy as envisaged in the development blue print of Vision 2030 are strategizing how to create an enabling environment for this sector with the realization that the sector is a key pillar if the country is to realize its Vision 2030. Already the Kenyan government has taken the driver's seat in championing SME sector as key to shaping the Vision 2030 Kenyan dream.

1.2 Research problem

Development of the financial system facilitates portfolio diversification for savers reducing risk, and offers more choices to investors increasing returns. Another important function of financial system is to collect and process information on (productivity-enhancing) investment projects in a cost effective manner, which reduces cost of investment for individual investors King and Levine, (1993b). The efficiency as well as the level of investment is thus expected to rise with the financial development that liberalization promotes. These benefits include a decrease in firms' in self-investment at low and even negative rates of return, allocation of credit by capital markets rather than by public authorities and commercial banks, a shift away from capital-intensive investments due to the higher cost of capital reflecting its scarcity, the lengthening of financial maturities, and the elimination of fragmented and inefficient curb markets Balassa, (1993).

More recently, King and Levine (1993) acknowledged those scholars who are wary of drawing links between finance and growth. However, in their own work, they have gone on to develop more sophisticated methods for measuring the linkages between financial development and growth. In particular, by examining a longer-term data set, they have been able to demonstrate more forcefully than others (such as Goldsmith 1969) the apparent causal effect of finance on growth: The link between growth and financial development is not just a contemporaneous association. Finance does not only follow growth; finance seems importantly to lead economic growth. Furthermore, a positive association between contemporaneous shocks to financial development and economic growth does not fully account for the finance-growth link. When countries have relatively high levels of financial development, economic growth tends to be relatively faster over the next 10 to 30 years.”

There is no doubt that small and medium-sized firms are the drivers of the Kenyan economy. They employ about 7.5 million Kenyans or 80 per cent of the country's total employment outside the small-scale agriculture. But little has been understood about their operations, ownership, source of capital and the key challenges that they face as they propel growth of the Kenyan economy. This could be the reason why they should be supported to graduate from their current state. Perhaps the question could be are there certain efforts in progress? For one, lack of insight on the sector has left policy makers, key support players such as financial institutions and others groping in the dark on how best to implement SME policies.

A crucial element in the development of the SME sector is access to finance, particularly to bank financing, given the relative importance of the banking sector in serving this segment. Firm-level data collected by the World Bank show that access to finance is perceived as one of the main obstacles to doing business (World Bank, various years). A number of studies have shown that financing is a greater obstacle for SMEs than it is for large firms, particularly in the developing world, and that access to finance adversely affects the growth of the SME sector more than that of large companies Schiffer and Weder, (2001); Beck et al, (2005); Beck et al, (2006). Although by regional standards, Kenya's financial system is relatively well developed and diversified, major structural impediments prevent it from reaching its full potential. It is therefore, unsurprising that the international development community has listed SME access to finance as an important policy priority.

In a study done by Wanyama 2011, looked at Challenges of financing small and medium enterprises in Nairobi and one of the Constraints identified was access to credit due to lack of collateral, Kanyingi 2011, also did a study on the impact of financial deepening on economic growth in Kenya and the study revealed that there was a positive relationship between financial deepening and economic growth. There is need therefore to address the relationship between financial deepening and the growth of small and medium enterprises in Kenya. This study therefore sought to fill the gap by studying the relationship between financial deepening and the growth of small and medium enterprises. The question this study sought to answer was what is the relationship between financial deepening and the growth of SMEs in Kenya?

1.3 Objective of the study

To establish the relationship between financial deepening and the growth of Small and Medium Enterprises (SMEs) in Kenya

1.4 Value of the study

The findings of the study will benefit the following;

Policy makers

The policy makers and government authorities that are in a position to influence both financial deepening and macroeconomic variables gain a deeper appreciation of the effect of their decision on the two variables and also allows them take a closer look at a range of financial deepening indicators and draw some conclusion about their effect on growth represented by annual GDP growth rate, and also help them focus on implementing policy reforms to alleviate market, institutional and political barriers to competition.

Financial Analysts

The findings provide guidance to financial analysts and capital market intermediaries on how best to construct investment portfolios across market industries and affect the growth of Small and Medium Enterprises (SMEs) in the economy.

Small and medium enterprises in Kenya

It enables small and medium enterprises in Kenya appreciate the role of financial institutions in fostering growth and development by expanding the financial system to more individuals which in turn boost investment activity leading to higher growth rates.

Academics

The findings add to the existing literature on the subject. It assists researchers who want to carry out further studies in the area of financial deepening and growth of SMEs in Kenya to obtain insight on this area.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter covers various Theoretical studies on financial deepening and its relationship on growth. The first section covers theoretical review and the next part covers empirical evidence and summary of the literature drawn from literature review.

2.2 Theoretical Review

The study looks at four theories which include financial liberalization theory, Neo-classical growth model, Endogenous growth theory and the Growth theory of cumulative causation. Key among this is financial liberalization theory which looks at how a liberalized financial system can positively affect economic growth.

2.2.1 Financial Liberalization Theory

In financial liberalization theory, as advanced by McKinnon, (1973) and Shaw, (1973), financial repression, that is distortions of financial prices such as interest rates, reduces the real size of the financial system relative to the non-financial, which leads to slow real rate of economic growth. The theory rests on the assumptions that saving is an increasing function of real rate of interest on deposits and real rate of growth in output and that investment is a decreasing function of the real loan rate of interest and an increasing function of the growth rate. According to this theory, in an environment where investment opportunities are plentiful but the financial system is repressed, the key to higher and more efficient investment is to raise the return to savers that is the real interest rate.

The theory concluded that alleviating financial restrictions in developing countries (mainly by allowing 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. Additionally, McKinnon pointed out that Financial Repression can lead to dualism in where 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.

2.2.2 Neo-classical growth model

The theory was contributed by Robert Solow (1956), and has the following assumptions; constant return to scale, diminishing marginal productivity of capital, exogenously determined technical progress and substitutability between capital and labor. The major innovation introduced by Solow was to allow for factor substitutability so that stable equilibrium growth could be obtained. As a result the model highlights the savings or investment ratio as important determinant of short-run economic growth. Technological progress, though important in the long-run is regarded as exogenous to the economic system and therefore it is not adequately examined by the model. On the issue of convergence, the model predicts convergence in growth rates on the basis that poor economies will grow faster compared to rich ones.

2.2.3 Endogenous Growth Theory

The theory as advocated by Romer (1986), and Lucas (1988), emphasizes the role of capital, both physical and human, as the main determinant of growth. The role of technological progress as a key driver of long-run economic growth has been put in scrutiny from more recent studies, which accept constant and increasing returns to capital. These theories known as endogenous growth theories propose that the introduction of new accumulation factors, such as knowledge and innovation will induce self-maintained economic growth. Triggered by Romers (1986) and Lucas (1988) seminal studies, work within this framework highlighted three significant sources of growth; new knowledge Grossman and Helpman,(1991), innovation Aghion and Howitt, (1992), and public infrastructure (Barro,1991). Play substantial role in advancing growth on a long-run basis. Turning to the convergence /divergence debate, the endogenous growth models suggest that convergence would not occur at all (mainly due to the fact that there are increasing returns to scale).

2.2.4 Growth theory of cumulative causation

Another strand of literature, perhaps less influential is the growth theory of cumulative causation developed by Kaldor (1957). Essential to this theory is the argument of cumulative causation in which initial conditions determine economic growth of places in a self-sustained and incremental way. As a result the emergence of economic inequalities among economies is the most possible outcome. Although there are centrifugal effects (positive spillovers) spreading growth from the more to the less advanced economies, they are incapable of bringing the system into a state of balance if market forces alone are

left at work. In other words, economic policy has to come in to play to correct those imbalances. In contrast to the theories mentioned above, theories of cumulative causation has a medium term view and often described as “soft” development theories due to lack of applied mathematical rigour. However, certain similarities are evident between the cumulative causation approach and theory of endogenous growth.

2.3 Theory of financial deepening

The argument that advocates that financial sector liberalization leads to financial development and eventually to economic growth is based on the theoretical framework and analytical underpinning by Mckinnon (1973) and Shaw (1973). The concept of financial deepening is usually employed to explain a state of an atomized financial system, that is, a financial system which is largely free from financial repression (Nnanna and Dogo, (1998). Financial deepening results from the adoption of appropriate real finance policy, namely relating real rates of returns to real stock of finance. Conversely shallow financial system is partly the consequence distortions in the relative process of finance. Financial intermediation of growth allows for financial deepening.

Shaw (1973) contends that an increase in the real size of the monetary system will generate opportunities for the profitable operations of other institutions as well, from bill dealers to industrial banks and insurance companies. In its own right, financial depth contributes to growth by improving the productivity of investment. This linkage corroborates further the positive role played by financial liberalization on growth Friedman (1998).

It is well established that a vibrant, dynamic, and well functioning financial sector leads to a host of improved economic outcomes, as surveyed first by Levine (1997a), then by DemirgucKunt and Levine (2008 and 2009), there is a vast literature showing the benefits that accrue to countries in which financial development is greater. On the theoretical side, early work by McKinnon (1973) and Goldsmith (1969), among others, highlighted the key role in economic development that could be played by a banking system free of the types of controls on interest rates and quantities that were prevalent at the time. As the literature progressed, it began to recognize that the financial system in general not exclusively banks performed four basic functions essential to economic development and growth: mobilization of savings, allocation of resources to productive uses, facilitating transactions and risk management, and exerting corporate control. Through these functions, a country providing an environment conducive to greater financial development would have higher growth rates, with much of the effect coming through greater productivity rather than a higher overall rate of investment.

2.4 Financial deepening measurement

Quantity indicators based on monetary and credit aggregates are the traditional measures of financial development and deepening. They are proxy measures of savings and credit intermediation in an economy and are expected to increase in response to improved price signaling, represented primarily by the establishment of positive real interest rates. The simplest indicator is the money/GDP ratio, which measures the degree of monetization in the economy. Money provides valuable payment and saving services. However, it is

preferable to directly measure credit intermediation, “Private sector credit,” which focuses on credit given to the “productive” sector of the economy. Theoretically, financial development creates enabling conditions for growth through either a supply-leading (financial development spurs growth) or demand- following (growth generates demand for financial products) channel. A large body of empirical research supports the views that development of the financial system contributes to growth. Empirical evidence consistently emphasizes the nexus between finance and growth, though the issue of direction of causality is more difficult to determine. At the cross -country level, evidence indicates that various measures of financial development (including assets of financial intermediaries, liquid liabilities of financial institutions, domestic credit to private sector, stock and bond market capitalization) are robustly positively related to economic growth (King and Lavine, 1993; Lavine and Zervos 1998). Even the recent endogenous growth literature, building on learning by doing process, assigns a special role to finance.

Financial deepening implies the ability of financial institutions to effectively mobilize savings for investment purposes. The growth of domestic savings provides the real structure for the creation of diversified financial claims. It also presupposes active operation of financial institution in the financial markets, which in turn entails the supply of quality (financial) instruments and financial services. Financial deepening generally entails an increased ratio of money supply to gross domestic product Nnanna and Dogo, (1998) and Nzotta, (2004). Financial deepening is thus measured by relating monetary and financial aggregates such as M1, M2 and M3 to the Gross Domestic Product (GDP). The more liquid money is available to an economy, the more opportunities exist for

continued growth of the economy. Financial deepening can therefore be defined as the ratio of money supply to GDP, is a function of domestic credit provided by banking sector as a percentage of GDP, Financial savings to GDP, rate of inflation, real lending rates, deposit money bank assets to GDP, currency outside banks to money supply see (King and Levine, (1993), Khan and Senhadji (2000).

In mature financial systems financial institutions develop appraisal techniques, and information gathering and sharing mechanisms, which then enable banks to finance those activities. It is this availability of external finance to budding enterprises and small firms that enables new entry, while also providing competition to incumbents and consequently encouraging productivity and the growth of small and medium enterprises.

2.5 Empirical Evidence

Recent work on causality issue by Rajan and Zingales (1998*a*), took a different approach, focusing on a more disaggregated relationship between finance and growth. They stressed that financial development reduces the costs of external finance to firms and promotes their growth. Assumption is that different industries have their own efficient demand for external finance (investment minus internal cash flow) and that the distribution of the need for external finance by industry is very comparable across countries. In this setting, an industry with more demand for external finance should grow faster in countries with more developed financial markets. They used the US as a benchmark country with relatively frictionless financial markets, and found that industries more dependent on

external finance grow faster in countries with more developed banks (as measured by PRIVY) or stock markets (stock market capitalization).

Some favorable evidence for the existence of a positive causal link between banking deregulation and growth has been provided by Jayaratne and Strahan (1996). They analyzed the effect that the relaxation of bank branch restrictions in the United States may have had on growth at the state level. Their results pointed to a positive growth effect resulting from intrastate branch reform through the transmission channel of greater quality of bank lending.

The seminal empirical work that established the growth-finance link by King and Levine (1993), introduced four measures for the development level of financial intermediaries, which may measure the functioning of the financial system more precisely, averaged over the period 1960-1989. These measures included; Depth that is the liquid liabilities of the financial system [(currency plus demand and interest bearing liabilities of banks and nonbanks)/GDP]; Bank which is the importance of the role of banks (relative to the central bank) for allocating credit, $(\text{bank credit} / (\text{bank credit} + \text{central bank domestic assets}))$; Private ratio of credit allocation to private business to total domestic credit (excluding credit to banks); Privy ratio of credit to private business to GDP.

They also employed three growth indicators averaged over the same period: real per capita GDP growth (economic growth); real per capita capital growth (capital accumulation); and TFP growth (productivity growth). They ran 12 regressions on a cross-section of 77 countries, controlling for other variables associated with economic

growth like income per capita, education, political stability, and indicators of exchange rates, trade, fiscal and monetary policy. They found statistically and economically significant coefficients of financial development in all 12 regressions and confirmed a very strong relationship between each of the four financial development indicators and each of the three growth variables. Therefore, financial development can have a large impact on growth rate. In order to investigate whether growth results from financial development, they also considered how well the degree of financial depth in 1960 is correlated with the three growth indicators averaged over 1960 -1989. Their regressions suggested that the initial level of financial development could predict well the subsequent rates of economic growth, capital accumulation and productivity growth, even after controlling for important core factors of economic growth.

According to IMF report year (2007), financial sectors in Sub-Saharan African countries are among the least developed in the world. To some extent this can be blamed on misguided policies of the past that encouraged substantial political interference in the operation of financial institutions. Historically, SSA countries placed significant emphasis on building and protecting the real sector, and most countries believed they could reach their development objectives through selective credit allocation. While the pace of reform has varied and some restrictions remain in place in some countries, progress in liberalizing financial markets has been substantial throughout SSA. However, financial intermediation is still low, and by some measures has even declined. For example, between the early 1980s and the end of 2004, the simple SSA average of private sector bank credit to GDP fell from 15.6 percent to 15.1. Excluding 15 countries

whose financial sectors showed signs of sustained development during this period, the average private sector credit to GDP ratio declined from 17.2 percent in the early 1980s to 8.7 percent by the end of year 2004.

According to the IMF report of the year 2007, the impact of legal institutions and financial liberalization reforms on financial development was estimated by using panel data of 37 SSA countries and three data points, constructed as averages: 1983–87, 1993–97, and 2000–04. The results are summarized as follows: Financial liberalization has promoted deeper financial markets in SSA countries. In almost all the specifications, and after controlling for macroeconomic factors, the coefficient of the financial liberalization index is positive and significant. In countries with similar financial liberalization efforts, those with better legal institutions have on average outperformed the others. They have achieved this by reducing information asymmetries, by honoring the rule of law, and by having relatively more efficient judicial systems.

The legal variables coefficients are significant and hold the expected sign. Countries whose legal systems are inspired by French institutions seem to have been less successful on average in promoting financial development. For the macroeconomic variables the coefficients for inflation are in most regressions negative and significant, suggesting that the sustained reduction in inflation achieved in most SSA countries over the last two decades has helped to promote credit to the private sector. As suggested by the excess liquidity observed in SSA banks, fiscal deficits do not seem to have been an obstacle to financial deepening in the recent past.

2.6 Summary of Literature Review

A developed financial system broadens access to funds, conversely, in an undeveloped financial system, access to funds is limited and people are constrained by the availability of their own funds and have to resort to high cost informal sources such as money lenders. One of the key features of financial deepening from the literature is that it accelerates economic growth through the expansion of access to those who do not have finance themselves. It is this availability of external finance to budding entrepreneurs and small firms that enable new entry, while also providing competition to incumbents and consequently encourage entrepreneurship and productivity. Financial deepening helps to alleviate SMEs financing constraints, enabling new entry and resource allocation.

From the literature financial deepening results from the adoption of appropriate real finance policy, namely relating real rates of returns to real stock of finance. Conversely shallow financial system is partly the consequence distortions in the relative process of finance. Financial intermediation of growth allows for financial deepening. Despite various studies on the relationship between finance and growth little research has been done on the relationship between financial deepening and growth of SMEs especially here in Kenya. Many of previous studies on this subject from the literature review suffer from limitation of relying on cross-sectional data which cannot satisfactorily address the country specific issues. The problem of using a cross-sectional method is that grouping together countries that are at different stages of financial development and growth fails to address the country specific effect of financial development.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the procedures which were followed in conducting the study. These procedures included the research design, population and the sample, data collection methods and data analysis methods. Research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Kothari, 2004).

3.2 Research Design

This is a descriptive study which involves an investigation of what relationship the other has among different variables Chandran, (2004). Descriptive approach to this study was most preferred because the study determines whether financial deepening leads to growth of Small and medium enterprises. This study adopted both descriptive and exploratory designs. The study intended to determine the relationship between financial deepening and the growth of SMEs. The independent variable was the presumed cause, and the dependent variable was the potential effect. In the context of this study growth of SMEs was the dependent variable while proxy measures for financial deepening formed independent variables.

3.3 Population

The population for this study consisted of all the Kenya top 100 medium sized companies year 2012. (List attached in appendix, source: KPMG and Business Daily, 2012).

3.4 Sample

The study sampled 20 SMEs in Nairobi area. The 20 formed the sample due to this SMEs being spread out in a large geographical area. The study targeted those enterprises which have been in operation for the last five years that is year 2008 to year 2012 since this formed the period of study.

3.5 Data Collection

Secondary data was collected from the selected SMEs financial statements. All the variables of interest namely level of capitalization, commercial bank domestic credit to SMEs sector and domestic financial savings was obtained from the selected SMEs. The variable for measuring growth of SMEs was capitalization, while domestic savings and credits was the variable for measuring financial deepening. All this was obtained from selected SMEs financial statements. Data collection guide was developed and used by the researcher to obtain the data needed.

3.6 Data Analysis

The study used both descriptive and inferential statistics in analyzing the data. First, data collected was sorted, classified and collated. Descriptive statistics such as mean and standard deviation for each variable was calculated and tabulated using tables and inferential statistics. The SPSS (version 17) computer software aided the analysis. The data was entered into the statistical package for social science (SPSS) and analyzed using descriptive, correlation and regression analysis. Inferential test including the Pearson product- moment correlation coefficient and regression analysis was used to test the

relationship between the variables. The correlation coefficient determined the strength of linear association between the two variables. Regression analysis was used to analyze the relationship between financial deepening and the growth of SMEs. The two predictors in the model were the proxy measures for financial deepening namely domestic credit to private sector in this case focus was domestic credit to SMEs and gross domestic savings.

3.6.1 Analytical Model

The study used a multivariate regression model to determine the importance of each variable with respect to financial deepening and growth of SMEs in Kenya. The regression model that was evaluated is specified as follows;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + e$$

Where:

Y = is the dependent variable which represent the growth of SMEs measured by the level of capitalization

β_0 = Constant term

β_1 = Beta coefficients

X_1 = Domestic credit to SMEs

X_2 = Gross domestic savings

e = error term

Y is the dependent variable which represented the growth of small and medium enterprises and the other variables included two proxy measures for financial deepening namely domestic credit to SMEs (X_1) and gross domestic savings (X_2). β_j , = 1 and 2 are

slope coefficient whose sign depicted the relationship between dependent variable and independent variables.

E is error term contained in the model. This measured the goodness of the model and captured the effect of all other independent variables not captured in the model. Analysis of variance (ANOVA) was most preferred in the study as it enabled performance of simultaneous test hence considered important tool of analysis Kothari, 2004.

Chi-square test was also applied. Chi-square is a quantitative measure used to determine whether a relationship exists between two categorical variables. These tests are always testing the null hypothesis, which states that there is no significant difference between the expected and observed result. Testing of the null hypotheses is based on the fact that if the p value for the calculated Chi-square is $p > 0.05$, then the null hypothesis is accepted.

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents analysis and findings of the research. The objective of this study was to determine the relationship between financial deepening and the growth of Small and Medium Enterprises (SMEs) in Kenya. The data was collected from the selected SMEs financial statements for a period of 5 years (2008-2012).

4.2 Analysis and interpretations

4.2.1 Descriptive statistics analysis and interpretations

Table 4.1: Annuals averages

	Capitalization	Savings	loans
2012	12371749	2670807	2744633
2011	10176265	1746183	2083885
2010	10573008	2388965	2331146
2009	8263876	1698954	1553331
2008	9131384	2428388	2676341

Source: Research, (2013)

From the findings, the averages for capitalization, savings and loans for the 20 SMEs which was extracted from the financial and annual statements reflects an upward increase over the 5 year period, with the highest being in 2012.

Table 4.2: Descriptive statistics

	Minimum	Maximum	Mean	Std. Deviation
Capitalization	4073292.35	23249345.75	1.0103E7	1.52272E6
Savings	1114735.05	4308577.68	2.1867E6	1.29153E6
Loans	1115452.60	3915020.48	2.2779E6	1.12814E6

Source: Research, (2013)

From the findings in the above table, the maximum value for capitalization is 23,249,345.75 while 4,073,292.35 represent the minimum value for capitalization.

4.3 Regression Results

The study conducted a cross-sectional OLS linear regression on the selected independent variables over the period 2008-2012 and results of capitalization.

4.3.1 Year 2012 Analysis and Interpretations

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (capitalization) that is explained by the independent variables (savings and loans).

Table 4.3: ANOVA Statistics for 2012 Data

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.843 ^a	.711	.659	1.11328

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.189E12	2	4.095E12	26	.006a
	Residual	2.019E14	17	1.010E14		
	Total	2.101E14	19			

Source: Research, (2013)

The data findings for 2012 were analyzed and the SPSS output presented in table 2 and 3 above. From the ANOVA statistics in table 4.1, the processed data had a significance level of 0.006 which shows that the data is ideal for making a conclusion on the parameters. In this case, the coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables) R² equals 0.711 that is, Savings and Loans explain 71.1% of the variance in SMEs capitalization.

Table 4.4: Coefficients of 2012 Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.410E7	1.244E7		1.133	.0375
	Savings	.779	2.831	.192	.275	.0109
	Loans	.129	2.930	.031	.044	.0399

Source: Research, (2013)

The coefficient in the table above was used in coming up with the model below:

$$Y = 1.410E7 + 0.779 X_1 + 0.129 X_2$$

Where Y = is the dependent variable which represent the growth of SMEs measured by the level of capitalization

β_0 = Constant term/ intercept (defines value of capitalization without inclusion of predictor variables)

X_1 = Domestic credit to SME sector

X_2 = Gross domestic savings

From the finding in the above table the study found that holding Domestic credit to SME sector and Gross domestic savings constant the level of capitalization will be 1.410E7, the study also found that a unit increase in gross domestic savings will cause an increase in level of capitalization by a factor of 0.779, the study further found that a unit increase in Domestic credit to private sector will cause an increase in level of capitalization by a factor of 0.129

Table 4.5: ANOVA Statistics for 2011 Data

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.916	0.839	0.744	0.4436

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.820E12	2	3.410E12	.023	.0236a
	Residual	2.984E14	17	1.492E14		
	Total	3.052E14	19			

Source: Research, (2013)

The data findings for 2011 were analyzed and the SPSS output presented in table 2 and 3 above. From the ANOVA statistics in table 4.1, the processed data had a significance level of 0.0236 which shows that the data is ideal for making a conclusion on the parameters. In this case, the coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables) R² equals 0.839 that is, Savings and Loans explain 83.9% of the variance in SMEs level of capitalization.

Table 4.6: Coefficients of 2011 Model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	5117233	2.494E7		.205	.0516
Savings	.47	8.203	.105	.140	.0190
Loans	.246	7.291	.151	.201	.0459

Source: Research, (2013)

The coefficient in the table above was used in coming up with the model below:

$$Y = 5,117,233 + 0.47 X_1 + 0.246 X_2$$

Where Y = is the dependent variable which represent the growth of SMEs measured by the level of capitalization

β_0 = Constant term/ intercept (defines value of capitalization without inclusion of predictor variables)

X_1 = Domestic credit to SME sector

X_2 = Gross domestic savings

From the finding in the above table the study found that holding Domestic credit to private sector and Gross domestic savings constant the level of capitalization will be 5,117,233, the study also found that a unit increase in gross domestic savings will cause an increase in level of capitalization by a factor of 0.47, the study further found that a unit increase in Domestic credit to SME sector will cause an increase in level of capitalization by a factor of 0.246.

Table 4.7: ANOVA Statistics for 2010 Data

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.925	0.856	0.793	0.6527

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.650E12	2	3.325E12	9.513	.0181
	Residual	2.345E14	17	1.172E14		
	Total	2.411E14	19			

Source: Research, (2013)

The data findings for 2010 were analyzed and the SPSS output presented in table above. From the ANOVA statistics in table 4.1, the processed data had a significance level of 0.0181 which shows that the data is ideal for making a conclusion on the parameters. In this case, the coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables) R^2 equals 0.856 that is, Savings and Loans explain 85.6% of the variance in SMEs level of capitalization.

Table 4.8: Coefficients of 2010 Model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.111E7	1.153E7		.964	.0437
Savings	.647	3.121	.145	.207	.0248
Loans	.431	3.340	.090	.129	.0412

Source: Research, (2013)

The coefficient in the table above was used in coming up with the model below:

$$Y = 1.111E7 + 0.647 X_1 + 0.431 X_2$$

Where Y = is the dependent variable which represent the growth of SMEs measured by the level of capitalization

β_0 = Constant term/ intercept (defines value of capitalization without inclusion of predictor variables)

X_1 = Domestic credit to SME sector

X_2 = Gross domestic savings

From the finding in the above table the study found that holding Domestic credit to private sector and Gross domestic savings constant the level of capitalization will be 1.111E7, the study also found that a unit increase in gross domestic savings will cause an increase in level of capitalization by a factor of 0.647, the study further found that a unit increase in Domestic credit to SME sector will cause an increase in level of capitalization by a factor of 0.431.

Table 4.9: ANOVA Statistics for 2009 Data

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.895	0.801	0.693	0.6527

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.248E14	2	6.242E13	1.237	.0047 ^a
	Residual	1.010E14	17	5.048E13		
	Total	2.258E14	19			

Source: Research, (2013)

The data findings for 2009 were analyzed and the SPSS output presented in table above. From the ANOVA statistics in table, the processed data had a significance level of 0.0047 which shows that the data is ideal for making a conclusion on the parameters. In this case, the coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables) R² equals 0.801 that is, Savings and Loans explain 80.1% of the variance in SMEs capitalization.

Table 4.10: Coefficients of 2009 Model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	8596225	1.287E7		.668	.0473
Savings	.754	4.625	.191	.401	.0260
Loans	.327	5.667	.742	1.557	.0727

Source: Research, (2013)

The coefficient in the table above was used in coming up with the model below:

$$Y = 8,596,225 + 0.754 X_1 + 0.327 X_2$$

Where Y = is the dependent variable which represent the growth of SMEs measured by the level of capitalization

β_0 = Constant term/ intercept (defines value of capitalization without inclusion of predictor variables)

X_1 = Domestic credit to SME sector

X_2 = Gross domestic savings

From the finding in the above table the study found that holding Domestic credit to SME sector and Gross domestic savings constant the level of capitalization will be 8596225, the study also found that a unit increase in gross domestic savings will cause an increase in level of capitalization by a factor of 0.754, the study further found that a unit increase in Domestic credit to SME sector will cause an increase in level of capitalization by a factor of 0.327.

Table 4.11: ANOVA Statistics for 2008 Data

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.803 ^a	.641	.459	1.03306

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.952E12	2	3.476E12	1.237	.0447 ^a
	Residual	1.925E14	17	9.626E13		
	Total	1.995E14	19			

Source: Research, (2013)

The data findings for 2008 were analyzed and the SPSS output presented in table 2 and 3 above. From the ANOVA statistics in table 4.1, the processed data had a significance level of 0.0447 which shows that the data is ideal for making a conclusion on the parameters. In this case, the coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables) R² equals 0.641 that is, Savings and Loans explain 64.1% of the variance in SMEs capitalization.

Table 4.12: Coefficients of 2008 Model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.219E7	1.322E7		.922	.0454
Savings	.304	3.071	.070	.099	.0130
Loans	.865	3.290	.185	.263	.0381

Source: Research, (2013)

The coefficient in the table above was used in coming up with the model below:

$$Y = 1.219E7 + 0.304 X_1 + 0.865 X_2$$

Where Y = is the dependent variable which represent the growth of SMEs measured by the level of capitalization

β_0 = Constant term/ intercept (defines value of capitalization without inclusion of predictor variables)

X_1 = Domestic credit to SME sector

X_2 = Gross domestic savings

From the finding in the above table the study found that holding Domestic credit to SME sector and Gross domestic savings constant the level of capitalization will be 1.219E7, the study also found that a unit increase in gross domestic savings will cause an increase in level of capitalization by a factor of 0.304, the study further found that a unit increase in Domestic credit to private sector will cause increase in level of capitalization by a factor of 0.865.

4.4 Correlation

Table 13: Correlation and the coefficient of determination

	Capitalization	Domestic Savings	Domestic credit
p-Values Capitalization	1		
p-Values Domestic savings	38**	1	
p-Values Domestic Credit	34**	27**	1

Source: Research, (2013)

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

From the findings, it is clear that there is a positive correlation between gross domestic savings and level of capitalization as shown by a correlation figure of 0.38 (P-value < 0.05), it was also clear that there was a positive correlation between domestic credit to SME sector and level of capitalization with a correlation figure of 0.34 (P-value < 0.05), This shows that the predictor variables gross domestic savings and domestic credit to SME sector positively influence the level of capitalization. This indicates that gross domestic savings is more significant than domestic credit to SME sector.

4.4 Significance testing

The study utilized Chi-square test in testing the significance of the variables in the study. Chi-square is a statistical test commonly used to compare observed data with data we would expect to obtain according to a specific hypothesis. The chi-square test is always testing the null hypothesis, which states that there is no statistically significant difference between the expected and observed result. Testing of the null hypotheses in this study was based on the fact that if the calculated Chi-square associated p value is greater than $\alpha = 0.05$ confidence level ($p > 0.05\alpha$), and then we accepted the hypothesis.

The objective of the study was to determine the relationship between financial deepening and the growth of Small and Medium Enterprises (SMEs) in Kenya.

4.4.1 Relationship between domestic credit to SME sector and the level of capitalization

Table 4.14: Relationship between domestic credit to SME sector and the level of capitalization

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33.322	9	.001
N of Valid Cases	20		

Source: Research, (2013)

Table 4.14 shows that the chi-square value is 33.322 with an associated p of 0.001. Since p is less than $\alpha = 0.05$ confidence level ($p < 0.05\alpha$), the null hypothesis is rejected and therefore there is a significant relationship between domestic credit to SME sector and the level of capitalization.

4.4.2 Relationship between Gross domestic savings and the level of capitalization

The analysis also explored the relationship between Gross domestic savings and the level of capitalization.

Table 4.15: Relationship between Gross domestic savings and the level of capitalization

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	28.883	6	.002
N of Valid Cases	20		

Source: Research, (2013)

Table 4.15, indicates that the chi-square value is 28.883 with an associated p of 0.002. Since p is less than $\alpha = 0.05$ confidence level ($p < 0.05\alpha$), the null hypothesis is rejected and therefore Gross domestic savings has significant relationship with the level of capitalization.

4.5 Discussion and interpretation of the findings

The study found the following regression equations that relate the level of capitalization to domestic credit to SME sector and gross domestic savings for the five years under study.

$$2012, Y = 1.410E7 + 0.779 X_1 + 0.129 X_2$$

$$2011, Y = 5,117,233 + 0.47 X_1 + 0.246 X_2$$

$$2010, Y = 1.111E7 + 0.647 X_1 + 0.431 X_2$$

$$2009, Y = 8596225 + 0.754 X_1 + 0.327 X_2$$

$$2008, Y = 1.219E7 + 0.304 X_1 + 0.865 X_2$$

From the above equations the study found that there was a general increase in the intercept from the year 2008 to the year 2012, the factor of gross domestic savings showed a considerable increase, while domestic credit to SME sector showed a considerable decrease in the five years of the study.

From the findings, averages for capitalization, savings and loans for the 20 SMEs which was extracted from the financial and annual statements reflects an upward increase over the 5 year period, with the highest being in 2012. From the findings, it is clear that there is a positive correlation between gross domestic savings and level of capitalization as shown by a correlation figure of 0.38 (P-value < 0.05), it is also clear that there was a positive correlation between domestic credit to SME sector and level of capitalization with a correlation figure of 0.34 (P-value < 0.05), This shows that the predictor variables gross domestic savings and domestic credit to SME sector positively influence the level

of capitalization. This indicates that gross domestic savings is more significant than domestic credit to private sector.

The study findings are in line with Mckinnon and shaw (1973) who emphasized the need for financial liberalization so as to increase the level of realized savings thereby reducing interest rate and increasing investment and capital formation. Similarly, Aghion, Fally and Scarpetta, (2007) found that financial development enhances new firm entry in sectors that depend more heavily on external finance and that the smallest firms benefit the most in terms of higher entry from higher financial development. On the other hand, access to financial services can help new entrepreneurs survive beyond the first year, as evidence from Bosnia shows Demirgüç-Kunt, Klapper and Panos, (2007) and can help enterprises innovate at a faster rate Ayyagari, Demirgüç-Kunt and Maksimovic, (2011). But without credit the benefits may not be realized by the society and here lies the argument for continuous financial support for SMEs to realize its full potential. Finance also allows existing firms to exploit growth and investment opportunities, and to achieve larger equilibrium size.

From the finding the study found that a unit increase in gross domestic savings will cause an increase in level of capitalization. The study further found that a unit increase in domestic credit to SME sector will cause an increase in level of capitalization. The study findings are in line with researches (Levine et al, 2000) who have revealed that Domestic Credit to Private Sector (DCPS) has contributed significantly towards economic development and financial growth of a country.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

From the analysis and data collected, the following summary, conclusion and recommendations were made. The responses were based on the objectives of the study.

5.2 Summary of the findings

From the findings, it is clear that there is a positive correlation between gross domestic savings and level of capitalization as shown by a correlation figure of 0.38 (P-value < 0.05), it is also clear that there was a positive correlation between domestic credit to SME sector and level of capitalization with a correlation figure of 0.34 (P-value < 0.05). This shows that the predictor variables gross domestic savings and domestic credit to SME sector positively influence the level of capitalization. This indicates that gross domestic savings is more significant than domestic credit to SME sector and that through the channel of reducing SMEs' financial and growth obstacles, financial deepening can thus indirectly contribute to poverty alleviation through the growth channel.

The study findings are in line with Mckinnon and Shaw (1973) who emphasized the need for financial liberalization so as to increase the level of realized savings thereby reducing interest rate and increasing investment and capital formation. Schumpeter (1973) also stressed on the role of credit in financing innovation to bring about development also financial development creates enabling conditions for growth through either a supply-

leading (financial development spurs growth) or demand- following (growth generates demand for financial products) channel. In his theory, economic development arises as a result of innovation which is attributed to entrepreneurs. But without credit the benefits may not be realized by the society and here lies the argument for continuous financial support for SMEs to realize its full potential.

From the finding the study found that a unit increase in gross domestic savings will cause an increase in level of capitalization. The study further found that a unit increase in domestic credit to SME sector will cause an increase in level of capitalization. This therefore shows a positive relationship between financial deepening and the growth of SMEs. The study findings are in line with researches (Levine et al, 2000) who have revealed that Domestic Credit to Private Sector (DCPS) has contributed significantly towards economic development and financial growth of a country. According to Levine *et al*, (2000) the availability of external finance is positively associated with the number of start-ups an important indicator of entrepreneurship as well as with firm dynamism and innovation.

5.3 Conclusions

From the findings, the study concluded that holding Domestic credit to SME sector and Gross domestic savings constant the level of capitalization will be 1.410E7, 5,117,233, 1.111E7, 8596225 and 1.219E7 from 2012 to 2008 respectively, the study also concluded that a unit increase in gross domestic savings will cause increase in level of capitalization the study further concluded that a unit increase in Domestic credit to SME sector will cause increase in level of capitalization.

The study also concluded that small and medium sized enterprises in both developing and developed countries plays important roles in the process of industrialization and economic growth, by significantly contributing to employment generation, income generation and catalyzing development in urban and rural areas. Further the study concluded that finance whether owned or borrowed, is needed by SMES to expand so as to maximize profit.

The study also concluded that SMES often prioritize the source of financing from internal (cash flow or entrepreneurs own capital) to external sources as indicated by a positive correlation between gross domestic savings and level of capitalization figure of 0.38 (P-value < 0.05), which is higher than the P-value for domestic credit to SME sector and level of capitalization with a correlation figure of 0.34 (P-value < 0.05). This indicates that gross domestic savings is more significant than domestic credit to SME sector and also reflect that the Kenyan financial system has not reached its full potential where access to credit is available to all especially new start-ups. Finally the study concludes that financial deepening can help in alleviating SMEs' financing constraints and through this channel promote the growth of this sector.

The study concluded that there has been significant growth in the SME sector for the last 5 years that is year 2008 to 2012 and this is reflected by average capitalization obtained from the findings which reflected a positive growth from one period to the other. Growths in domestic savings by SME sector also reflect a significant level of financial deepening which is needed to boost the growth of the SME sector.

5.4 Limitation of the study

The following were the limitations of the study: The literature on this subject contained relatively few formal models presumably because it has proved hard to integrate money and financial intermediation into a standard dynamic general equilibrium framework of macroeconomics and growth.

Based on the sample used the area of study is only limited to Kenya. The findings from the study may have yielded different results if the area of study were extended over a range of countries, like East African countries the best of all being different countries of different continent.

This study used data from only the top hundred medium sized companies in Kenya. The results may have been different especially if the data was to be obtained from a sample of all the SMEs in Kenya.

The time period for conducting the study was five years. The findings of the study may have been different if the time period extended for like a period of beyond the five years of the study may be ten years this may have given different findings of the study.

Obtaining data for the study was not easy as most of the sources chosen for data collection insisted on confidentiality of the data as this was to be obtained from financial statements of the selected firms given that SMEs do not publish publicly their financial statements.

5.5 Recommendations

5.5.1 Policy Recommendations

From the findings and conclusions, the study recommends that developing economies like Kenya experiencing a significant income growth needs financial deepening to enhance both growth and the speed of financial development so as affect the growth of small and medium sized enterprises.

In view of importance of SMEs in growing the economy by creating jobs, leading innovation and entrepreneurship, the following recommendations are made: Government has to find way to encourage financial institution to lend to SMEs by providing guarantees, interest rate subsidies and other incentives. Government is to ensure proper capitalization of specialized agencies set up for SMEs financing but such agencies must be self-sustaining by raising funds from the financial market and may participate in the equity of SMEs. To reduce the problem of information asymmetry, SMEs should be required to file some form of annual return and the cost is to be burn by government. Government should reduce budget deficit and increase the share of capital project in its annual and medium and long range plan.

5.5.2 Recommendation for further studies

Although by regional standards, Kenya's financial system is relatively well developed and diversified, the study recommends the need for further studies on the major structural impediments that prevent it from reaching its full potential.

The research recommends further studies on financial deepening and growth of SMEs especially focusing on different countries like the East African countries so as to obtain more findings on SMEs growth in the region.

Another area that requires further research is a study on financial deepening and growth of all the SMEs in Kenya to find out if the findings will differ from the top 100 Medium sized firms used in this study.

Various variables affect the growth of SMEs in Kenya; further research should be done to find out whether those variables have the same impact on the growth of the others sectors of the economy.

Further research should be done to establish the credit worthiness of the SMEs in Kenya this is because the findings from the study reflect little amount of credit is obtained from the financial institutions by the selected SMEs.

REFERENCES

- Aghion, P., & Howitt, P. (1992). A Model of Growth through Creative Destruction. *Econometrica*, 60, 323–351.
- Aghion, P., Thibault, F., & Scarpetta, S. (2007). Credit Constraints as a Barrier to the Entry and Post-Entry Growth of Firms. *Economic Policy* 22, 731-739.
- Ayyagari, Meghana, Demirguc-Kunt, A., & Maksimovic, V. (2011). Firm Innovation in Emerging Markets: The Role of Finance, Governance, and Competition. *Journal of Financial and Quantitative Analysis* 46, 45-80.
- Balassa, B. (1993). *Outward Orientation: Policy Choices for the 1990s*, Basingstoke: MacMillan, pp. 3–53.
- Barro, R. J. (1991). Economic Growth in a Cross Section of Countries. *Quarterly Journal of Economics* 106, 2 (May): 407-433.
- Beck, T., Demirguc-kunt, A., & Levine, R. (2004). Finance, inequality and Poverty cross-country Evidence, *World Bank Policy Research Working Paper* 3338.
- Beck, T., Demirguc-Kunt, A., & Peria. (2006). Banking services for everyone? Barriers to bank access and use around the world. *World Bank Working Paper* 4079.
- Beck, T., Demirgüç-Kunt, A., & Vojislav, M. (2006). The Influence of Financial and Legal Institutions and Firm Size. *Journal of Banking and Finance* 30, 2995-3015.
- Beck, T., Levine, R., & Loayza, N. (2000). Finance and source of growth. *Journal of Financial Economics* 58,261-300.

- Beck, T., Levine, R., & Loayza, N. (2002). Finance and Sources of Growth. *Journal of financial Economics* ,58:261-300.
- Bencivenga, V. R., & Smith, B.D. (1992). Deficits, inflation and the banking system in developing countries: the optimal degree of financial repression. *Oxford economic papers*, Oxford University press 44(4):767-90.
- Bruhn, M. (2012). License to Sell: The Effect of Business Registration Reform on Entrepreneurial Activity in Mexico. *Review of Economics and Statistics*.
- Central Bank of Kenya, (2012). *Monetary Policy in Kenya: Evolution and current Framework*.
- Chandran, E. (2004). Research methods: *A quantitative approach with illustrations from Christian ministries*. Daystar University, Nairobi.
- Chibba, M. (2009). Financial Inclusion, Poverty Reduction and the Millennium Development Goals, *European Journal of Development Research*, 213-230.
- Sinclair S, McHard F, Dobbie L.
- Demergüç-Kunt, A., & Huizinga, H. (1999). Determinants of commercial bank interest margins and profitability: Some international evidence, *World Bank Economic Review*, Vol.13: 379-408.
- Demirguc-Kunt, A., & Levine, R. (2009). Finance and Inequality: Theory and Evidence, *NBER Working Paper 15275* (Cambridge, Massachusetts: NBER)
- Demirguc-kunt, A., Laeven, L., & Levine, R. (2004). Impact of Bank Regulations, concentration and institutions on Bank margins. *Journal of money, credit and Banking*.

- Demirgüç-Kunt, A., Love, I., & Maksimovic, V. (2006). "Business Environment and the Incorporation Decision." *Journal of Banking and Finance* 30(11): 67-93.
- Demirgüç-Kunt, A., Klapper, L., & Georgios P. (2007). "*The Origins of Self-Employment*." World Bank mimeo.
- Fischer, B. (1995). The basic problem of financing small businesses. In Brugger, E., & Rajapatirana, S. (1995). *New perspectives on financing small business in developing countries*. San Francisco, CA: ICS Press.
- Fisman, R., & Love, I. (2003), Trade credit, financial intermediary development, and industry growth. *NBER Working paper* No. 10236.
- Fisman, R., & Virginia, S. A. (2010). Regulation of Entry and the Distortion of Industrial Organization. *Journal of Applied Economics* 13, 91-111.
- Friedman, M. (1998). Markets to the Rescue. *Wall Street Journal*, October 12, 1998, p. A22.
- Goldsmith, R. (1969). *Financial Structure and Development*, New Haven: Yale University Press.
- Grossman, G. M., & Helpman, E. (1991). *Innovation and growth in the global economy*. MIT press, Cambridge MA.
- Jalilian H., & Kirkpatrick, C. (2005). Does financial development contribute to poverty reduction? *Journal of International Development* 19:7: 919 - 926
- Jayaratne, J., & Strahan, P.E. (1996). The finance-growth nexus: Evidence from bank branch deregulation. *Quarterly Journal of Economics*, 111, 639-670.
- Kaldor, N. (1957). A Model of Economic Growth, *Economic Journal* 67(268):591-624.

- Kanyingi, J. M. (2011). The impact of financial deepening on Economic Growth in Kenya (*Unpublished MBA Project*).University of Nairobi.
- Kayanula, D., & Quartey, P. (2000). The Policy Environment for Promoting Small and Medium Enterprise in Ghana and Malawi. Finance and Development research Programme *Working paper* series no. 15. Lader, P. (1996).
- Khan, S. M., & Senhadji, A.S. (2000). Financial Development and Economic Growth: An Overview. International Monetary Fund, Washington, D. C. (IMF Working Paper 00/209).
- King, M., & Levine, J. (1993). Inflation and Economic Growth. *Bank of England quarterly Bulletin*:66 76.
- King, R. G., & Levine, R. (1993). Finance and growth: Schumpeter might be right, *quarterly journal of economics*, 108,717-737.
- Kothari, C.R. (2004). *Research methodology: methods & techniques*. New Delhi: New age international (P) limited publishers.
- KPMG & Business Daily, (2012). *Kenya Top 100 Mid-Sized Companies Survey 2012*. Nairobi.
- Levine, R., Loayza, N. & Beck, T. (2000). Financial intermediation and growth: Causality and causes. *Journal of Monetary Economics* 46, 31-77.
- Levine, R. (1997b). Law, finance and economic growth. *Journal of finance intermediation*, VOL 8 PP.36-37
- Levine, R. (2004). Finance and Growth: Theory and evidence. *NBER working paper* 1766.

- Levine, R., & Zervos, S. (1998). Stock markets, Banks and Economic Growth, *American economic Review*, 88,537-558.
- Lucas, R. E. (1988). On the mechanics of economic development. *Journal of monetary Economics*, 22:3-42.
- Mckinnon, R. (1973). *Money and Capital in Economic Development*, Washington D.C: The BrookingInstitute.
- Mead, D. M., & Liedholm. (1998). The Dynamics of Micro and Small Enterprises in Developing Countries. *World Development* 26(1):61–74.
- Mehran, Hassanali, Ugolini, P., Jean P., Briffaux, George I., Tonny L., Swaray, S., & Hayward, P. (1998). Financial Sector Development in Sub-Saharan African Countries, *Occasional Paper* 169 (Washington: International Monetary Fund).
- Nanna, O. J., & Dogo, M. (1998). Structural Reform, Monetary Policy and Financial Deepening: The Nigerian Experience. *Economic and Financial Review*, Vol 36 No 2 pp 1-29.
- Ndebbio, J. (2004). Financial deepening, economic growth and development: Evidence from selected sub- Saharan African countries, *African Economic Research Consortium (AERC) Research Paper* 142, Nairobi, Kenya.
- Nnanna, O. J. (2004). Financial Sector Development and Economic Growth in Nigeria: *Economic and Financial Review* Sept. Vol. 42, No. 3.
- Nzotta, S. M., & Okereke, E. J. (2004). Financial deepening and economic development of Nigeria: *An Empirical Investigation African Journal of Accounting, Economics, Finance and Banking Research*, 5, 52-66.

- Ogujiuba, K. K., Ohuche, F. K., & Adenuga, A. O. (2004). Credit availability to Small and Medium Scale Enterprises in Nigeria. Importance of new capital base for Banks background and issues.
- Olugbenga, S. O, & Olankunle, A. P. (1998). Bank Performance and Supervision in Nigeria: Analyzing the Transition to a Deregulated Economy, *African Economic Research Consortium*.
- Peria, M. S. M. (2006). Bank financing to SMEs: what are Africas specificities? *SME Financing in Sub Saharan Africa, 1, 5-7*.
- Raddatz, C. (2003). Liquidity needs and the Vulnerability to financial underdevelopment, World Bank mimeo.
- Rajan, R., & Zingales, L. (1998). Financial development and growth. *American Economic Review*. 88(3):559-586.
- Rajan, R. G., & Zingales, L. (1998b). Which capitalism? Lessons from the East Asian crisis, *Journal of Applied Corporate Finance*, 11(3).
- Republic of Kenya (2007). *The Kenya Vision 2030*. Ministry of Planning and National Development . Government Printers
- Romer, P.M. (1986). Increasing returns and long-run growth. *Journal of political Economy* 94:1002-1037.
- Rousseau, P. L., & Paul, W. (2002). Inflation Thresholds and the Finance-Growth Nexus, *Journal of International Money and Finance*.
- Sanusi, J.O. (2003). Overview of Government's Efforts in the Development of SMEs and the Emergence of Small and Medium Industries Equity Investment Scheme

(SMEIS). *A Paper Presented at The National Summit on SMEIS Organized by the Bankers Committee and Lagos Chambers of Commerce and Industry (LCCI)*, Lagos, 10th June, 2003.

Schiffer, M., & Weder, B. (2001). Firm size and the business environment: Worldwide Survey Results, *IFC Discussion paper 43*.

Schumpeter, J. (1973). *The Theory of Economic Development*. Cambridge, Mass: Harvard

Serrao, M. A. H., & Hans, B.V. (2012). Designing a Methodology to Investigate Accessibility and Impact of Financial Inclusion (March 18, 2012).

Sessional Paper No 2 of (2005). Development of Micro and Small Enterprises for Wealth and Employment Creation for Poverty Reduction.

Shaw, E.S. (1973). *Financial deepening in economic development*. New York: Oxford University Press.

Solow, R. (1956). A contribution to the Theory of Economic Growth. *Quarterly Journal of Economics* 70 (February). University Press.

Wanyama, M. B. (2011). A Survey of challenges of financing small and medium enterprises (SMEs) in Nairobi. (*Unpublished MBA Project*). University of Nairobi.

Wurgler, J. (2000). Financial Markets and the Allocation of Capital. *Journal of Financial Economics* 58, 187-214.

APPENDICES

APPENDIX I: List of Top 100 Medium- Sized Companies 2012

- 1 ATLAS PLUMBERS AND BUILDERS
- 2 TROPIKAL BRANDS AFRIKA
- 3 KEPPEL INVESTMENTS LTD
- 4 SHIAN TRAVEL
- 5 RUPRA CONSTRUCTION CO.
- 6 POWERPOINT SYSTEMS (E.A) LTD
- 7 CHEMICAL AND SCHOOL SUPPLIES
- 8 SATGURU TRAVEL AND TOURS
- 9 RADAR LTD
- 10 KENTONS LTD
- 11 AVTECH SYSTEMS LTD
- 12 SAI PHARMACEUTICALS LTD
- 13 KUNAL HARDWARE AND STEEL
- 14 CONINX INDUSTRIES LTD
- 15 R & R PLASTIC LTD
- 16 CAPITAL COLOURS C . D LTD
- 17 ASL CREDIT LTD
- 18 KANDIA FRESH PRODUCE SUPPLIERS LTD

- 19 FURNITURE ELEGANCE LTD
- 20 MURANGA FORWARDERS LTD
- 21 BBC AUTO SPARES LTD
- 22 DIGITAL DEN LTD
- 23 XRX TECHNOLOGIES LTD
- 24 NAIROBI GARMENTS ENTERPRISE LTD
- 25 CHARLESTON TRAVEL LTD
- 26 SPICE WORLD LTD
- 27 MASTER POWER SYSTEMS LTD
- 28 SOFTWARE TECHNOLOGIES LTD
- 29 KENBRO INDUSTRIES LTD
- 30 SKYLARK CREATIVE PRODUCTS LTD
- 31 GANATRA PLANT & EQUIPMENT LTD
- 32 SECURITY WORLD TECHNOLOGY LTD
- 33 SPECIALIZED ALUMINIUM RENOVATORS LIMITED
- 34 WINES OF THE WORLD LTD
- 35 VIRGIN TOURS LTD
- 36 ARAMEX KENYA LTD
- 37 CANON ALUMINIUM FAB LTD
- 38 PANESAR'S KENYA LTD

- 39 TYRE MASTERS LTD
- 40 LANTECH AFRICA LTD
- 41 WARREN ENTERPRISE LTD
- 42 AFRICA TEA BROKERS LTD
- 43 MERIDIAN HOLDINGS LTD
- 44 DUNE PACKAGING LTD
- 45 THE PHOENIX LTD
- 46 FAIRVIEW HOTEL LTD
- 47 SPECICOM TECHNOLOGIES LTD
- 48 PUNSANI ELECTRICALS & INDUSTRIAL HARDWARE LTD
- 49 BISELEX (K) LTD
- 50 VICTORIA FURNITURES LTD
- 51 GINA DIN CORPORATE COMM
- 52 AMAR HARDWARE LTD
- 53 MELVIN MARSH INTERNATIONAL
- 54 LANOR INTERNATIONAL LTD
- 55 SYNERMED PHARMACEUTICALS (K) LTD
- 56 SAHAJANAND ENTERPRISES LTD
- 57 VEHICLE & EQUIPMENT LEASING LTD
- 58 SILVERBIRD TRAVELPLUS

- 59 WAUMINI INSURANCE BROKERS LTD
- 60 KENAPEN INDUSTRIES LTD
- 61 HARDWARE AND WELDING SUPPLIES
- 62 ISOLUTIONS ASSOCIATES
- 63 MOMBASA CANVAS LTD
- 64 EAST AFRICA CANVAS CO
- 65 TOTAL SOLUTIONS LTD
- 66 PRINT FAST (K) LTD
- 67 OPTIWARE COMMUNICATIONS LTD
- 68 DEEPA INDUSTRIES LTD
- 69 ENDEAVOUR AFRICA LTD
- 70 TRAVEL SHOPPE CO LTD
- 71 KEMA (E.A) LTD
- 72 AMAR DISTRIBUTORS LTD
- 73 PWANI CELLULAR SERVICES
- 74 SHEFFIELD STEEL SYTEMS LTD
- 75 GENERAL ALUMINIUM
- 76 CREATIVE EDGE LTD
- 77 BROLLO KENYA LTD
- 78 TRIDENT PLUMBERS LIMITED

- 79 PHYSICAL THERAPY SERVICES LTD
- 80 PRAFUL CHANDRA & BROTHERS LTD
- 81 DHARAMSHI LAKHAMSHI & CO / Dalco Kenya
- 82 MADHUPAPER KENYA LTD
- 83 UNION LOGISTICS LTD
- 84 OIL SEALS AND BEARING CENTRE LTD
- 85 SKYLARK CONSTRUCTION LTD
- 86 BIODEAL LABORATORIES LTD
- 87 WARREN CONCRETE LTD
- 88 RONGAI WORKSHOP & TRANSPORT
- 89 COMPLAST INDUSTRIES LTD
- 90 KINPASH ENTERPRISES LTD
- 91 SIGHT AND SOUND COMPUTERS LTD
- 92 DE RUITER EAST AFRICA LTD
- 93 ACE AUTOCENTRE LTD
- 94 KENYA SUITCASE MFG LTD
- 95 HEBATULLAH BROTHERS LTD
- 96 MARKET POWER INT. LTD
- 97 NIVAS LTD
- 98 SIGMA SUPPLIERS LTD

99 IMPALA GLASS INDUSTRIES LTD

100 EGEN JOINEX LTD

Appendix 11: Summary of Annual Averages used in the Analysis

Year	Capitalization
2012	12371749
2011	10176265
2010	10573008
2009	8263876
2008	9131384
	Savings
2012	2670807
2011	1746183
2010	2388965
2009	1698954
2008	2428388
	Loans
2012	2744633
2011	2083885
2010	2331146
2009	1553331
2008	2676341

APPENDIX III: DATA FOR 20 SMEs

	Capitalization	Savings	Loans
2012	13,547,674.00	3,482,353.00	5,231,394.00
2011	4,636,090.00	1,191,669.00	2,184,441.00
2010	8,805,988.10	3,203,764.76	5,074,452.18
2009	5,811,952.15	1,334,669.28	2,162,596.59
2008	6,868,670.72	3,075,614.17	4,922,218.61
2012	9,450,722.68	1,283,416.75	1,330,567.96
2011	10,053,960.30	1,166,742.50	1,188,007.11
2010	8,897,310.00	1,060,675.00	1,277,427.00
2009	6,759,702.00	1,003,517.00	1,154,220.00
2008	4,732,439.00	1,059,324.00	1,681,042.00
2012	5,611,396.00	1,559,422.35	3,664,991.34
2011	5,010,175.00	1,404,885.00	3,301,794.00
2010	3,292,328.00	1,064,642.00	1,896,909.00
2009	1,793,100.00	1,356,927.00	1,016,532.00
2008	4,659,462.75	1,278,445.35	3,408,441.95
2012	24,316,951.00	1,578,375.00	2,410,059.00
2011	25,315,675.00	1,893,545.00	2,518,992.00
2010	23,830,611.98	1,546,807.50	2,385,958.41
2009	21,265,167.00	1,817,803.20	2,317,472.64

2008	21,518,323.75	1,760,996.85	2,241,902.88
2012	8,932,000.00	5,450,469.00	1,086,153.00
2011	5,865,423.00	3,074,074.00	1,226,193.00
2010	8,038,800.00	5,068,936.17	1,020,983.82
2009	5,689,460.31	2,981,851.78	1,115,835.63
2008	7,878,024.00	4,967,557.45	1,128,097.56
2012	17761000.61	4565364.78	6858357.53
2011	6077913.99	1562278.059	2863802.15
2010	11544650.40	4200135.60	6652606.80
2009	7619469.26	1749751.42	2835164.12
2008	9004827.31	4032130.17	6453028.60
2012	12389897.44	1682559.35	1744374.6
2011	13180741.95	1529599.41	1557477.32
2010	11664373.41	1390544.92	1674706.79
2009	8861969.32	1315610.78	1513182.42
2008	6204227.52	1388773.76	2203846.06
2012	7356540.15	2044402.70	4804803.64
2011	6568339.42	1841804.23	4328651.93
2010	4316242.00	1395745.66	2486847.69
2009	2350754.10	1778931.29	1332673.452
2008	6108555.66	1676041.85	4468467.39
2012	31879522.76	2069249.62	3159587.34
2011	33188849.93	2482437.49	3302398.51
2010	31241932.31	2027864.63	3127991.47
2009	27878633.94	2383139.99	3038206.63
2008	28210522.44	2308666.87	2939134.67
2012	11709852	7145564.85	1423946.58
2011	7689569.55	4030111.01	1607539.02
2010	10538866.8	6645375.31	1338509.78

2009	7458882.46	3909207.68	1462860.51
2008	10328089.46	6512467.81	1478935.90
2012	9334347.38	2399341.21	3604430.46
2011	3194266.01	821059.94	1505079.84
2010	6067325.80	2207393.92	3496297.55
2009	4004435.02	919587.13	1490029.05
2008	4732514.125	2119098.16	3391408.62
2012	6511547.92	884274.14	916761.32
2011	6927178.64	803885.58	818536.89
2010	6130246.59	730805.07	880147.20
2009	4657434.67	691423.21	795257.58
2008	3260650.47	729874.23	1158237.93
2012	3866251.84	1074441.99	2525179.03
2011	3452010.57	967965.76	2274936.06
2010	2268413.99	733538.33	1306970.30
2009	1235445.9	934922.70	700390.54
2008	3210369.83	880848.84	2348416.50
2012	16754379.24	1087500.37	1660530.65
2011	17442500.08	1304652.50	1735585.48
2010	16419291.65	1065750.36	1643925.34
2009	14651700.06	1252466.40	1596738.64
2008	14826125.06	1213326.83	1544671.08
2012	6154148	3755373.14	748359.41
2011	4041276.44	2118036.98	844846.97
2010	5538733.2	3492497.02	703457.85
2009	3920038.15	2054495.87	768810.74
2008	5427958.53	3422647.08	777259.21
2012	11664547.31	2998305.93	4504230.23
2011	3991673.49	1026027.00	1880803.70
2010	7581955.75	2758441.45	4369103.32
2009	5004090.79	1149150.25	1861995.66
2008	5913925.48	2648103.8	4238030.22
2012	8137072.22	1105021.82	1145619.01

2011	8656459.81	1004565.29	1022874.12
2010	7660583.91	913241.17	1099864.64
2009	5820103.42	864028.13	993783.42
2008	4074629.97	912077.96	1447377.16
2012	4831411.95	1342662.64	3155557.54
2011	4313760.67	1209605.98	2842844.63
2010	2834694.40	916656.76	1633238.64
2009	1543859.1	1168314.14	875234.05
2008	4011797.42	1100741.44	2934668.51
2012	20936894.81	1358980.87	2075060.79
2011	21796796.18	1630342.24	2168852.11
2010	20518156.91	1331801.25	2054310.19
2009	18309308.79	1565128.55	1995343.94
2008	18527276.75	1516218.28	1930278.38
2012	7690452	4692853.80	935177.73
2011	5050129.20	2646777.71	1055752.17
2010	6921406.8	4364354.04	879067.06
2009	4898625.32	2567374.38	960734.47
2008	6782978.66	4277066.96	971291.99
2007	5883195.78	3796988.01	1045194.64