EFFECT OF FINANCIAL DEEPENING ON GROWTH OF SMALL AND MEDIUM-SIZED ENTERPRISES IN KENYA: A CASE OF NAIROBI COUNTY

Moses Marienga Ochanda
Masters of Business Administration in Finance, Jomo Kenyatta University of Agriculture and Technology, Kenya

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ABSTRACT

Small and medium enterprises (SMEs) in Kenya represent a vital part of the economy, being the source of various economic contributions through the generation of income, providing new job opportunities, introducing innovations, stimulating competition, and engine for employment. Present economy is known as knowledge based economy where, knowledge, information and soft assets have more importance rather than the physical assets. The role and importance of SMEs in a knowledge-based economy has been highly appreciated and acknowledged. Moreover, in the present economy, SMEs are facing tremendous challenges and threats to survive in a competitive environment. The study sought to examine the effect of financial deepening on growth of SMEs in Nairobi County. The study sought to find out the effect of financial innovation, financial sector regulation and inflation and general interest rates on growth of SMEs. It was also determine the effect of credit access on growth of SMEs in Nairobi County. The study adopted an exploratory design and applied stratified sampling to identify the 100 SMEs in Nairobi County registered by the industrialization ministry that were used in the study. Regression models were used to examine the effect of financial deepening on growth of SMEs. The study found that access to credit positively influenced the growth of 92% of SMEs. Most SMEs were found to be hindered by high cost of finance and lack of collateral for the new SMEs. Financial innovation was also found to have a strong positive influence on the growth of SMEs. High financial sector regulation, inflation and interest rates were found to hinder growth of SMEs. The study recommends for establishment of subsidized credit for SMEs and a research organ to steer ahead financial innovation as well as financial sector deregulation.

Key Words: *financial deepening, growth, small and medium-sized enterprises, Kenya, Nairobi County*

Introduction

The study sought to explore the effect of financial deepening on the growth of Small and Medium Enterprises (SMEs) in Nairobi County. SMEs are widely recognized across the world for their role in the social, political and economic development. The importance of the sector is particularly apparent in its ability to provide reasonably priced goods, services,

income and employment to a large number of people (Kauffmann, 2006). It is for this reason that there has been growing interest and concern by the government and development agencies for the improved performance and growth of the small and medium enterprises. Financial sector deepening over the years has been seen to lead to access of long term capital which deemed crucial for economic development as evidenced by the positive relationship between long term capital and economic growth (Klapper & Panos, 2007).

The Kenyan government, in early 2000, set out to revitalize the financial system and since then, a lot of initiatives have been put place aimed at deepening Kenyan financial markets. Despite the initiatives, the Kenyan capital market that has been in existence for over 50 years is still shallow, narrow and thin (Ngugi, Amanja & Maana, 2010). The Kenyan bonds market is also in its infancy stage attracting more of the government bonds compared with corporate bonds and as a result investors have relied on banks for short to medium terms loans (Ngugi & Njenga, 2005). Financial deepening in theory is seen as an important component of financial sector development and supplements the role of the banking system in economic development. Specifically, financial sector assists in price discovery, liquidity provision, reduction in transactions costs, and risk transfer (Yartey & Adjasi, 2007). Financial deepening reduce information cost through generation and dissemination of information on firms leading to efficient markets in which prices incorporate all available information (Garcia & Liu, 1999]. Moreover, deep financial markets not only avail resources to investors, but also facilitate inflow of foreign financial resources into the domestic economy and hence leading to more liquidity in the economy (Ngugi, Amanja & Maana, 2010). Aghion, Fally and Scarpetta (2007) using European countries data found that financial deepening enhanced new firm entry in sectors that depend more heavily on external finance and that the smallest size firms benefit the most in terms of higher entry from higher financial development. In addition, access to financial services has been found enterprises innovate at a faster rate and therefore provision quality goods and services (Ayyagari & Maksimovic, 2011).

Experimental evidence confirms the importance of credit access (one of results of financial deepening) for firm's growth. Banerjee and Duflo (2004) found that the availability of additional subsidized credit resulted in a proportional increase in sales rather than a substitution for other non-subsidized credit, indicating that these firms were credit constrained before receiving subsidized credit. Similarly, Zia (2008) found that small non-listed and non-group firms in Pakistan reduced their sales after they become ineligible for subsidized credit, indicating that existence of credit constraints hampers their operations; in contrast, large, listed and group firms do not reduce their sales after losing access to subsidized credit implying that they can still access financing from elsewhere. These findings confirm the importance of credit access to SMEs as opposed to big companies.

Financial deepening in USA

The US financial sector has highest depth in the world and comprises the Federal Reserve System, commercial banks, savings institutions and credit unions. The whole system is regulated at both federal and state levels. The Federal Reserve System (Fed) is the central bank of the US. Credit access in US had been considerably easier than Europe and other parts

of the world until 2006 when financial crisis struck the US economy (Winkler, 2008). On the onset of financial crisis, financial deepening globally had been predominantly viewed as a natural phenomenon in the context of economic development and a precondition of dynamic economic growth (Zia, 2008).

In US, financial deepening level were low until 1990s when competition (both domestic and international) intensified forcing financial institutions to adopt modern international standards and therefore improving financial system efficiency (Yartey and Adjasi, 2007). Backed by dynamic technological development, banks in the US and Europe were able to exploit newly introduced financial innovations on a much broader scope of financial services (including investment activities). Increasing leverage and size of the banks' balance sheets allowed for more frequent mergers and acquisitions, which made the net winners of this process to enjoy extra economies of scale. These improvements in efficiency increased capacity to generate new domestic savings and to promote further capital inflows and therefore intensifying the financial deepening (Winkler, 2008).

Financial Deepening in Europe

European financial markets are second in terms of depth after US financial markets (Allen & Gale, 2001). The debate on the importance of financial deepening on economic growth can be traced in Europe since the industrialization era. Robinson (1952) was the first scholar to advocate for deep financial sector in Europe. He believed that financial deepening led to economic growth and thereby creating a room for many studies that consequently put more pressure on European governments to deepen the financial sector. Other studies that led to development of financial sector in Europe included Petersen and Rajan (1994) that suggested that firms that have a longer relationship with a bank do have greater access to credit, controlling for a number of features of the borrowers' history. The finding by Petersen and Rajan (1995) and Berlin and Mester (1997) that financial deepening occurs as a firm's credit risk changes and Berlin and Mester (1998) that loan rate smoothing is associated with lower bank profits further intensified the government interest in deepening financial sector and hence accelerated financial sector development.

Recently, financial deepening in Europe has become a subject of great concern after the financial crisis in 2007-08. In this period (often referred to as peak of economic activity before the current crisis), some financial institution in European countries turned out to hold assets of higher volume than their host countries GDP, while high leverage was making them vulnerable to unforeseen events (Klein & Olivei, 2009). In the same time, financial investments parked often in non-transparent financial products and portfolios raised worries of contagion. Sudden turn in risk assessment has raised several questions. Has financial deepening been excessive? How did the structure of banks' balance sheets changed in the course of this process? What were its dynamics and drivers in different countries? (Winkler, 2008).

In the developing parts of Europe and USA, financial deepening has been mainly driven by foreign financial institutions. The most widely used argument for the development suggests

that the weak and poorly governed state-owned and private banks were a major cause of the financial and currency crises of the 1990s (Llewellyn, 2002). Against this background, the very fact that reputable and experienced foreign banks entered the market was interpreted as an improvement in financial sector quality and solvency (Mehl, Vespro and Winkler, 2005). The quality of financial intermediation was further enhanced by substantial efforts to upgrade the regulatory and supervisory frameworks. Again, the drive toward better regulation and supervision was at least partly motivated by the European integration process and the need to adopt EU standards (Caprio, 1997).

Financial Deepening in Kenya

Kenya has a relatively well developed financial sector which comprises 43 commercial banks, 1 mortgage finance company, 7 Deposit Taking Microfinance companies (DTMs), some 3,500 active Savings and Credit Cooperatives (SACCOs), one postal savings bank - Kenya Post Office Savings Bank (KPOSB) 125 foreign exchange bureaus, a host of unlicensed lenders, and an Association of Microfinance Institutions (AMFI) with 56 members (CBK, 2013).

Despite the abundance of financial institutions, the financial sector in Kenya is highly concentrated. Four financial institutions, Equity Bank, Cooperative Bank, Kenya Post Office Savings Bank and Kenya Commercial Bank, account for two thirds of all bank accounts which numbered 14 million by mid 2012. In the traditional microfinance sector, than 70% of the market is made up of Kenya Women Finance, Faulu Kenya and Jamii Bora. In addition, similar high levels of concentration are seen with SACCOs (Cracknell, 2012). In spite of the global recession and credit crisis, the financial sector in Kenya continues to enjoy healthy levels of growth, an indication of increased financial deepening.

Small and Medium Enterprises in Kenya

According to Kenya Economic Survey 2008 (Republic of Kenya, 2008), out of the total new jobs created, micro, small and medium enterprises (MSME)s created 426.9 (89.9%) thousand new jobs out of a total of 474.5 thousand 79.9% new jobs out of 543.3 thousand new jobs created in Kenya (Economic Survey, 2009). In the same year, the sector contributed KSh. 806,170 million of GDP which is 59 percent of total GDP (RoK, 2009). Job creation in this sector went up by 5.1 percent in 2011. The increase was 445,900 indicating a higher growth in absolute terms compared to the increase of 437,300 registered in 2010. Analysis by province shows that Nairobi County recorded a 5.4 increase (RoK, 2012).

The SMEs sector is notoriously volatile and experiences a high degree of business closure and shrinkage (Baard & Van Den Berg, 2004; Eriksson & Kuhn, 2006) and as a result the government has been making numerous efforts to assist the development of the SME sectors. The high SMEs motility rate implies that SMEs are limited in their ability to create long-term sustainable employment and may also be responsible for the greatest number of job and wealth losses (Ahwireng, 2003). Despite the many challenges and difficulties of the SMEs, the sector has great potential for increased employment creation (Miller, 2003). Some studies

carried out indicate that most SMEs fail as a result of lack of appropriate financing and appropriate financial services (Amyx, 2005).

Statement of the problem

In Kenya, the SME sector is considered as one of the major contributors to the economy by providing income and employment to a significant proportion of the population (Ngugi & Bwisa, 2013). The Kenya Economic Survey report (RoK, 2009) shows that the SME sector contributed 79.8% of new jobs created in year in Kenya 2009. In 2012 the SME segment contributed over 80% of the countries employment with majority of new jobs being created in that sector (430,000 out of 503,000 new jobs created in 2011) and contributes about 70% to the country's GDP (RoK, 2012).

Despite the SMEs importance in the Kenyan economy, Sessional Paper No. 2 of 2005 indicates that three out of five businesses fail within the first three years of operation (RoK, 2005). The failure of SMEs lead to loss of jobs and consequently increased insecurity, low liquidity in the economy, and decline in economic growth (OECD, 2009). Would low financial deepening levels be the cause of SMEs failure rate in Kenya? The Financial Access (2009) survey conducted in Europe found a strong positive correlation between ease of financial access and growth of SMEs (World Bank, 2009). Klapper & Panos (2007) using Turkish data found positive relationship between long term capital and economic growth. Ngugi, R. et al (2010) studying on the capital market, financial deepening and economic growth in Kenya established partial relationship between financial deepening and growth but never incorporated SMEs as key players in economic growth and how they are affected by financial deepening levels in the country.

This study therefore sought to indentify the influence of financial deepening on growth of SMEs in Nairobi County and also bridge the gap that exists in the area of financial deepening and growth of MSEs in Nairobi and Kenya at large.

General Objectives

The general objective of this study was be to determine the effect of financial deepening on the growth of SMEs in Nairobi County

Specific objectives

1. To find out how credit access affect growth of SMEs in Nairobi
2. To determine the effect of financial innovations on growth of SMEs in Nairobi
3. To establish how financial sector regulation affects growth of MSEs in Nairobi
4. To find out the influence of inflation rates and general interest rates on the growth of SMEs Nairobi

Theoretical review

A theoretical framework can be defined as a collection of interrelated ideas based on theories. It is a reasoned set of prepositions, which are derived and supported by data or evidence. A theoretical framework accounts for or explains phenomenon (Kombo& Tromp, 2006). The study was be guided by a number of theories that have been developed to explain the relationship between financial deepening elements/ variables and economic growth.

Conventional theory of Financial Deepening

The theory was proposed by Shaw (1973) and highlights the importance of credit access on growth of SMEs. The theory is based on the view that financial deepening is a necessary pre-condition for economic growth. It rests on premises that financial deepening enhances credit access which offers the necessary financing to firms in the economy and hence economic growth. This theory contends that well functioning financial sector promotes overall economic efficiency, create and expand liquidity, mobilize savings, enhance capital accumulation, transfer resources from traditional (non-growth) sectors to the more modern growth inducing sectors, and also promote a competent entrepreneur response in these modern sectors of the economy (Shaw,1973).

The theory was advanced by many prominent economists like McKinnon (1973), Fry (1978), Diaz-Alejandro (1985), and Moore (1986). Earlier, Hicks (1969) believed that industrial revolution in England in the 18th Century was not due to new technological inventions. According to him, financial reforms leading to financial deepening was the main variable behind the British industrial revolution. Empirical work by Gelb (1989), Ghani (1992), King and Levine (1993), DeGregorio and Giudotti (1995), and Levine and Zervos (1996) have all lent support to this theory in the case of many developing (and developed) countries. The statistical basis of this apparent support is that, almost without exceptions, the empirical results reveal positive and statistically significant coefficients on the proxies of financial deepening in the real economic growth equations. Scholars including Robinson (1952) and Patrick (1966) have long rejected this theory on purely theoretical grounds. They argue that financial deepening is merely a by-product or an outcome of growth in the real side of the economy, a contention recently revived by Ireland (1994) and Demetriades and Hussein (1996).

Schumpeterian Theory on Innovations

Schumpeter's (1934) theory of innovative profits emphasized the role of entrepreneurship (his term was entrepreneurial profits) to seek out of opportunities for novel value and generating activities which would expand (and transform) the circular flow of income through risk taking, pro activity by the enterprise leadership and innovation which aims at fostering identification of opportunities through intellectual capital of entrepreneur to maximize the potential profit and growth.

Schumpeterian growth theory goes beyond economist theory by distinguishing explicitly between physical and intellectual capital, and between saving, which makes physical capital

grow, and innovation, which makes intellectual capital grow. It supposes that technological progress comes from innovations carried out by firms motivated by the pursuit of profit, and that it involves what Schumpeter called "creative destruction". That is, each innovation is aimed at creating some new process or product that gives its creator a competitive advantage over its business rivals; it does so by rendering obsolete some previous innovation; and it is in turn destined to be rendered obsolete by future innovations (Schumpeter, 1934).

Schumpeter, as cited by Swedberg (2000), pointed out economic behaviour is somewhat automatic in nature and more likely to be standardized, while entrepreneurship consists of doing new things in a new manner, innovation being an essential value. As economics focused on the external influences over organizations, he believed that change could occur from the inside, and then go through a form of business cycle to really generate economic change. He set up a new production function where the entrepreneur is seen as making new combinations of already existing materials and forces, in terms of innovation; such as the introduction of a new good, introduction of a new method of production, opening of a new market, conquest of a new source of production input, and a new organization of an industry (Casson, 2002).

Openness Theory of Financial Deepening

This is a neoclassical models suggest that financial regulation brings major benefits, such as, sharing risks among the investors, and capital flowing towards highly productive sectors. The theory was put forward by Levine and Renelt (1992). The theory argues that increased openness for financial development may be associated with greater risks, including exposure to external shocks and foreign competition (Huang and Temple, 2005). This may encourage the development of financial markets that can be used to diversify such risks, and that allow firms to overcome short-term cash flow problems or adverse shocks. The cross-country study of Levine and Renelt (1992) identified a robust correlation between openness and the share of investment in GDP and showed that, if trading economies have also high investment, this could promote financial development. While more open financial markets can contribute to economic development, it is the openness of financial markets that can make developing countries more vulnerable to financial disruptions (Kaminsky and Schmukler, 2001, and 2002).

The experience of several emerging market countries that have liberalized, in particular in South Asia, Latin America and in some countries in Eastern Europe show that the rapid process of financial sector liberalization, before the crisis, facilitated borrowing by domestic firms, large flows of capital and growth in lending and investment. When the crisis came, these forces of growing imbalances reversed, creating instability in the economies of these countries. Foreign financial service providers can be rejected or kept in a tight control by governments for following the possible reasons: infancy of the domestic financial system; probability of market dominance of foreign providers, due to their advanced technology or availability of financial resources and experience that may create dominance in the market, but also absence of commitment and outflows from domestic market (Schmukler, 2013).

Endogenous growth theory

The theory relates economic growth to the various macroeconomic variables like inflation and interest rates. This theory claims that financial deepening follows economic growth as a result of increased demand for financial services which in turn affects inflation and general interest rates. This explanation was originally advanced by Robinson (1952). This theory also suggests that financial intermediation has a positive effect on steady-state growth and that government intervention in the financial system has a negative effect on economic growth and so is inflation and interest rates (Ghali, 1999). This view is based on the observation that the ratio of the broad money stock to nominal GDP, which is a standard measure of financial development used in the literature, is also the inverse of the velocity of circulation of the broad money stock. Hence, a positive correlation between the level of financial development and the real GDP may be due to a downward trend in the velocity of money circulation. If this is true, then the positive relationship between financial development and real GDP may reflect an income elasticity of the demand for money with respect to income, which is greater than one. Consequently, according to this argument the direction of causality will be from real GDP to financial development and that through the demand for money (Ghali, 1999).

Research Methodology

Research Design

Research design is the general plan of how one goes about answering the research questions. A sample design will be utilized for the data to collection from target population in Nairobi. Research design is the general plan of how one goes about answering the research questions. It is important to highlight the two main methods when investigating and collecting data - quantitative and qualitative. A quantitative approach is strongly linked to deductive testing of theories through hypotheses, while a qualitative approach to research generally is concerned with inductive testing (Saunders et al., 2003).

The main focus of this study was quantitative. However qualitative approach was also used in order to gain a better understanding and possibly enable a better and more insightful interpretation of the results from the quantitative study. This study used descriptive and exploratory design. This design was justified since the study sought to explore the effect of financial deepening on growth and SMEs. Descriptive design allowed analysis of the relations of variables under study using linear regression.

Population

Target 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, and events, group of things or households that are being investigated. Data available from the Ministry of Trade and Ministry of Industrialization, (2011) reveal that there are 2500 SMEs in Nairobi, Manufacturing, 1500 SMEs Trading and 560 SMEs in the service industry (RoK, 2012). This makes a total of 4,560 SMEs. Therefore the study targeted

4,560 SMEs in Nairobi County. The respondents were the owners, managers and senior managers.

Sampling Techniques

The sampling plan describes how the sampling unit, sampling frame, sampling procedures and the sample size for the study (Saunders et al., 2003). The sampling frame describes the list of all population units from which the sample will be selected (Cooper & Schindler, 2003). The sample size depends on what one wants to know, the purpose of the inquiry, what is at stake, what was useful, what had credibility and what can be done with available time and resources (Paton, 2002). The proportionate sample for the study was 100 SMEs which were selected using a stratified random sampling technique from the identified sample in Table 3.1. Orodho (2003) states that stratified sampling are applicable if a population from which a sample is to be drawn does not constitute a homogeneous group.

Data Collection Method

The study data was obtained from primary and secondary sources. The secondary data obtained from information published by the Capital Markets Authority, Central Bank of Kenya and any other reliable source which will provide the necessary information. Primary data was obtained by use of questionnaire to collect the required data. A questionnaire is a data collection instrument that sets out in a formal way the questions designed to elicit the desired information. It consisted of a list of structured questions, un-structured questions and Liekert rating scales relating to the field of inquiry with space provided for selection of choices and explanatory answers. Close ended questions have the advantage of collecting viable quantitative data while open-ended questions allow the respondents freedom of answering questions and the chance to provide in-depth responses. Questionnaire is preferred because it is efficient, cheap and easy to be administered. The questionnaires will be administered through drop and pick to identify respondents with a brief explanation on their purpose and importance.

Data Analysis

Before processing the responses, the completed questionnaires were edited for completeness and consistency. The data was then coded to enable the responses to be grouped into various categories. A descriptive analysis was employed to analyse data. This include, table, charts, graphs, percentages and frequencies. Multiple regressions were used to measure the quantitative data which was analysed using the Statistical Package for Social Sciences (SPSS) version 16. Tables and other graphical presentations as appropriate were used to present the data collected for ease of understanding and analysis. This generated quantitative reports through tabulations, percentages, and measure of central tendency. Cooper and Schindler (2003) notes that the use of percentages is important for two reasons; first they simplify data by reducing all the numbers to range between 0 and 100. Second, they translate the data into standard form with a base of 100 for relative comparisons.

Research Results

Overall regression analysis

The linear regression analysis models the linear relationship between the dependent variable which is growth of SMEs and independent variables which are Credit access, financial innovation, financial sector regulation and inflation and general interest rates. This analysis was to achieve the study general objective which was to determine the effect of financial deepening on the growth and development of SMEs in Nairobi County

The coefficient of determination R^2 and correlation coefficient (r) shows the degree of association between Variables and growth of SMES in Nairobi. The results of the linear regression indicate that R^2= 0.805 and R= 0.897 this is an indication that there is a strong relationship between credit access, financial innovation, financial sector regulation, inflation and interest rates and the growth of SMEs in Nairobi.

Table 1: Overall Model

Model	R	R Square
1	0.897	0.805

Table 2 below indicates that P value = 0.000 which is less than 5%. This shows that the overall model is significant. It further implies that credit access, financial innovation, financial sector regulation, inflation and interest rates have a significant effect on the growth of SMES in Nairobi.

Table 2: Overall Model ANOVA

Model		Sum of Squares	df	Mean Square	Sig.
1	Regression	19.912	4.000	4.978	0.00
	Residual	0.000	0.000		
	Total	19.912	4.000		

a. Predictors: (Constant), Inflation & interest rates, Financial sector regulation, Financial innovation, Credit access

b. Dependent Variable: SME growth

Table 3 below shows the overall model coefficients and implies that the overall model takes the form of Y=β0+ β1X1+ β2X2-β3X3- β4X4+E where Y is SME growth, X1 credit access, X2 Financial innovation, X3 financial sector regulation, X4 general inflation and interest rates. SMEs growth is expressed as a percentage of previous year, ease of credit access and financial sector regulation rated using codes 1-5 and 1-10 respectively where the smaller the rating the easier the

better and financial innovation determined by the number of new financial products and process in an year. Annual general rates and inflation were determined from the rates released by central bank of Kenya and an annual average of the tow obtained. The results of the overall model are in line with findings on research done in Kenya by Waweru (2012) that lack of access to credit negatively affected SMEs growth and those of Ngugi et al (2010) that Kenya's financial sector were highly regulated, financial deepening levels still low and had negative effect on economic growth and hence SMEs.

Assuming an error of 0, the model will be: Y=110.02 + 1.44 X1+ 0.18 X2-11.32 X3- 0.97 X4

Table 3: Overall model Coefficients

Model		Un-standardized Coefficients		P-Value
		B	Std Error	
1	(Constant)	110.022	2.465	0.024
	Credit Access(X1)	1.441	5.374	0.041
	Financial innovation(X2)	0.189	4.115	0.020
	Financial sector regulation(X3)	-11.318	3.342	0.037
	Inflation & interest rates(X4)	-0.971	6.143	0.032

a. Dependent Variable: SMEs growth

Factor Analysis

Factor analysis was performed to identify the patterns in data and to reduce data to manageable levels (Field, 2006). The factor analysis analyzed the factors that measured business credit access, financial innovation, regulation, inflation and SMEs growth. The results were generated using the rotational Varimax methods to explore the variables contained in each component for further analysis. Factors with Eigen values (total variance) greater than 0.5 were extracted and coefficients below 0.49 were deleted from the matrix because they were considered to be of no importance. The factor loadings are the correlation coefficients between the variables and factors (Farrar & Glauber, 1967).

Factor analysis is a multivariate statistical method whose primary purpose is data reduction and summarization (Hair et al., 1987). By using factor analysis, a factor loading for each item and its corresponding construct was determined. In order to verify that the items tapped into their stipulated constructs, a principal components analysis with a VARIMAX rotation was executed. The items were forced into three factors and the output was sorted and ranked based on a 0.5 loading cut off. Typically, loadings of 0.5 or greater are considered very significant (Hair et al., 1987).

The VARIMAX rotation was used because it canters on simplifying the columns of the factor matrix. With the VARIMAX rotational approach, there tends to be some high loadings (i.e. closer to 1) and some loadings near 0 in each column of the matrix. The logic is that interpretation is easiest when the variable-factor correlations are either closer to 1, thus indicating a clear association between the variable and the factor, or 0 indicating a clear lack of association (Hair et al., 1987). Only the items that loaded on their corresponding factors at

levels of 0.5 or greater were retained for the rest of the analysis. These items are highlighted in the last column. Items were not retained because they did not load on any factor with a value of 0.5 or greater; loaded on the wrong factor; or had cross-loadings on two factors. The analysed data confirmed that all the four indicators of financial deepening; credit access, financial innovation, financial sector regulation, inflation and general interest rates significantly affected SMEs growth as shown by test of significance, ANOVA and coefficient of determination. The results of the overall model are in line with findings on research done in Kenya by Waweru (2012) that lack of access to credit negatively affected SMEs growth and those of Ngugi et al (2010) that Kenya's financial sector were highly regulated, financial deepening levels still low and had negative effect on economic growth and hence SMEs.

Summary of the Findings

The study sought to investigate the effect of financial deepening on the growth of SMEs in Kenya. Specifically, the study investigated the effect of credit access, financial innovation, financial sector regulation, inflation and general interest rates on SMEs growth. The empirical literature showed that credit access is a key determinant of SMEs growth and most specifically, the small SMEs. Other literature revealed that SMEs have very low survival rate whereby the collapse ratio of SMEs is alarming for developing countries as well as developed countries. The stratification was based on the type of business that the SMEs owners were operating. This comprised of trade, manufacturing and services.

What is the effect of access to credit on growth of SMEs in Nairobi County?

The finding of the study revealed that credit access positively influences the growth of Small and Medium sized Enterprises in Kenya (SMEs) in Nairobi County. Results of the inferential statistics such as ANOVA show that ease of credit access which is a component of financial deepening has a major positive significance contribution to the growth of SMEs in Nairobi. Further, 82% of the SMEs were found to be hindered from access to credit by high cost of finance to a very great extent and collateral. However, access to credit was found to have become easier since 2009 due to increased number of financial institutions leading to more competition and improved financial products and processes.

How do financial innovations affect the growth of SMEs in Nairobi County?

The study found out that financial innovations have a great positive influence the growth of SMEs in Nairobi County. According to the findings of the study, financial innovation, which is an element of financial deepening, can be a key lever for the growth of SMEs in Nairobi. 94% strongly agreed that new processes in financial sector contributed positively to SMEs growth which was confirmed by the coefficient of determination of 70.6%.

Does financial sector regulation affect growth of SMEs in Nairobi County?

The finding of the study indicates that financial sector regulation influences the growth of SMEs in Nairobi County. According to the findings of the study, financial sector regulation, which is a key determinant of financial deepening, has a significant influence on the growth

of SMEs. Stringent financial regulation was found to lead to negative SME growth. Kenya's financial sector regulation was found to be still high and limiting SMEs access to financing.

What is the influence of inflation and interest rates on growth of SMEs in Nairobi County?

According to the findings of the study, general interest and inflation rates influence the growth of SMEs in Nairobi County. However, the effect is not as large as for the other variables researched. When regressed alone, general interest and inflation rates were observed to be marginally positively related to growth of SMEs. When studied with other factors, the macroeconomic variables were seen to be negatively related with growth of SMEs.

The overall effect of the variables

The study findings showed a great influence of all the four variables to the growth of SMEs. The study found out that there was 80.5% of corresponding change in the growth of SMEs for every change in all the four predictor variables jointly. Test of overall significance of all the four variables jointly, credit access, financial innovation , financial sector regulation, inflation and general interest rates using ANOVA, at 0.05 level of significance found the model to be significant with a standard error of 2.465.

Conclusions

The aim of this study was to explore the influence of financial deepening on growth of SMEs in Nairobi County. Based on previous studies, the components of financial deepening were expected to have positive relation with growth of SMEs in Nairobi County. The output given from the findings indicate that there is a significant positive relationship between the components of financial deepening; namely ease of credit access, financial innovation, financial sector regulation, inflation and general interest rates with growth of SMEs. The findings also indicated that credit access have been a major contributor towards the growth of SMEs in Nairobi County.

Majority of SMEs (92%) were seen to be hindered from access to credit by high cost of finance, that is, the legal fees, insurance premium and high interest rates. Lack of collateral was also observed to be a key hindrance to young SMEs in accessing credit. These findings were in line with findings by Waweru, (2012) that cost of finance in Kenya is still high therefore hindering SMEs' access to financing.

Recommendations

The study is a justification of the fact that SMEs are very important for both developed and developing economies in employment creation and economic growth. In addition, SMEs have been found to have very high mortality rates and as a result, measures to cope with the mortality are vital. In line with the study objectives and the findings of this study, the following are the recommendations:

1. Access to credit was found to contribute greatly to SMEs growth. This could be out of the fact that unlike established companies, most SMEs do not have goodwill with banks and therefore, their access to financing is limited due to lack of collateral and previous history. The study recommends for establishment of a fund that would be advancing subsidized credit to SMEs. This will deal with the two issues hindering SMEs access to credit for SMEs, namely; high cost of finance and collateral.
2. Financial innovations were observed to lead to deep financial markets and positively affecting SMEs growth. As a result, the study recommends for financial institutions to invest more on research and development as to steer more financial innovations. The institutions can form a joint body for research which the government can give subsidies and grants.
3. Kenyan financial sector was found to be highly regulated and hindering access to credit for SMEs. Consequently, the study recommends for more deregulation of Kenya's financial sector. In achieving this, the Central Bank of Kenya should benchmark with developed nations to establish the optimal regulation since it involves a delicate balance in determining the best regulation levels.
4. For years 2009 to 2013, annual inflation and general interests were seen to be very high and negatively affecting SMEs growth. The study recommends the macro policy makers to develop policies aimed at lowering interest and inflation rates as well as creating a stable macroeconomic environment so as to stimulate economic growth.

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