

# **EFFECT OF DEVELOPMENT FINANCING ON THE GROWTH OF MICRO, SMALL AND MEDIUM ENTERPRISES FUNDED BY KENYA INDUSTRIAL ESTATES IN NAKURU COUNTY, KENYA**

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## **Abstract**

*There are many micro, small and medium enterprises (MSMEs) that fail to take off, others report losses, others record declining profits and indeed a good number of them collapse even before breaking even. Lack of access to long-term credit facilities forces MSMEs to rely on high cost short-term finances. The study aimed to determine the effect of development financing (loan repayment period and collateral requirements) on the growth of MSMEs funded by Kenya Industrial Estates (KIE) in Nakuru County. A cross-sectional research design was employed. The study population constituted 179 employees working with MSMEs funded by KIE in Nakuru County. A sample of 65 respondents was obtained using simple random sampling method. A structured questionnaire was used to collect data. Descriptive and inferential statistics were used aided by SPSS. The study revealed that collateral requirements negatively influenced growth of MSMEs funded by the KIE while loan repayment period positively influenced the said growth. The study inferred that MSMEs obtained long-term loans from KIE and that loan repayment was determined by the amount of loan procured and contractual agreement between KIE and the borrower. It was recommended that government should channel more funds to KIE to enable the corporation to finance more businesses and thus enhance economic growth.*

*Keywords: Collateral requirements, development financing, Kenya Industrial Estate, loan repayment period, MSMEs*

## INTRODUCTION

In the modern business environment, business entities require adequate financing in order to trade profitably, competitively and more so to sustain growth. Development financing aims at providing much needed funds to business entities for the sole purpose of igniting and sustaining growth. Development finance institutions such as microfinance institutions, revolving loan funds and community development financial institutions provide funds in form of high risk loans, equity positions and risk guarantee instruments among others to business entities (Levere, Schewke & Woo, 2006).

It is observed that in the United Kingdom, micro, small and medium enterprises obtain finances for development from different sources. These finances include community development finance which supports start-ups and established enterprises that cannot access finance from other sources such as banks. Enterprise finance guarantee loan facilities also provide additional lending to viable SMEs that lack required collateral or have no proven track record for commercial loans. Other important financing channels include the business finance partnership that aims in increasing supply of capital to enterprises, business angel co-investment funds which is available for high growth potential SMEs, UK innovative investment fund that finances digital technologies, advanced manufacturing among others to innovative businesses that have significant growth potential (Government of United Kingdom, 2013).

It is acknowledged that SME financing is crucial for growth and development of Nigerian economy (Gbandi & Amissah, 2014). In the recent past, financing for SMEs has been a challenge and has resulted in the underperformance of the enterprises and sector in general. It is noted that proper and adequate financing is necessary for leveraging the small and medium enterprises. According to the authors, SMEs have a wide array of development financing options. This is not limited to loans provided by credit institutions established by the government. Such credit institutions include the Nigerian Bank for Commerce and Industry, National Economic Reconstruction Fund, Community banks among others. In addition, SMEs enjoy funding from credit guarantee schemes spearheaded by the Central Bank of Nigeria, where Naira 200 billion credit kitty is granted to SMEs for their operations and growth. The directive by the Central Bank of Nigeria that requires all banks to set aside 10% of their profit after tax for promotion of SMEs has boosted development of the enterprises. Other financing programmes for SMEs include the agricultural credit guarantee scheme fund that advances loans to societies and farmer groups and cooperatives categorized as SMEs. The international development agencies such as the International Finance Corporation (IFC), African Development Bank (AFDB) and Department for International Development have significantly funded SMEs in the country. For instance it is noted that IFC invested approximately \$400

million in First Bank of Nigeria, First City Monument Bank and GT Bank for the support of SMEs in 2010 (Omorogbe, 2011) and AFDB approved \$700 million loan programs for SMEs (Mungcal, 2011). Venture capital, business angels also serve as important additional financing for the enterprises (Gbandi&Amisshah, 2014).

In Kenya, it is observed that non-governmental organizations have been involved in providing finance to microenterprises but due to their inexperience in financial intermediation, high credit costs and limited financial resources have constrained the growth of these enterprises. Rather, credit institutions such as commercial banks, development finance institutions, savings and credit organizations and rotating savings and credit associations continue to provide financial support for the development and growth of the small and microenterprises. Particularly, Sidian Bank and Barclays bank of Kenya have supported both large and small enterprises by providing affordable loans (Afande, 2015).

Micro and Small Enterprises (MSEs) vary in different countries depending on the criteria used to classify the enterprises such as the number of employees, total assets and investment level, among others. According to Sherazi, Iqbal, Asif, Rehman et al (2013) these business enterprises are crucial in economic growth. It is noted that micro, small and medium enterprises contribute to 40% of the annual gross domestic product of Pakistan (SMEDA, 2010). It is further noted that the sector contributes to 24% to national manufacturing exports and employees approximately 21 million people in the country. The foregoing reaffirms the essence of SMEs in Pakistan. However, the sector has been constrained by internal and external factors that have stifled its productivity and development. These include the uncertain business environment brought about by high inflation rate and lack of foreign direct investment due to terrorism (Sherazi, et al, 2013).

SMEs in Kenya engage in different activities such as tourism, agriculture, telecommunication among other activities across the country (International Labour Organization, 2008). It is acknowledged that SMEs in different sectors contribute to the economic growth of the country, reducing unemployment level through creating jobs (Zachary, 2013). However, these enterprises have been plagued by a number of factors and key among them is lack of access to credit (Muguchu, 2013). In certain circumstances, credit may be available but to procure the required credit becomes challenging.

Kenya Industrial Estates (KIE) Limited was established in 1967 as a limited liability company according to the Companies Act, Cap 486 of the laws of Kenya. The aim of the entity is to address indigenization of businesses, capital formation, regional dispersion of wealth, and exploitation of local resources. This is achieved through provision of industrial sheds, subsidized credit and improvement of entrepreneurial skills to indigenous owned Micro, Small and Medium

Industries (MSMIs) with special focus on rural industrial development. Today, KIE has 37 branches country wide, and is represented in almost every County (KIE Ltd, 2014).

The KIE has a number of crucial mandates. These include indigenize industrialization through exploitation of local resources thus creating industries; provide work space through development of industrial estates; entrepreneurship development; provide financial support and capital formation; equitable regional dispersion of wealth; promote economic growth; poverty reduction through wealth creation; creation of employment; and also expansions or modernization or rehabilitation of industries (KIE Ltd, 2014). The KIE is run like a programme of nurturing MSMEs to enable them to be self-sustenance through technical and financial assistance.

### **Statement of the Problem**

It is quite clear that small and medium enterprises are a source of livelihood to millions of Kenyans. The firms also play a fundamental role in economic development of the country through tax remittances and jobs creation. As such, the sector is a very important area that elicits a lot of interest particularly in respect to its growth. There are many micro and small enterprises that fail to take off, others report losses, others record declining profits and indeed a good number of them collapse even before breaking even. There are several reasons that are attributed to the foregoing challenges. Inaccessibility of capital, either start-up capital, working capital, or both is one of the challenges affecting these firms.

This is concurred by Wanjohi (2012) who observes that some of the key issues facing entrepreneurs in this sector include lack of access to credit especially long-term credit, high cost of credit, high bank charges and fees. It is noted that, lack of access to long-term credit facilities forces MSMEs to rely on high cost short-term finances. It is further reported that, in Kenya SMEs albeit the fact that they have a lot of growth potential, they face a mired of challenges on their road to success (Withaka, 2016). The author further indicates that 70% of SMEs lack access to medium and long-term finance; a fact that creates an SME funding gap of more than US\$ 140 billion in Africa alone. Close to 90% of SMEs in Kenya face cash flow problems which include delayed payments from their suppliers. To cap it all, MSMEs are faced by the challenge of raising initial capital, and also lack access to loans from financial institutions which ultimately limit their growth.

The foregoing affects, for instance, the freedom of choice and also limiting the number of alternatives available to MSMEs. Kenya Industrial Estates is a State corporation that was incepted with one of its major purposes being financing micro, small and medium enterprises (MSMEs) in the country. Accessibility of the aforesaid financing is subject to abiding to strict prerequisites. Indeed, Wanjohi opined that even where credit is available, SMEs may lack

freedom of choice due to the fact that lending conditions may oblige the purchase of heavy, immovable plant and equipment that could possibly serve as collateral. As initially indicated the SME sector is very fundamental. Therefore, it was imperative to examine how development financing provided by the KIE affects growth of micro, small and medium enterprises.

### **Objectives of the Study**

The study examined both the general and specific objectives as hereby stated.

#### **General Objective**

To determine the effect of development financing on the growth of micro, small and medium enterprises funded by Kenya Industrial Estates in Nakuru County, Kenya.

#### **Specific Objectives**

- i. To analyze the effect of loan repayment period on the growth of micro, small and medium enterprises funded by Kenya Industrial Estates in Nakuru County
- ii. To establish the effect of collateral requirements on the growth of micro, small and medium enterprises funded by Kenya Industrial Estates in Nakuru County

### **Research Hypotheses**

**H<sub>01</sub>:** There is no significant effect of loan repayment period on the growth of micro, small and medium enterprises funded by Kenya Industrial Estates in Nakuru County

**H<sub>02</sub>:** There is no significant effect of collateral requirements on the growth of micro, small and medium enterprises funded by Kenya Industrial Estates in Nakuru County

### **Theoretical Review**

In this section, theories pertinent to development financing and firm growth are reviewed and discussed. The reviewed theories include credit market theory and the theory of growth of firm.

#### **Credit Market Theory**

The credit market theory states that if collateral and other requirements or restrictions remain given, the rate of lending determines the loan amount advanced by banks. Therefore, additional risk to projects financed through bank loans necessitates the lender to add risk premium on the lending rate in order to shield against the additional risk and risk of default. Indeed, Ewert, Szczesny and Schenk (2010) note that there exists a positive relationship between the interest rate charged on loans and default. This suggests that high interest rates can influence default especially by small and medium enterprises.

The theory further argues that collateral does not influence the lending rate. Risky borrowers wishing to obtain lower interest credit as borrowers with lower risks have to pledge more collateral in order to lower the risk profile and therefore obtain credit at lower risk premium. However, borrowers have more information concerning their risk profile and these results to

moral hazard and adverse selection where lenders charge exorbitant interest rates to shield against default. High interest rates may scare away low risk borrowers (Owino, 2014). Credit market theory is relevant to both lending institutions and borrowers such as small and medium enterprises. The enterprises can influence the borrowing rate by pledging more collateral thus reducing the risk premium charged and creating relationships with the lender in order to enhance trust hence access and procure credit.

### **Theory of Growth of Firm**

The theory of growth of firm was invented by Penrose (1959). The theory states that the bottom line is not whether a particular firm can grow; rather it is, assuming that some firms can grow, the focus should be on the principles governing their growth and how fast and long they can grow. Accordingly, the theorist observes that resources do influence the growth and direction of expansion of a firm.

According to Pitelis (2002), the firm growth theory has a close nexus with the resource-based view of a firm. Penrose had defined resources, the services they offer, and how they create growth and heterogeneity within a sector. She had stated that resources include physical things a firm buys, leases, or produces for its own use and the people hired on terms that makes them effectively part of the entity. On the other hand, services are the contribution the foregoing resources can make to the productive operations of the firm. However, such scholars as Rugman and Verbeke (2004) have disputed these definitions. These scholars argue that the hitherto definitions have remained ambiguous. However, regardless of the clarity or ambiguity of the definitions, it remains valid that resources are fundamental to the growth of firms. It is credible to opine that the financing provided by the Kenya Industrial Estates to small and medium enterprises is one of the crucial resources that can potentially impact on the growth of these enterprises.

### **Empirical Review**

This section focuses on studies that have so far been conducted on development financing and firm growth. In particular, the section reviews studies on loan repayment period, collateral requirements, and growth of firms, particularly in micro and small enterprises.

### **Loan Repayment Period**

According to International Monetary Fund report (2007) lending to SMEs may be short term due to the lack of adequate collateral, poor credit discipline and contractual enforcement problems among other reasons. Wellen and Muller (2008) noted that short term credits are preferred by microfinance institutions in order for them also to pay back loan borrowed. A study on the factors that influenced loan repayment was conducted in Iran (Koopahi&Bakhshi, 2002). The study sought to establish the factors that affected agricultural bank credit repayment. The study

noted that bank supervision and monitoring influenced the repayment of the loans. Indeed, it was established that the loan repayment period influenced repayment of the borrowed funds.

In South Africa, Hwarire (2012) analyzed loan repayment and credit management of small businesses. On focus was the South African Commercial Bank. Factors such as age, bank balance, interest rate, loan size, loan term and product type were used as proxies of loan repayment. Binary logit model was employed to establish the nexus between the two studies constructs. Notably, the study established that loan term negatively influenced loan default among the surveyed firms. It was established that increases in loan repayment period resulted in decrease in loan default. In addition, it was suggested that the period of loan obligation can follow the same trend as the existing economic environment.

Olowe, Moradeyo and Babalola (2013) empirically analyzed the impact of microfinance bank on growth of small and medium enterprises in Nigeria. On focus were the SMEs in Oyo State where 82 SMEs operators participated in the study. The study noted that the financial services that the SMEs obtained from the microfinance banks had positive impact on their growth. More so, it was ascertained that the duration of the loan or credit advanced had positive effect on SMEs growth. The study recommended that microfinance banks ought to ease conditions for borrowing and also extend the loan repayment period in order to encourage repayments.

The determinants of loan defaults were put into perspective (Kibosia, 2012). The author sought to establish the factors that influenced loan default by small and medium enterprises in Kenya. It was discovered that loan default by SMEs had been on the rise. This was occasioned by the type of loan and more so, loan repayment period. Indeed, a study on the factors hindering SMEs from committed and consistent loan repayment established that lack of structure where funds can be projected over the period of repayment was one of the prime reasons for high rate of loan defaults by SMEs (Nene, 2014).

Gichuki, Njeru and Tirimba (2014) determined the challenges the micro and small enterprises face while accessing credit facilities in Kenya. Micro and Small Enterprises (MSEs) located in KangemiHarambee market were targeted. 241 MSEs out of 656 MSEs participated in the study. Questionnaires were used to collect primary data from the respondents. The findings revealed that the unwillingness of people to act as guarantors contributed to the enterprises not accessing credit services. Notably, short loan repayment period coupled with high cost of repayment were key challenges that largely hindered accessibility of credit facilities by MSEs in KangemiHarambee market. It was recommended that financial institutions offer more attractive and flexible loan requirements while advancing credit to MSEs.

### **Collateral Requirements**

Lack of adequate collateral is noted to be a major factor be-devilling the growth of small businesses (Berger & Udell, 2004). Indeed, according OECD (2006) report, lack of enough collateral by very young firms and start-ups are the major causes for financial institutions' reluctance to extend credit. In the same vein, Gama and Duarte (2015) sought to establish the relationship between collateral and lending in loan pricing. The study employed data from the UK's SMEs. The study noted that personal collateral were used as sorting tool to obtain borrowers who were less risky. In addition, collaterals were used as incentive to credit markets by attaching loan contracts with lower interest rate but with more collateral. This was noted to screen borrowers and consequently attract high quality borrowers.

Ono, Sakai and Oesugi (2008) embarked on the effects of collateral on SMEs performance in Japan. The study sought to examine how collateral and personal guarantee affected SMEs performance. The study analyzed data from 500 small and medium sized borrower firms. It was found that SMEs that provided collateral experienced increased profitability than those who did not. The increase in profitability was ascribed to cost reduction and reduction of moral hazard by the borrowers since they wanted to improve their credit worthiness. Moreover, the lenders' supervision and monitoring of the borrowers did change as a result of collateral pledge. In their later study on the role of collateral and personal guarantee among SMEs in Japan, Ono and Oesugi (2009) noted that positive relationship between the use of collateral and the strength of the borrower and lending relationship led SMEs to easily access external finance.

In another study, Odit and Gobardhun (2011) investigated the determinants of financial leverage of SMEs in Mauritius. The study established that the association between debt ratio and asset structure determined access to loan financing. More so, it was noted that SMEs that had less proportion of tangible assets in their total assets were likely to experience challenges in accessing and procuring external finance because they could not provide adequate collateral. It is also noted that Algerian SMEs are constrained in accessing the much needed external finances due to high collateral requirements demanded by lending institutions (Bouazza, Ardjouman & Abada, 2015).

It is asserted that banks mitigate lending risks through loan securitization and as such it is noted that access to bank loans is limited to those firms that can provide required security (Africa Practice, 2005). Abo and Ghimire (2013) investigated Ivorian SMEs access to bank finance. The study relied on primary data from urban and rural SMEs operators. It was established that inadequate collateral and information asymmetry indeed constrained the flow of credit to SMEs from the banks. An earlier study on risk management and insurance of small and medium enterprises in Nigeria reaffirmed that stringent collateral requirements demanded by the banks are stumbling blocks for SMEs access to finance (Azende, 2012).



Apiri (2013) looked into default rate and performance of Microfinance bank loans to SMEs in Nigeria. The study focused on Accion microfinance bank. The result of the analysis indicated that the microfinance banks demanded stringent credit requirements before advancing loans to SMEs. Lack of collateral and poor governance practices hindered access and procurement of loans from the banks. The foregoing was in tandem with Obamuyi (2011) who established that microfinance banks in Nigeria apply strict credit policy such as heavy collateral due to the perceived risk of borrowers.

In Kenya, Muratha (2015) investigated and analyzed the credit accessibility factors among young entrepreneurs. The study employed descriptive research design. 437 young entrepreneurs were targeted where 251 were selected for the study. Questionnaire survey was used to gather data. In the study, it was noted that collaterals are valued by banks and provide incentive to pay and offset losses in case a borrower defaulted. The study found that collaterals were demanded by lenders before loan was advanced. In addition, the entrepreneurs received less loan amount than what they had applied due to the value of security pledged. Moreover, majority of the entrepreneurs lacked collateral demanded by lenders and were therefore locked out in accessing credit. It was concluded that collaterals were fundamental in accessing loans especially to the young entrepreneurs. The study recommended that government ought to subsidize collateral requirements for young entrepreneurs in order to access credit.

### **Growth of Micro and Small Enterprises**

Heggeseth and Lome (2012) examined growth of SMEs while focusing on Norwegian exporters. Specifically, the study investigated the relationship between motivation for growth, international orientation and performance. 247 firms were assessed. It was noted that international orientation of the firm determined the growth in revenue and exports of the exporting SMEs. It was also noted that firms with high motivation for growth had strong international network and relationships and therefore registered robust growth in domestic and international arena. The findings concurred with Wiklund and Shepherd (2003) who established that motivation for growth positively influenced revenue growth of SMEs.

It is noted that the SMEs in South Africa have been facing challenges and the failure rate has clocked 75%, one of the highest in the world (Olawale&Garwe, 2010). The authors investigated the obstacles to the growth of new SMEs in South Africa. The objective of the study was to determine the internal and external environmental challenges to the growth of SMEs. It was established that lack of access to finance was one of the cardinal factors that hindered growth of new SMEs in South Africa. It was also established that managerial skills and competencies influenced the survival and growth of the enterprises. Other factors that constrained growth of

the enterprises were information technology and cost of production, external market for products, laws and regulations and necessary infrastructure such as staff.

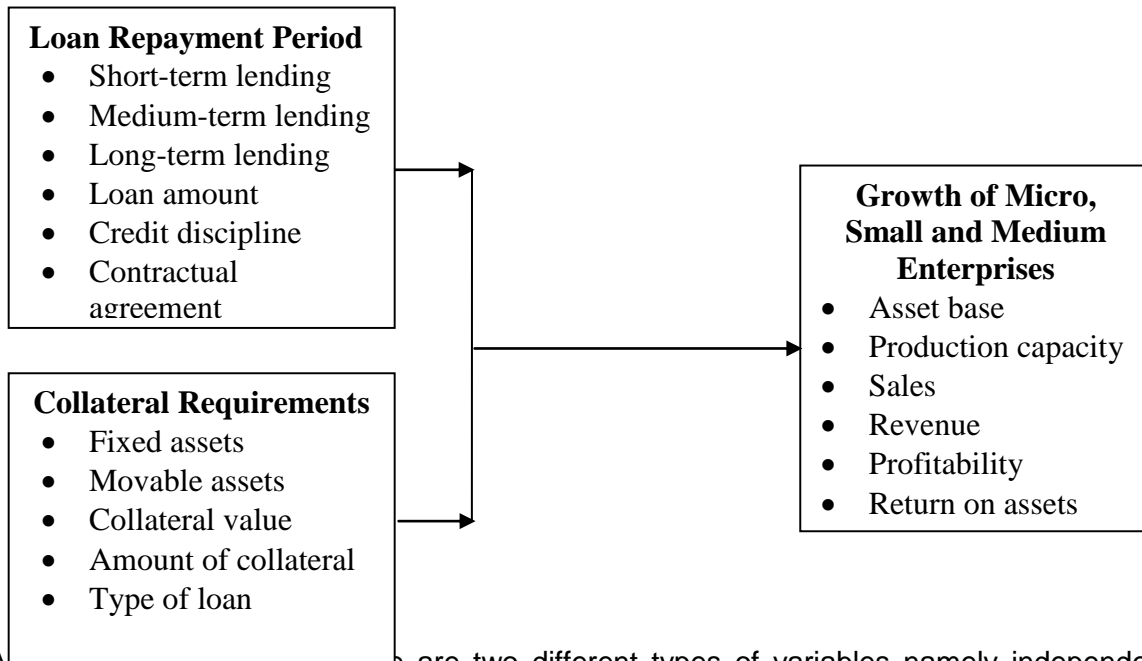
In yet another study, Ngeek (2014) determined factors of SME quality that contributed to SMEs growth in South Africa. The study targeted entrepreneurs from notable organizations such as Free State Development Corporation and Small Enterprise Development Agency in Free State province in South Africa. Data was collected by using questionnaire survey approach. The findings indicated that human capital, growth ambition, innovativeness, market orientation defined high quality SME and positively contributed to the growth of SMEs in South Africa. It was recommended that policies ought to be developed in a bid to create high quality start-ups rather than just increasing the number of start-ups in order to enhance their growth and reduce unemployment rate in South Africa.

Despite the importance of SMEs in wealth creation and development of innovation, it is asserted that the enterprises are plagued with a number of factors that constrain their growth (Nyagah, 2013). The author embarked on ascertaining the non-financial constraints hindering growth of SMEs in Kenya with a special focus on plastic manufacturing companies. Cross sectional research design was employed. The licensed SMEs in industrial area in Nairobi were targeted. Questionnaires were used to gather data. The study found that laws and regulations, innovation and technology, entrepreneurial factors and market competition affected the growth of SMEs. More so, the study emphasized that building adequate legal framework of business is vital for success of SMEs. It was recommended that SMEs should invest in new technologies and innovation. SMEs managers understand the importance of marketing management in order to propel SMEs growth to greater levels.

Ngugi, Mcorege and Muiru (2013) analyzed the influence of innovativeness on the growth of SMEs in Kenya. The study adopted descriptive survey and exploratory design. On focus were the SMEs in Nairobi County. Data was collected using questionnaires. The study noted that incentives for innovative employees largely influenced growth of SMEs. Moreover, support on employee innovation by entrepreneurs was noted to influence the growth of the enterprises. More so, the number of patents within an enterprise largely influenced the growth of the enterprises. It was generally found that innovativeness positively influenced growth of SMEs in Kenya. It was recommended that owners and managers should employ technology in control of production cost while maintain competitive pricing in order to enhance profitability and growth of the firms.

### **Conceptual Framework**

A conceptual framework diagrammatically represents the presumed relationship between study variables. Figure 1 shows the conceptual framework that guided this study.



**Independent Variables**

**Figure 1: Conceptual Framework**

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ris represents

**Dependent Variable**

ments.  
It was

believed that the two stated independent variables affected the growth of micro, small and medium enterprises financed by the Kenya Industrial Estates in Nakuru County.

**Methodology**

In this section, the research design adopted is stated and explained. More so, the target population, sampling procedure, instrumentation, pilot testing, data collection procedure, and how the collected data were analyzed are also discussed. The section further states how the study findings were presented.

**Research Design**

A research design which is a blueprint of conducting a research study is very essential in guiding the entire research. As such, the bottom line of a good research is embedded on the choice of research design. In view of this, a cross-sectional research design was adopted. The choice of this research design was founded on the fact that the study cut across all the small and medium enterprises in Nakuru County that were being funded by the Kenya Industrial Estates. More so, a cross-sectional research design is an example of descriptive research design which is guided by clear research objectives (Kothari, 2008).

**Target Population**

The target population is defined as the aggregate individuals or subjects who share common characteristics (Kothari, 2008). The study findings are generalized to this population. In line with this, all the managers and finance/accounts officers working with MSMEs funded by the KIE in

Nakuru County constituted the target population. There were a total 37 managers and 142 employees working with the finance/accounts department of the foregoing SMEs. In total, therefore, the target population constituted a total of 179 employees.

### **Sample Size and Sampling Technique**

This section focuses on the sample frame, method of determining or calculating the sample, and the technique employed to derive the sample from the target population.

#### **Sample Frame**

A sample frame is a list of individuals constituting the target population from which the sample is obtained. All the 179 employees cutting across the MSMEs funded by the KIE in Nakuru County constituted the sample frame.

#### **Sample Size Determination**

A sample is a fraction of the target population. A good sample should adequately and appropriately represent the target population. In order to determine the right and representative sample, Nassiuma's (2008) formula was employed to do the calculation as shown.

$$n = \frac{NC^2}{C^2 + (N - 1) e^2}$$

Where n, N, C (21%≤C≤30%), and e (2%≤e≤5%) represent sample size, target population, coefficient of variation, and precision level respectively.

$$\text{This implies } n = \frac{179 \times 0.25^2}{0.25^2 + (179 - 1) 0.025^2}$$

$$n = 64.39$$

$$n = 65 \text{ respondents}$$

The size of the sample was thus 65 respondents.

#### **Sampling Technique**

A sampling technique describes the method used to obtain the sampled respondents from the target population or sample frame. Given that the MSMEs funded by the KIE fall within the same range of capitalization and also have similar structures in terms of operations, employees and management, simple random sampling method was used. Simple random method falls under probability sampling methods where the choice of respondents to participate in the study is by chance. Using this sampling method, all the targeted individuals had an equal chance of taking part in the study.

#### **Research Instrument**

A research instrument is a tool that is used to collect data from the respondents. The choice of this tool is guided by the kind of data to be collected, and also the objectives of the study. The present study adopted a structured questionnaire to collect data. Given that the study had many

sampled participants, then a questionnaire was deemed relevant. The questions contained therein were structured in such a manner that they predominantly enabled collection of data relative to the study objectives. In addition, the questionnaire contained close-ended questions that facilitated collection of quantitative data.

### **Pilot Testing**

A pilot test is a minor study carried out before the main study with the aim of validating the research instrument. The reliability, validity and degree of ease of responding to questions posed to the respondents are determined at this stage. The pilot study was undertaken across MSMEs financed by the KIE in Nyandarua County. The choice of an area away from the scope of the study was guided by the reasoning that participants of the pilot study should not take part in the main study. Pilot study was conducted based on 10% of the size of the sample (Kothari, 2004).

### **Validity Testing**

Validity testing seeks to determine whether or not the research instrument addresses what it is intended to address. In other words, this test enables the researcher to assess the extent to which the research tool facilitates collection of data pertinent to the study objectives. There are various types of validity including face validity, content and construct validity; however, in this study content validity was determined where the researcher consulted the assigned supervisor regarding the content of the questionnaire.

### **Reliability Testing**

Reliability testing is a measure of internal consistency of a research instrument. That is, applicability of the data collection tool when used to collect in various populations with similar characteristics. The Cronbach alpha coefficient was used to test the reliability of the questionnaire. The variables that returned alpha coefficients equal to or greater than 0.7 were considered reliable as shown in Table 1.

**Table 1: Reliability Test Results**

<b>Constructs</b>	<b>Test Items</b>	<b>Alpha Coefficients</b>
Loan Repayment Period	6	0.783
Collateral Requirements	6	0.766
Growth of SMEs	6	0.793

### **Data Collection Procedure**

After ensuring that the research questionnaire was both reliable and valid for data collection, the next step was to source the requisite consents from relevant authorities. First, the researcher obtained an introductory letter from the University duly signed by the supervisor. Then, consent of the management of the MSMEs from which respondents were drawn was then sought. The questionnaires which were self-designed by the researcher and self-administered were issued to the respondents through the MSMEs' management. The filled questionnaires were collected after a time that was agreed upon by both parties (researcher and respondents through management).

### Data Analysis

The filled questionnaires were scrutinized to ensure that incomplete and inappropriately filled ones were excluded from the analysis. The data processing and analysis were aided by the Statistical Package for Social Sciences (SPSS) Version 24 analytical tool. Precisely, data analysis was both descriptive and inferential. Descriptive analysis encompassed frequencies and percentages in analysis of data pertinent to background information; and means and standard deviations in analysis of data relative to study variables. More so, inferential analysis took the form of Pearson's moment correlation coefficient and multiple regression analysis. Correlation analysis sought to outline the relationship between independent variables (interest rates, repayment period, and collateral requirements) and the dependent variable (MSMEs growth). Multiple regression besides addressing the research hypotheses, demonstrated the extent to which each of the independent variables affected the MSMEs growth. It also showed the combined effect of independent variables (development financing) on the growth of MSMEs funded by the KIE. The study results were presented in form of statistical tables. The following multiple regression function was adopted in the inferential analysis.

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

Where:

Y	represents	Growth of SMEs
$\beta_0$	represents	Constant
$X_1$	represents	Repayment Period
$X_2$	represents	Collateral Requirements
$\varepsilon$	represents	Error term
$\beta_1, \beta_2$	represent	Regression Coefficients

### Research Findings

The study sought to determine the effect of development financing on the growth of micro, small and medium enterprises (MSMEs) funded by Kenya Industrial Estates (KIE). The study obtained data from the personnel in the management positions, finance and accounts departments. Data

collected was analyzed. It is in this section that the study findings, interpretations and discussions are presented. These are the descriptive and inferential findings.

### Response Rate

Sixty-five questionnaires were administered on the 65 sampled respondents. All the questionnaires were filled and returned. This translated to a response rate of 100%. The absolute response rate was attributed to the fact that the questionnaires were administered by the researcher in person who explained to the respondents the importance of participating in the study.

### Descriptive Findings and Interpretations

The study sought to establish to what extent respondents agreed or disagreed with the statements provided in a Likert form. The statements related to interest rates on loans, loan repayment period, collateral requirements and growth of micro and small enterprises. Their responses were summarized and presented in form of means and standard deviations.

### Loan Repayment Period

The study further requested respondents to provide their views regarding loan repayment period. Their responses are indicated in Table 2.

**Table 2: Descriptive Statistics for Loan Repayment Period**

	n	Min	Max	Mean	Std. Dev
Loan repayment period is determined by the amount of loan	65	3	5	4.71	.631
KIE gives our firm long-term lending	65	3	5	4.60	.657
Loan repayment period is based on contractual agreement between KIE and our firm	65	4	5	4.49	.504
Credit discipline determines loan repayment period	65	2	4	3.31	.635
KIE gives our firm medium-term lending	65	2	5	2.58	.900
KIE gives our firm short-term lending	65	1	5	2.14	1.158

It was determined that respondents strongly concurred (mean  $\approx$  5.00; std dev  $<$  1.000) that loan repayment was determined by the amount of loan and that KIE gave the firm long-term lending. More so, respondents agreed (mean = 4.49; std dev = 0.504) that loan repayment period was based on contractual agreement between KIE and the firm. It was not clear (mean  $\approx$  3.00; std dev  $<$  1.000) whether credit discipline determined loan repayment period and whether KIE gave the firm medium-term lending. Respondents disagreed (mean = 2.14; std dev = 1.158) that KIE extended short-term lending to the firm.

### Collateral Requirements

The study aimed to determine the respondents take regarding collateral requirements when obtaining loans from Kenya Industrial Estate. The outcome of the analysis is captured in Table 3.

**Table 3: Descriptive Statistics for Collateral Requirements**

	n	Min	Max	Mean	Std. Dev
Value of collateral determines amount of loan advanced by KIE	65	5	5	5.00	.000
KIE demands collateral when advancing loan to our firm	65	5	5	5.00	.000
Our firm has considerable movable assets	65	4	5	4.40	.494
Our firm has considerable fixed assets	65	4	5	4.29	.458
Amount and value of collateral determines credit worthiness of our firm	65	4	5	4.29	.458
Secured loans attract relatively less interest rates than unsecured credit	65	1	3	2.82	.583

Respondents strongly agreed (mean = 5.00; std dev < 1.000) that KIE demanded collateral when advancing loans and that the value of collateral determined the amount of loan advanced by KIE. It was further agreed (mean ≈ 4.00; std dev < 1.000) that the firm had considerable movable and fixed assets. In addition, it was admitted (mean = 4.29; std dev = 0.458) that the amount and value of collateral determined credit worthiness of the firm. Nevertheless, respondents were indifferent (mean = 2.82; std dev = 0.583) relative to the view that secured loans attracted relatively less interest rates than unsecured credit.

### Growth of MSMEs

Lastly, the study sought to establish whether MSMEs funded by KIE registered growth. The foregoing was achieved by requesting views on the statements provided. Table 4 illustrates the findings.

**Table 4: Descriptive Statistics for Growth of SMEs**



	n	Min	Max	Mean	Std. Dev
Our firm has recorded increased profitability since it started getting KIE financing	65	4	5	4.69	.465
Our firm has increased its asset base since it started getting KIE financing	65	4	5	4.69	.465
Our firm has been recording increased sales since it started getting KIE financing	65	3	5	4.68	.664
The revenue of our firm has increased since it started getting KIE financing	65	4	5	4.58	.497
Return on asset of our firm has increased since it started getting KIE financing	65	3	5	4.57	.684
Our firm production capacity has been on the rise since it started getting KIE financing	65	4	5	4.49	.504

The study findings revealed that respondents strongly admitted (mean  $\approx$  5.00; std dev  $<$  1.000) that the MSME recorded increased profitability since it started getting KIE financing and more so increased asset base after getting KIE financing. It was further strongly agreed (mean  $\approx$  5.00; std dev  $<$  1.000) that the firm had been recording increased sales and return on asset had increased since it started getting KIE financing. Respondents concurred (mean = 4.49; std dev = 0.504) that MSME production capacity had been on the rise since it started obtaining financing from KIE. As such, it is observed that KIE financing enhanced growth of the MSMEs in terms of production, asset growth, return on assets, profitability and sales growth.

### **Inferential Findings and Interpretations**

This section outlines the results correlation and multiple regression analyses. The purpose of the foregoing is to show the relationship between development financing as characterized by loan repayment period, collateral requirements, and growth of MSMEs funded by KIE. More so, the effect of development financing on firm growth is also put into perspective.

### **Relationship between Loan Repayment Period and Growth of MSMEs**

The study determined the existing relationship between loan repayment period and growth of MSMEs funded by KIE. Correlation results are depicted in Table 5.

**Table 5: Correlation between Loan Repayment Period and Growth of MSMEs**

		Growth of MSMEs
<b>Loan Repayment Period</b>	Pearson Correlation	.463**
	Sig. (2-tailed)	.000
	n	65

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The study established that there existed a positive, moderately strong and statistically significant relationship between loan repayment period and growth of SMEs ( $r = 0.463$ ;  $p < 0.01$ ). As the period MSMEs were allowed to service the loans borrowed increased, so was their growth and the reverse was also true. Therefore, loan repayment period largely enhanced growth of SMEs. It is deduced that extension of loan repayment period provided MSMEs with lengthy period to plough back returns and therefore increase, for instance, production, sales growth and profitability. The importance of loan repayment period was underscored in a study done in South Africa by Hwarire (2012). The study analyzed loan repayment and credit management of small businesses. It revealed that increases in loan repayment period resulted in decrease in loan default. When there is reduced default in loan repayment, the growth of firms is likely to be enhanced.

#### **Relationship between Collateral Requirements and Growth of MSMEs**

The relationship between the two study constructs was ascertained. Table 6 displays the outcomes of the analysis.

**Table 6: Correlation between Collateral Requirements and Growth of MSMEs**

		Growth of SMEs
<b>Collateral Requirements</b>	Pearson Correlation	-.678**
	Sig. (2-tailed)	.000
	n	65

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The relationship between collateral requirements and growth of MSMEs was noted to be negative, strong and statistically significant ( $r = -0.678$ ;  $p < 0.01$ ). As more collateral requirements were demanded the less the growth of MSMEs getting financing from the KIE. The findings implied that collateral requirements negatively and to a large extent affected growth of MSMEs. It is noted that the more MSMEs were required to provide more collateral then the less the firms were able to procure credit from KIE. This is because such MSMEs may lack the necessary collateral and as such they are locked out from accessing adequate amounts of

credit. Lack of credit to fund operations stifles growth. The findings were in agreement with earlier findings by Merger and Udell (2004). The scholars had observed that lack of adequate collateral was a major factor be-devilling the growth of small businesses.

### Effect of Development Financing on Growth of MSMEs Funded by KIE

The study conducted a multiple regression analysis to determine the combined effect of loan repayment period and collateral requirements as the proxies of development financing on growth of MSMEs funded by KIE in Nakuru County. The pertinent findings are presented in Tables 7, 8, and 9 respectively.

**Table 7: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.881 <sup>a</sup>	.776	.765	.20246

a. Predictors: (Constant), Loan repayment period, Collateral requirements

The coefficient of determination ( $r^2 = 0.765$ ) shows the contribution of development financing on the growth of MSMEs funded by the Kenya Industrial Estates in Nakuru County. The two factors that characterized development financing, that is, loan repayment period and collateral requirements were found to account for 76.5% of growth of MSMEs (Table 4.14). It is further observed that other factors not investigated in the current study explained 23.5% of growth of MSMEs funded by the KIE. More so, the study examined the relationship between development financing and growth of SMEs funded by the KIE and the results are indicated in Table 7. It was noted that the relationship between development financing (loan repayment period and collateral requirements) and growth of MSMEs was positive and strong ( $R = 0.881$ ) and significant as indicated in Table 8 ( $F = 70.353$ ;  $p < 0.05$ ).

**Table 8: ANOVA<sup>b</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	8.651	3	2.884	70.353	.000 <sup>a</sup>
Residual	2.500	61	.041		
Total	11.151	64			

a. Predictors: (Constant), Loan repayment period, Collateral requirements

b. Dependent Variable: Growth of MSMEs

The study further used analysis of variance to establish the significance of the regression model. The model was found to have less than 0.05 probability of giving wrong prediction. In other words, the model had a confidence level of 95% in giving reliable results.

**Table 9: Coefficients<sup>a</sup>**

Model		Unstandardized		Standardized		
		Coefficients		Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.622	.668		6.922	.000
	Loan repayment period	.423	.202	1.043	11.967	.000
	Collateral requirements	-.843	.132	-.562	-6.410	.000

a. Dependent Variable: Growth of MSMEs

The results indicated in Table 9 are interpreted as shown below.

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

$$Y = 4.662 + 0.432X_2 - 0.843X_3$$

It is noted that the proxies of development financing influenced growth of MSMEs at varied degrees. Furthermore, it was established that holding all the development financing factors (loan repayment period and collateral requirements) constant growth of MSMEs would be enhanced by a factor of 4.622. The findings further illustrated that the effect of development financing on growth of SMEs was significant ( $t = 6.922$ ;  $p < 0.05$ ). In addition, it was observed that for every unit increase in growth of SMEs loan repayment period had to be increased by 0.432 unit and there be a decrease of 0.843 unit in collateral requirements. Therefore, collateral requirements constituted the most critical factor of development financing that enhanced growth of MSMEs funded by KIE. As such, the KIE should address the collateral requirements in order to enable more MSMEs to access financial assistance from them. The effect of loan repayment period ( $t = 6.410$ ;  $p < 0.05$ ) and collateral requirements ( $t = 11.967$ ;  $p < 0.05$ ) on growth of SMEs was significant. This implied that the first and second null hypotheses were rejected.

### Summary

It was absolutely concurred that loan repayment was determined by the amount of loan and that KIE gave the firm long-term lending. In addition, it was agreed that loan repayment period was based on contractual agreement between KIE and the firm. It was unclear whether credit discipline determined loan repayment period and whether KIE gave the firm medium-term lending. Respondents disagreed that KIE extended short-term lending to the firm. The study established that there existed a moderately strong, positive and statistically significant ( $r = 0.463$ ;  $p < 0.05$ ) relationship between loan repayment period and growth of MSMEs.

The study ascertained that respondents strongly agreed that KIE demanded collateral when advancing loans and that the value of collateral determined the amount of loan advanced by KIE. It was further noted that the firm had considerable movable and fixed assets. In addition, it was admitted that the amount and value of collateral determined credit worthiness of the firm. Nevertheless respondents were unsure of the view that secured loans attracted relatively less interest rates than unsecured credit. It was further noted that the relationship between collateral requirements and growth of MSMEs was moderately strong, negative and statistically significant ( $r = - 0.678$ ;  $p < 0.05$ ).

The study findings discovered that respondents strongly admitted that the MSME recorded increased profitability since it started getting KIE financing and more so increased asset base after getting KIE financing. It was further strongly agreed that the firm had been recording increased sales and return on asset had increased since it started getting KIE financing. It was ascertained that MSME production capacity had been on the rise since it started obtaining financing from KIE. Further analysis revealed that interest rate on loans, loan repayment period and collateral requirements accounted for 76.5% of growth of MSMEs. The study also established that the relationship between interest on loans, loan repayment period, collateral requirements and, growth of MSMEs was positive and significant. In addition, it was noted that loan repayment period was the most important factor of development financing that enhanced growth of MSMEs funded by KIE.

### **Conclusions**

The study inferred that MSMEs obtained long-term loans from KIE and that loan repayment was determined by the amount of loan procured and contractual agreement between KIE and the borrower. It was further concluded that loan repayment period positively enhanced growth of MSMEs funded by KIE. Lengthy loan repayment period was argued to allow MSMEs to reinvest returns to realize growth in sales, production and profitability.

It is noted that collaterals are important for lenders to safeguard against default. It was observed that KIE demanded collateral when advancing loans and that the value of the collateral determined the amount of loan advanced. It was further inferred that MSMEs had movable and fixed assets that could be used as collateral. The study concluded that collateral requirements negatively affected growth of MSMEs. This was because MSMEs may require huge funds to enhance growth but may be limited to the value of collateral pledged. As such the firms obtain credit which is not adequate to enhance and sustain growth.

### **Recommendations**

The study provided recommendations based on the study findings and conclusions made. It was recommended that the government should also channel more fund to the KIE to enable the

corporation to finance more businesses and as such enhance the economic growth of the country. It is also important for the KIE to look into other factors than can enable it to determine creditworthiness of MSMEs and at the same time reduce the collateral requirements. This is likely to encourage more MSMEs to seek development financing from the KIE. The loan repayment period should be long enough to enable MSMEs service the credit without defaulting. The KIE should further grant sufficient grace period to MSMEs after advancing loans to them.

### **Limitations**

The study was limited by the fact that the scope was delimited to only those firms that were being funded by the Kenya Industrial Estates (KIE). As such, there are several firms which were receiving development financing from other sources besides KIE that were excluded from the study. This issue was addressed by the assumption that the firms being funded by KIE were similar in structure and operations to the ones that were receiving financing from other sources. Several MSMEs under study did not have a clear organizational structure. That is, there were some firms that had the manager (proprietor) playing the roles of accountant and finance officer besides that of management. This limitation was addressed by the researcher explaining to all respondents exactly what the study sought from them.

### **Suggestions for Further Studies**

Scholars and researchers are recommended to carry out further research on the following themes.

- i. Influence of development financing on growth of MSMEs in different sectors such as agriculture, service, and manufacturing among others.
- ii. Effect of development financing on financial performance of MSMEs funded by the KIE
- iii. A comparative analysis of the effect of financing by the KIE vis-à-vis financing by commercial banks on growth of MSMEs.

### **REFERENCES**

- Abo, R., & Ghimire, B. (2013). An Empirical Investigation of Ivorian SMEs Access to Bank Finance: Constraining Factors at Demand - Level. *Journal of Finance and Investment Analysis*, 2(4), 29-55.
- Afande, F.O. (2015). The factors that affect accessibility to credit services by small scale sugarcane farmers in Kenya: A case of Bungoma County, Kenya. *Developing Country Studies*, 5(5), 99-114.
- AfricaPractice, (2005). Access to finance: Profiles of African SMEs Working Paper prepared for Jetro London. Retrieved on 14th April 2016, from <http://www.africappractice.com/uploads/JETRO.pdf>.
- Apiri, T.R. (2013). Loan performance and default rate of financing SMES by microfinance bank: A case study of Accion Microfinance Bank Plc. Master of Development Finance at University of Stellenbosch.
- Azende, T. (2012). Risk management and insurance of small and medium scale enterprises (SMEs) in Nigeria. *International Journal of Finance and Accounting*, 1(1), 8-17.
- Berger, A.N., & Udell, G.F. (2004). World Bank conference on small and medium enterprises: Overcoming growth constraints. World Bank, MC 13-121.

- Bouazza, A.B., Ardjouman, D., & Abada, O. (2015). Establishing the Factors Affecting the Growth of Small and Medium-sized Enterprises in Algeria. *American International Journal of Social Science*, 4(2).
- Ewert, R., Szczesmy, A., & Schenk, G. (2000). Determinants of bank lending performance in Germany. *Schmalenbach Business Review*, 52, 344 – 362.
- Gama, A.P.M., & Duarte, F.D. (2015). Collateral and relationship lending in loan pricing: Evidence from UK SMEs. University of Beira Interior, Covilhã, Portugal.
- Gbandi, E.C., & Amisah, G. (2014). Financing options for small and medium enterprises (SMES) in Nigeria. *European Scientific Journal*, 10(1), 327-340.
- Gichuki, J.A.W., Njeru, A., & Tirimba, O.I. (2014). Challenges facing micro and small enterprises in accessing credit facilities in Kangemi Harambee Market in Nairobi City County. *International Journal of Scientific and Research Publications*, 4(12), 1-25.
- Government of United Kingdom, (2013). Measures to support SME growth. Government of UK.
- Hwarire, C. (2012). Loan repayment and credit management of small businesses: a case study of a South African commercial bank. A paper presented at the African development finance workshop, Cape Town, South Africa
- International Monetary Fund report, IMF (2007). Evidence from Rural Iowa. Working Paper, Wp/05/166. *Journal of Small Business Management*, 34, 1-45.
- Kibosia, N.C. (2012). Determinants of loan defaults by small and medium enterprises among commercial banks in Kenya. Unpublished MBA Project, University of Nairobi.
- Koopahi, M., & Bakhshi, M.R. (2002). Factors affecting agricultural credit repayment performance: Case study in Birjand District. *Iranian Journal of Agricultural Sciences*, 33(1), 11-19.
- Kothari, C.R. (2004). *Research Methodology: Methods and Techniques*, (2nd Ed.). New Delhi: New Age International Publishers Ltd.
- Kothari, R. (2008). *Research methodology: Methods and techniques*. New Delhi: New Age International (P) Limited publishers
- Levere, A., Schewke, B., & Woo, B. (2006). *Development Finance and Regional Economic Development*. Washington D.C.
- Muguchu, M. (2013). The relationship between access to credit and financial performance of small and medium enterprises in Nairobi, Kenya. Unpublished MBA project, University of Nairobi, Kenya.
- Muratha, V. (2015). Factors affecting credit accessibility among young entrepreneurs in Kenya: A case of family bank limited. Unpublished Executive Master of Organizational Development project. United States International University- Africa.
- Nassiuma, K. (2008). *Survey sampling: Theory and methods*. Nairobi, Kenya: Nairobi University Press.
- Nyagah, C.N. (2013). Non-financial constraints hindering growth of SME'S in Kenya: the case of plastic manufacturing companies in industrial area in Nairobi County. Unpublished MBA project, Kenyatta University, Kenya.
- Obamuyi, T.M. (2011). Comparative loan performance in banks and microcredit institutions in Nigeria: A case study of Ondo State. *Global Journal of Management and business research*, 2(4).
- Odit, M.P., & Gobardhun, Y.D. (2011). The Determinants of Financial Leverage of SME's in Mauritius. *The International Business and Economics Research Journal*, 10(3), 113.
- Olawale, F., & Garwe, D. (2010). Obstacles to the growth of new SMEs in South Africa: A principal component analysis approach. *African Journal of Business Management*, 4(5), 729-738.
- Olowe, F.T., Moradeyo, O.A., & Babalola, O.A. (2013). Empirical Study of the Impact of Microfinance Bank on Small and Medium Growth in Nigeria. *International Journal of Academic Research in Economics and Management Sciences*, 2(6), 116-124
- Omorogbe, P. (2011). SMEs and funding challenges in 2011: Nigerian tribune.

- Ono, A., & Uesugi, I. (2009). Role of collateral and personal guarantees in relationship lending: Evidence from Japan's SME loan market. *Journal of Money, Credit and Banking*, 41(5), 935-960
- Ono, A., Sakai, K., & Uesugi, I. (2008). The effects of collateral on SME Performance in Japan. RIETI Discussion Paper Series 08-E -037.
- Owino, O.J. (2014). The effect of credit information sharing on the cost of credit of commercial banks in Kenya. MBA project, University of Nairobi, Kenya.
- Penrose, E.T. (1959). *The Theory of the Growth of the Firm*. Oxford: Blackwell.
- Sherazi, S.K., Iqbal, M.Z., Asif, M., Rehman, K., & Shah, S.S.H. (2013). Obstacles to small and medium enterprises in Pakistan. Principal component analysis approach. *Middle- East Journal of Scientific Research*, 13(10), 1325-1334.
- Wanjohi, A.M. (2012). *Challenges facing SMEs in Kenya and the efforts in progress*. Nairobi: Kenya Projects Organization.
- Wellen, H., & Mulder, A. (2008). Micro credits in SMEs. *Journal of finance and microfinance*, 7, 122-34.
- Wiklund, J., & Shepherd, D. (2003). Aspiring for and achieving growth: The moderating role of resources and opportunities. *Journal on Management Studies*, 40(8), 1919-1941.
- Zachary, L.N. (2013). The effect of interest rates on demand for credit by small medium enterprises in Nairobi County. Unpublished MBA project, University of Nairobi, Kenya.