ACCESS TO CREDIT, INNOVATION AND GROWTH OF SMALL AND MEDIUM ENTERPRISES IN MACHAKOS COUNTY

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ABSTRACT

The aim of this study was to examine the strategic determinants of growth of Small and Medium Enterprises in Machakos County. Specific objectives of the study were to establish the association between access to credit and innovation of entrepreneurs on growth of small and medium enterprises in Machakos County. The population of study was 114,249 Entrepreneurs with small or medium Enterprises in Machakos County, Kenya and a sample size of 384 Respondents selected through stratified random sampling. Primary data was collected using questionnaires which were issued to the respondents. Descriptive analysis was used, and this included weighted means, standard deviation, relative frequencies and percentages. A computer software programme (SPSS) version 21.0 was involved in analytical data processing in order to come up with arrangements of data to be used for continuous data processing. Inferential statistics through application of multiple linear progression mode, correlation and analysis was applied in examination of the association between the findings variables. The processed data was presented by use of frequency Tables. The study found out that access to credit, innovation of entrepreneur, physical resources, and government policy each had statistically significant influence on growth of SMEs in Machakos County. The findings of the study were comparable with the predictions of the Theory of Credit Rationing and Resource Based Theory. The study recommended that researchers and scholars in the field of Strategic Management should consider using the empirical evidence adduced to further their research interests. Theorists should also consider the findings of this study to find further empirical foundation in light of the determinants of growth of SMEs investigated in the study.

Key words: Innovation, Credit, Growth of SMEs, SMEs, Financial inclusion

INTRODUCTION
Small and medium Enterprises have gained significance in the current intellectually based economy. This has been necessitated by the flexibility and adaptable market trends and creation of new employment opportunities. (European Union Commission, 2003).

The SME sector is pivotal in economies in nations with increased turnover. These firm hires about 60% of the private sector employees, makes major contribution in innovation space and enhances regional development and social interrelation. In addition, (OECD, 2010) observes that SMEs in most of the undeveloped countries take part in growth of GDP and employment creation. Machakos County is one of the Counties in the Republic of Kenya with high SME growth potential. However, access to credit and entrepreneurial innovation has been twin uphill tasks by active and potential entrepreneurs. Due to lack of funding, the entrepreneurs can hardly sustain innovation which requires huge capital investment. Physical infrastructure such as roads, electricity, and water supply is inadequate especially in the rural areas and this is a drawback in the motivation to begin a business venture or grow the existing ones. (Ouma, 2002). Therefore, guided by the theory of credit rationing, resource based theory, and institutional theory, the study sought to investigate the strategic determinants of growth of SMEs in Machakos County, Kenya.

Firms and nations set up their definitive guidelines for classifying SMEs, usually related to sales, workers or investment value. World bank states SMEs as a business with approximately three hundred workers, an annual revenue of fifteen million dollars investment. EU defines SMEs as firms that hire less than 250 employees with an annual revenue of less than fifty Euro and an yearly balance sheet of lower than forty three million Euros. Apparently, the SMEs are firms with 10-250 workers and 10 million EUR revenue annual balance (European Union Commission, 2003).

Increasingly a numbers of SME’s are unable to transit to their trajectory growth beyond the fifth year of existence. Many may begin but their sustainability beyond their fifth birthday is not guaranteed (OECD, 2010). Insufficient research in this area threatens policy related challenges in development of countries where there is limited interest in economic growth findings in spite of the wide expansion of SMEs. This study therefore sought to investigate influence of access to credit and innovation on growth of small and medium enterprises in Machakos County, Kenya. Through use of cross sectional descriptive survey, the study proposed the following research hypothesis;

- $H_01$: Access to credit has no significant influence on growth of small and medium enterprises in Machakos County.
- $H_02$: Entrepreneurs’ innovativeness has no significant influence on growth of small and medium enterprises in Machakos County.

LITERATURE REVIEW

Theory of Credit Rationing
Credit is naturally a rare resource and its availability changes from the debtor as a result of threat assessment. The theory of credit rationing is founded on two major hypothesis. One the creditors varying steps of danger related with safe and bad debtors and secondly loans bring about
limited liability of debtors in wondering their mortgages at the end of termination period. Due to availability of unequal info creditors will refer to the debtors’ creditworthiness in relation to the data available. Inaccurate information develops at least two types of issues in microcredit – adverse choosing and moral hazards (Stiglitz & Weiss, 1981).

The adverse problem section comes about in the broadcast process where the cot operations include differentiation between good and bad debtors as seen in borrowing that has charges attached. Raising charges to pay for raised operation fee could discourage good debtors from the category of borrowers. Therefore the ethical danger associates to observing and implementation machinery since the debtors might not be committed to repayment and obtaining the loan as they aware the creditors are distributing apart of the risk (Pham & Lensink, 2007).

Generally borrowers choose if the allowed and the amount that is allowed depending on the set of data that they receive that is not all debtors will acquire te credit they apply for. The rationing of credit brings about problems that families and SMEs foresee credit challenges no matter how their ability to repay are (Aghion & Morduch, 2010). The theory is applicable in accessing credit in Machakos County especially in determining the suitability of investors to be awarded loans by relying on various factors such as statement of financial position, business size, the business ages and securities.

Resource Based Theory

This hypothesis started from traditional works of Penrose (1952). Rindova and Fombrun (1999) contend that assets, capacities and center abilities are fundamental for an association’s upper hand. Along these lines, satisfactory asset backing and strategies to make capacity are basic for SMEs' development as they are little in size and need help. Asset based hypothesis gives a structure to clarify how business can distinguish reasonable measures to defeat development hindrances, have better access to innovation assets, labor assets, money related assets, common, and framework, and access to the market.

As indicated by Barney (1991) and Grant (1991), the four kinds of unmistakable assets are monetary, hierarchical, physical, and mechanical. The three sorts of immaterial assets are human, development and reputational assets. A model is the TVEs model in China, where TVEs depend on the state division as a wellspring of capital, materials, gear, particular faculty, innovation, subcontracting game plan and deals incomes (Harvie, 2002).

This theory depict entrepreneurial innovation as key bundle of resources and capabilities that SMEs can use to enhance growth trajectory. Entrepreneurs who have access to credit and good level of product and process innovation are likely to grow their enterprises faster compared to those who do not hence contributing positively to growth of SME’s in Machakos County. This theory is also relevant to innovation because capabilities and core competencies of the entrepreneurs would directly enhance them to be creative.

Empirical Literature Review

According to a study done by Fatoki and Asah (2011) on the impact of firm and entrepreneurial characteristics on access to debt finance by SMEs in King Williams’ town found the size of the farm affects the accessibility of monetary resources by small businesses from commercial institutions and that the SMEs are treated with preference. As a result of this it is experimental that there is availability of a good relationship between the size of the organization and the SMEs to borrowing finances. In accordance with Ngoc (2009), the small businesses face a tough road in getting monetary resources and sustain finances as a result of information inconsistencies fetched from the business statements of financial position in order to define probability misbehavior.

Pandula (2011) found that dimensional differences exist in both the expense and presence of monetary resources particularly in the SMEs. In the countryside, there are a number of determinants
that could result to the variations in the presence of bank loans for the growing businesses. For instance, there could be a branch in one area which could be monopolistic and then minute organizations may not enjoy substitute sources of money. As a result, they are forced to pay huge interest rates for loans or even stick to controlled agreements like warranty and other requirements. According to a research done by Fatoki & Asah (2011) on the impact of firm and entrepreneurial characteristics on access to debt finance by SMEs in King Williams’ town Consequently, there is a positive relationship between firm’s location and access to debt financing by the enterprises in the countryside are fruitful in getting into credit finances unlike those situated in the town centers. The physical distance between creditors and debtors provide an advanced nature of environmental scrutiny that helps small businesses to acquire finances from the creditors. Therefore, there is a cordial association between the business situation and the access to debt monetary resources to the SME.

According to a survey done by Kamau (2009), found that collateral security is a major constraint to credit access. In addition, 92% of enterprises studied had applied for loans, and were rejected while others had decided not to apply since they knew they would not be granted for lack of collateral security. According to a study done by Vuvor and Ackah (2011) on challenges faced by small and medium enterprises (SMEs) in obtaining credit in Ghana findings revealed that SMEs in Ghana like most SMEs in other countries are faced with major challenges in accessing credit. These challenges include; the inability of SMEs to provide collateral and other information needed by banks such as audited financial statement couple with high cost of loan in terms of high interest rates make it extremely difficult to access bank loans. According to Pandula (2010), the reviewed accounts statements are critical in acquiring credit from banks. In most cases, the banks will need one to provide their statements to qualify for credit.

Using regression analysis as an estimation tool, Hassion and Hart (2016) empirically tested the determinants of small firms growth using cross-sectional data of 406 Egyptian firms from 2012-2013. The study found out that diffusion of innovation positively affects the growth of firms. Innovation activity were used as indicators for determinants of growth while sales, profits ad market share as well as employment size were used to measure growth. However, this study was carried out in Egypt which is institutionally, culturally as well as economically distinct from local context.

In addition this study ignored other measures of determinants of growth such as access to credit, innovation, physical infrastructure, and government policy. Most findings treat the trait of entrepreneurship or even traits that make entrepreneurs to be fruitful. As Åstebro et al. (2014) pinpoint the publication in 1921 of Frank Knight’s book Risk. Doubt and profit usually marks initiation point into a very explosive and serious research about the individual characteristics of investors that align them apart from the usual organization management.

In the years that followed, study has continuously examined personal characteristics that prompt people to enter into investment on their selected route. These findings have costly dwelt on rapid growth with organizations facilitated by venture capital (VC) where business people come across large possibility of their ventures deterioration, and a minimal chance of really encouraging results. In the unsure and serious condition of new pursuit creation, numerous scientists estimate that business visionaries flourish with a solid feeling of individual self-adequacy to execute their dreams and a sharp eye for advancement to recognize new items and markets.

**METHODOLOGY**

The study adopted descriptive survey design. This design is appropriate since it enabled the researcher to gather information concerning the strategic determinants of growth of SME’s in Machakos County. The population on the study was
all the SMEs within the various sub-counties in Machakos County. There were 114,249 SME’s in Machakos County who were the unit of analysis. This is the group from which the sample was drawn using stratified sampling. The unit of observation was entrepreneurs sampled from the target population. The study adopted a questionnaire for data collection. In this method, the questionnaires were delivered through online by email to the respondents due to COVID-19 pandemic restrictions. The respondents were requested to answer the questions and return the questionnaire by email. The questionnaire consisted of a number of questions in a definite order on a form or set of forms.

The collected data was analyzed in accordance with study objectives and data type. Raw data collected from the questionnaires was first cleaned, sorted, coded and subjected to the Statistical Package for Social Sciences (SPSS) software. Creswell (2007) notes that data can be presented using statistical techniques, graphical techniques or a combination of both in order to generate comprehensive conclusions.

FINDINGS
Questionnaires were administered to 384 respondents equitably drawn from each of the eight sub-counties in Machakos County. Out of these, 298 were filled and returned, representing questionnaire return rate of 77.6%. 86 questionnaires were not returned despite elaborate effort by the researcher to have them completed and returned. Saunders, Lewis, and Thornhill (2009) argue that 50% questionnaire return rate is reasonable to facilitate meaningful inferential analysis. The response rate of 77.6% in the current study, therefore, met the criteria set by both Saunders et al. (2009). The researcher, thus, proceeded to data analysis, including inferential analyses.

Descriptive Data Analysis
The general objective of the study was to investigate the strategic determinants of growth of SMEs in Machakos County. Data was collected using likert-type scale (1-5), where 1-strongly disagree, 2-disagree, 3-neutral, 4-agree, and 5-strongly agree.

Access to Credit
The study sought to know the state of access to credit by the respondents. The respondents were asked to, in a scale of 1-5; score various statements relating to access to credit. The scale ranged from: 1-Strongly disagree; 2-Disagree; 3-Neutral; 4-Agree; and 5-Strongly agree. The results were as shown in Table 1.

Table 1: Access to Credit

<table>
<thead>
<tr>
<th>Indicator</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larger SME’s have greater chances of accessing credit</td>
<td>298</td>
<td>4.314</td>
<td>0.612</td>
</tr>
<tr>
<td>Enterprises less than one year of age are not likely to be given credit</td>
<td>298</td>
<td>3.660</td>
<td>1.052</td>
</tr>
<tr>
<td>A business enterprise without financial records is not likely to be given credit</td>
<td>298</td>
<td>3.255</td>
<td>1.345</td>
</tr>
<tr>
<td>Financial records determines the ability of SME’s accessing credit facility</td>
<td>298</td>
<td>3.985</td>
<td>0.725</td>
</tr>
<tr>
<td>An entrepreneur with collaterals is more likely to access more credit than those without</td>
<td>298</td>
<td>3.819</td>
<td>0.811</td>
</tr>
<tr>
<td>Composite Score</td>
<td>298</td>
<td>3.807</td>
<td>0.909</td>
</tr>
</tbody>
</table>

From Table 1, the respondents tended to agree that larger SMEs have greater chances of accessing credit (Mean=4.314; SD=0.612). However, the respondents tended to be neutral on the notion that enterprises less than one year of age are not likely to be given credit (Mean=3.660; SD=1.052).

The respondents also tended to be neutral on the argument that a business enterprise without financial records is not likely to be given credit (Mean=3.255; SD=1.345). The respondents tended to agree that financial records determines the ability of SME’s accessing credit facility...
(Mean=3.985; SD=0.725). Finally, the respondents agreed that an entrepreneur with collaterals is more likely to access more credit than those without (Mean=3.819; SD=0.811).

Overall, the respondents tended to agree that access to credit was indeed an issue as shown by the composite score of 3.807, and standard deviation of 0.909. The relatively high standard deviation, however, implied that there was divergence in opinion in regard to access to credit as a determinant of growth of SMEs.

Table 2: Innovation of Entrepreneurs

<table>
<thead>
<tr>
<th>Indicator</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The personality traits of an individual determine the success of the enterprise</td>
<td>298</td>
<td>4.611</td>
<td>0.728</td>
</tr>
<tr>
<td>Individuals with an internal motivation are likely to not quit in the early stages of growth of their enterprises</td>
<td>298</td>
<td>4.983</td>
<td>0.316</td>
</tr>
<tr>
<td>Individuals with high risk tolerance are more likely to succeed in their business enterprises</td>
<td>298</td>
<td>4.365</td>
<td>0.527</td>
</tr>
<tr>
<td><strong>Composite Score</strong></td>
<td>298</td>
<td>4.653</td>
<td>0.524</td>
</tr>
</tbody>
</table>

Table 2 showed that the respondents tended to strongly agree that the personality traits of an individual determines the success of the enterprise (Mean=4.611; SD=0.728). Further, the respondents strongly agreed that individuals with an internal motivation are likely not to quit in the early stages of growth of their enterprises (Mean=4.983; SD=0.316). Finally, the respondents tended to agree that individuals with high risk tolerance were more likely to succeed in their business enterprises (Mean=4.365; SD=0.527).

Overall, the respondents tended to strongly agree that innovation of entrepreneurs was in deed a determinant of the growth of an enterprise, as shown by the composite score of 4.653, and standard deviation of 0.524.

**Regression Analysis Access to Credit and Innovation on Growth of SMEs**

The study aimed at investigating the influence of access to credit and innovation on the growth of SMEs in Machakos County, Kenya. Data was collected using a 5-point rating scale. Various inferential statistics were interpreted in light of the study objectives. R² was used to measure the proportion of growth of SME explained by each of the determinants. The beta factors were used to measure the correlation between each of the determinants and growth of SMEs in Machakos County. The significance of the beta factors was interpreted at 5% level of significance. The results were as shown in Table 3.

**Access to Credit and Growth of SMEs**

The findings in Table 3 showed that the value of adjusted R squared was 0.736. This implied that 73.6% variation in growth of SMEs could be attributed to the changes in access to credit, at 95% degree of confidence. This showed that 73.6% changes in growth of SMEs could be attributed to changes in access to credit. It was also evident from the findings above that there was a strong positive correlation between the variables as shown by 0.889.

From the analysis of variance statistics in Table 3, the regression model had a fit with the data (F=3.814, P < 0.05). This was an indication that access to credit had a significant influence on
growth of SMEs, at 5% level of significance, since the p-value was 0.1%, which was below 5%.

As shown in table 3 beta coefficient was significant ($\beta = 0.481$, $t = 2.110$, $P < 0.05$). This implied that for every unit change in access to credit there was 48.1% increase in growth of SMEs.

The below regression equation was established.

$$Y = 1.508 + 0.481X_1$$

From the above regression equation, it was revealed that if there were no changes in access to credit, growth of SMEs would be at 1.508. However, a unit change in access to credit would lead to increase in growth of SMEs by a factor of 0.481.

At 5% level of significance, access to credit was found to significantly influence growth of SMEs. The

Table 3: Access to Credit and Growth of SMEs

<p>| Model Summary I |
|-----------------|----------------|-------------|----------------|</p>
<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.889</td>
<td>0.790</td>
<td>0.736</td>
<td>0.22462</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1 (Constant)</td>
</tr>
<tr>
<td>Access to Credit</td>
</tr>
</tbody>
</table>

Innovation of Entrepreneur and Growth of SMEs

The variation in the output variable as a result of changes in input variable was explained by the adjusted R-Squared. Table 4 demonstrated that 60.4% variation in growth of SMEs was explained by changes in innovation of entrepreneur. The correlation between innovation of entrepreneur and growth of SMEs was 0.788. This meant that a unit change in innovation of entrepreneur would cause 78.8% change growth of an SME.

The analysis of variance in Table 4 showed that the data had a significance level of 0.1%. This implied that the data was suitable for drawing a conclusion on the attributes of the population since the p-value was below 5%. At 5% level of significance, the F critical was 2.019; F calculated (4.903), greater than the F-critical. This demonstrates the overall significance of the model. It, therefore, indicated that innovation of entrepreneur significantly influences growth of SMEs.

The following equation was established from the Table 4.

$$Y = 1.445 + 0.421X_2$$

Therefore, if there were no changes in innovation of entrepreneur, the growth of SMEs score would be
at 1.445. However, a unit change in innovation of entrepreneur would lead to an increase in growth of SMEs by a factor of 0.421. At 5% level of significance, innovation of entrepreneur was found to significantly influence growth of SMEs. The significance level for the beta factor was 0.2% which was below the 5% threshold.

The findings implied that a unit change in Entrepreneur’s Innovation would lead to significant change in growth of SMEs. This finding was consistent with the prediction of Asset Based Hypothesis which gives a structure to clarify how business can distinguish reasonable measures to defeat development hindrances, have better access to innovation assets, labor assets, money related assets, common, and framework, and access to the market. In this regard, entrepreneurial innovation is considered a critical intellectual asset which makes a difference between low and fast growth among organizations.

Previous empirical studies by Zhao et al. (2010) found that good faith, receptiveness to encounter, enthusiastic security, and extraversion are emphatically identified with pioneering firm execution as estimated by firm endurance, development, and gainfulness. This was consistent with the findings of the current study which found that innovation of entrepreneur significantly influences growth of SMEs.

Table 4: Innovation of Entrepreneur and Growth of SMEs

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.788</td>
<td>0.621</td>
<td>0.604</td>
<td>0.06210</td>
</tr>
</tbody>
</table>

ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Residual</td>
<td>2.844</td>
<td>1</td>
<td>0.711</td>
<td>4.903</td>
<td>0.001</td>
</tr>
<tr>
<td>Regression</td>
<td>10.875</td>
<td>297</td>
<td>0.145</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13.719</td>
<td>298</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Model Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.445</td>
<td>0.453</td>
<td>3.190</td>
<td>0.002</td>
</tr>
<tr>
<td>Innovation of Entrepreneur</td>
<td>0.421</td>
<td>0.297</td>
<td>2.903</td>
<td>0.003</td>
</tr>
</tbody>
</table>

CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH

The study established that access to credit has significant influence on growth of SMEs in Machakos County. The null hypothesis that access to credit has no influence on growth of SMEs was therefore, rejected. This implied that a unit change in access to credit would have significant impact on growth of SMEs in Machakos County.

The study also determined that innovation of an entrepreneur has significant influence on growth of SMEs in Machakos County. The null hypothesis that innovation of an entrepreneur has no influence on growth of SMEs was, therefore, rejected. This implied that a unit change in innovation of an entrepreneur would have significant impact on growth of SMEs in Machakos County.

The study sought to investigate the strategic determinants of growth of SMEs in Machakos County. The study recommended that an in-depth investigation should be done on operational challenges facing the growth of SMEs since a strategy was only as good as its implementation. The study also recommended that the influence of moderating and intervening factors such as the social-cultural factors should be examined, since that was not within the scope of this investigation.
REFERENCES


