

## **Factors Connected with the Profitability of Small and Medium Enterprises in Eldoret Municipality, Kenya**

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### **Abstract**

*The study investigated the relationship between profitability, bank loans, age of business and the size of small and medium enterprises in Eldoret Municipality, Kenya. Using fixed-effects regression model, the paper was based on a balanced panel data of 115 SMEs of existing firms that have taken loans or currently have active loans, randomly selected in Eldoret Municipality, Kenya. The equation specified profitability as dependent variable and loans, sales, age of business, size of business and interest rate as independent variables. All the data except interest rate have been derived from the primary source/field survey. The results demonstrate that there is interdependence between the SMEs profitability and bank loans, and a significant relationship between profitability and the size of business. For high profitability, increased loans and growth in size of business remain important. The study recommends that the government should formulate policies that will compel commercial banks to relax their restrictive regulations and operations which discourage borrowing, and offer more credit facilities for SMEs. The government should empower the SMEs to access and get credits from the commercial banks through formal and informal entrepreneurship education. The researcher's desire is that this study will stimulate debate on Government policy in relation to profitability and growth of SMEs and through that galvanize public and government support for SME. The study will provide descriptive findings of government policy and SME profitability and will demonstrate the simultaneous impact of financial management practices. In addition, the research study will provide a model of government policy and SME growth and profitability, in which policy will be related to SME growth and profitability.*

**Key Words:** Profitability, Bank Loans, Entrepreneurship Education, Fixed-Effect

### **INTRODUCTION**

The Small and Medium sized Enterprises sector (hereinafter referred to as SME) have been globally acknowledged as instruments for achieving economic growth and development as well as employment creation (Rebecca & Benjamin, 2009). No wonder they have been given serious attention in many parts of the world as well as in the academic field. Countries such as U.S.A, UK, Malaysia, Indian, China, Singapore, Thailand, Vietnam and a host of others have continued to emphasize the importance of entrepreneurship development. The Small and Medium sized Enterprises sector has been touted globally as an engine of economic growth, particularly in developing countries (Panitchpakdi, 2006). However, another factor which developing countries have to consider is the importance of savings for economic growth. Savings at a national level are accumulated through revenue collection, thus there exists a certain tension between

the need to expand the SME sector, on the one hand, and the need to tax the same sector, on the other.

There are many indicators of good performance in business, but one of the most evident indicators of superlative performance is when business leaders gain an advantage over their competitors. Alternatively, superior performance can also be rewarded by keeping the trust and loyalty of customers. Competitive advantage and/or influence in the market is achieved only through the effects of applying various strategies such as technological support, strong investments, organizational culture and practice, efficiency of the suppliers, and the use of appropriate marketing strategy. All of these factors contribute to the organization's performance.

Profitability of SME is an important issue because SME are a significant segment of the economy, despite being individually smaller in size than larger firms. When considered cumulatively, SME exceed the cumulative statistics of larger firms in terms of turnover, customer base, geographical market access and gross profit. SME are also a major source of employment, especially in areas that are underserved by state or commercial networks. SME also make notable contributions towards competitiveness, economic dynamism, and innovation through stimulating entrepreneurship and the diffusion of skills. SME also improve income distribution due to their geographical distribution patterns. SME play a commendable role in capital formation at local levels. In addition, they improve the standard of living of a majority of the population.

In many of the newly industrialized nations including Kenya, more than 98% of all Industrial enterprises belong to the SMEs sector and account for the bulk of the labour force (Tomlin, 2008). It is estimated that SMEs employ 22% of the adult population in developing countries (Kayanula & Quartey, 2000), and provide more employment per unit of capital investment than large-scale enterprises. In Kenya, the SMEs account for about 70% of industrial employment (GoK, 2001) and well over 50% of the Gross Domestic Product (Mambula & Sawyer, 2004).

Thus, being able to find out the factors which improve the profitability of SMEs so that they are successful and grow into conglomerates is of considerable concern to the entrepreneurs and the Kenyan government. Therefore, the importance of small business enterprises cannot be over emphasized also it is believed that small business is beneficial and can adapt to new situations more easily than large corporations. SMEs can also be innovative and it already probably makes a larger contribution pro rata in the economy. With efficient control and management techniques of SMEs the benefit it gives can be much greater.

It is against this backdrop that this paper was considered timely to identify likely problems that may affect the profitability of SME scheme and suggest solutions to enable the policy makers and other stakeholders in the implementation guideline discharge their roles effectively. The thrust of this paper is, therefore, to articulate the challenges posed to the development of a dynamic SME sub-sector arising from some lingering constraints despite current government measures, which were aimed at facilitating the success of the scheme. Hence the need for this study which intends to fill this gap. To fill this gap, this study aims to provide holistic view through empirical study on the factors associated with

the profitability of small scale business in Eldoret, Kenya using econometric analysis to test the hypothesis of the relationship between the profitability of the firms and each of the performance indicators of loans, sales, age of business, size of business and interest. These are the prevailing conditions that form the background to the study

Lack of knowledge of financial management combined with the uncertainty of the business environment often leads SMEs to serious problems regarding financial performances. Regardless of whether an SME is headed by an owner-manager or a hired-manager, if the financial decisions are wrong, the profitability of the company will be adversely affected. Consequently, SME profitability can be damaged because of inefficient financial management, size of loans, sales, age of business, size of business and interest. SMEs have often failed due to lack of knowledge of efficient financial management. Moreover, undercapitalization and uncertainty of the business environment cause SMEs to rely excessively on equity and maintain high liquidity, and these financial characteristics probably affect SME profitability (Storey et al, 1987).

Profitability ratios are viewed as other variables to identify and measure financial characteristics of SMEs. According to Jaggi and Considine (1990), profitability is a crucial indicator for determining the financial position of the firm. The firm is considered financially weak when its profitability is sliding or the profitability is weak compared to other firms in the industry. This study this study, therefore sought to investigate the relationship between small scale business profitability, bank loans, age of business and the size of business, measured by the number of employees in Eldoret, Kenya using econometric analysis.

The objective of this study, therefore, is to investigate the relationship between profitability, bank loans, age of business and the size of business, measured by the number of employees.

## **RESEARCH METHODOLOGY**

The study was conducted in Eldoret Municipality of Kenya of, being a typical County headquarters in terms of the characteristics of SMEs in Kenya, availability of physical and financial infrastructure as well as economic resources. Two methods were used to identify the SMEs, since no comprehensive listing of SMEs is available in the County. Listing of firms from the Eldoret municipality Revenue reports was used to identify the names and addresses of SMEs. The SMEs selected for the sample met the World Bank SME definition for SMEs and SME Solutions Center (<http://www.ssc.co.ke/services.asp>) of having formally registered entity with between 5 and 150 employees, a turnover below US\$ 5 million (Kshs. 425 million), and net assets below US\$100,000 (Kshs. 8.5 million). This roughly corresponds with what is defined as a microenterprise under the World Bank criteria. This study also required that selected firms must have been in existence for 3 years to get meaningful data (OECD, 2005).

A comprehensive structured questionnaire was developed to collect data from the firms on the amount of loans, sales, level of profit, size of business (measured by the number of employees) and business age. The questionnaire was pre-tested with 20 SMEs in two towns of Kitale and Nakuru (both in a neighbouring town) with similar characteristics as

the selected towns in our sample. The study employed the fixed-effects model that involved specifying regression equation that incorporated profit as dependent variable, and loans, sales, age of business, size of business and interest rate as independent variables for the 115 firms randomly selected. The use of profitability to measure performance is in line with profit or utility maximization assumptions that are the cornerstones of many economic theories (Rantamaki- Lahtinen et al. 2007). As cited in Rantamaki-Lahtinen et al. (2007), Penrose (1995) observes that managers try to maximize long-run profits, while Barney and Arikan (2005) regard firm as a profit maximizing entity. The fixed-effect regression model is specified as:

$$\text{PROFIT}_{jt} = \beta_1 \text{LOANS}_{jt} + \beta_2 \text{SALES}_{jt} + \beta_3 \text{BIZAGE}_{jt} + \beta_4 \text{BUSIZE}_{jt} + \beta_5 \text{INTEREST}_{jt} + \alpha_j + \alpha_t + \epsilon_{jt}$$

$\beta_1 > 0$ ;  $\beta_2 > 0$ ;  $\beta_3 > 0$ ;  $\beta_4 > 0$ ;  $\beta_5 < 0$

Where,

- PROFIT<sub>jt</sub> = profit before tax for firm j at time t
- LOANS<sub>jt</sub> = amount of loan obtained by firm j at time t
- SALES<sub>jt</sub> = level of sales by firm j at time t
- BIZAGE<sub>jt</sub> = age of business by firm j at time t
- BUSIZE<sub>jt</sub> = Size of firm j (measured by the number of employees) at time t
- INTEREST<sub>t</sub> = interest rate at time t
- $\alpha_j$  and  $\alpha_t$ , = intercept coefficients, which allow for different unobserved firm specific factor and vector of time series dummies.
- $\epsilon_{jt}$  it is the error component that varies over both individual firms and time.
- $\beta_0, \beta_1, \dots, \beta_5$  are parameters to be estimated,
- $j = 1, 2, \dots, 115$  and  $t = 1990-2003$ .

Table . Results of fixed effects regression of the profitability of SMEs dependent variable – profit

Independent Variables	Coefficients	t-stat.	p-value
LOANS	0.0000000003	2.81	0.005*
SALES	0.0000000002	1.61	0.109
BIZAGE	- 0.153177	-	0.459
-	-	0.741	-
BUSIZE	0.0438390	4.77	0.000*
INTEREST	0.771236	5.07	0.000*
R2	0.768		
Chi2	9576		
RSS	268.89031481		

Source: Author's Computations from Study Sample Data

\*Indicates significance at 5%

Therefore, theoretically, our *a priori* expectations concerning the coefficients of the variables are that LOANS, SALES, BIZAGE and BUSIZE carry positive signs, while the coefficient of interest variable, INTEREST, is expected to carry a negative sign. The data

for the dependent and independent variables used in the regression analysis, except that of the interest rate, were from the primary data from field survey. Data from the interest rate was collected from Statistical Bulletin of the Central Bank of Kenya. The main limitations of the study are the small size of the sample, the exclusive focus on Kenyan entrepreneurs and the reliance on owner-entrepreneurs who may have inflated idea of the true value of their ventures. Another limitation is that the data base does not allow us to capture the extraneous variables, which although may impact on the profitability of SMEs, but cannot be quantitatively measured by the model. These variables include socio-economic and political variables such as government policy on SMEs and the effect of changes in the environment. However, while the direct effect of the studied variables may have been confined, the use of fixed effect on panel data enhances the generalisability of the findings.

### DISCUSSION OF THE FINDINGS

In order to establish the effect of bank loans and other factors on firm's performance /profitability, The econometric analysis was used to test the hypothesis of the relationship between the profitability of the firms and each of the performance indicators of loans, sales, age of business, size of business and interest rate (Table 1).

The coefficient of loan amount was positive and statistically significant and confirms our *a priori* expectations of economic theory. This implies that bank loan is positively related to firm's profitability and that profits of SMEs tend to increase with increasing amount of loans. This result is consistent with simple economic theory which suggests that access to credit should lead to higher profits and further confirms the work of McMahon et al. (1993) that the financing decision impacts upon the profitability of an Enterprise.

The coefficient of sales carries a positive sign, in conformity with our *a priori* expectation of economic theory. This means that profits tend to increase with increase in sales. For profit maximizing firms, a strategy to maintain a high level of profitability requires that the firms must produce quality products which can easily be sold to generate more revenues, especially through effective and efficient marketing strategies.

The coefficient of the age of business (BIZAGE) carries a negative sign, contrary to our *a priori* expectation. This indicates that the older the SMEs are, the less their profitability. Although, this result is consistent with the work of Almus and Nerlinger (1999), that found an inverse relationship between age and growth rate, the study by Stanger (2000) did not support such conclusion. Stanger (2000) argues that the relationship should be positive, since older businesses are more likely to have attained diminishing costs of production over some range of sales and hence be able to operate more economically and efficiently than recently established ones. With regards to the Kenyan environment, the results of the inverse relationship between profitability and age of business may not be that unexpected, because newer firms are involved in a remarkable pace of innovation and technological change that demands a continuous research and their dynamic efforts may lead to higher efficiency, as compared to older firms.

The coefficient of size of business (BUSIZE), measured by the number of employees, conforms to our *a priori* expectation of positive sign and the variable is statistically

significant. This means that as the size of firms becomes bigger, more profits are expected to be realized. This is because larger firms find it easier to borrow money from banks for expansion and hence be able to enjoy the economies of scale from bulk purchasing, and increase the quality and quantity of factors of production such as capital, equipment and machinery and employ more workers which will ultimately increase profitability.

Surprisingly, the interest variable, although statistically significant, had a positive sign contrary to our *a priori* expectation. This implies that the profits of SMEs tend to increase with increasing rate of interest. This counterintuitive result could be accepted in Kenya's case, because, often times, most Kenyan SME pass increased interest rates to the final consumers in form of proportionally higher prices, thus even getting higher profit level.

## CONCLUSION

From the results discussed in this paper, the researcher arrived at the following conclusions. The study has contributed to our knowledge on the series of factors associated with the profitability of small and medium-sized firms in Kenya. The results demonstrate that there is interdependence between the SMEs profitability and bank loans, a significant relationship between profitability and the size of business and a positive relationship between profitability and interest rate. For high profitability, more loans and growth in size of business remain important.

## RECOMMENDATIONS

In view of the above mentioned discussions, implications and conclusions highlighted above, the following recommendations are made for the improvement of SMEs profitability. Based on the above findings, the researcher therefore recommends the following:

1. The findings of the study implies that government should formulate policies that will compel commercial banks to relax their restrictive regulations and operations which discourage borrowing and offer more credit facilities for SMEs.
2. The Government should re-introduce and enforce the mandatory minimum credit allocation by banks to SMEs in the Annual Monetary Policy Circular and Guidelines.
3. Also, the government should empower the SMEs to access and get credits from the commercial banks through formal and informal entrepreneurship education for SMEs to develop their managerial capabilities, accounting skills and overall, be more credit worthy. Certificates of attendance obtained from such trainings should be made a prerequisite to obtain loans.
4. There should be adequate regulations of banks and other financial institutions to effectively provide loans to small business enterprises. There is a need for strengthening the specialized financial institutions to effectively provide a special funding or loans and credit guarantee schemes for SME.

## REFERENCES

- Almus M., & Nerlinger, E.A. (1999). Growth of New Technology – Based Firms: Which Factors Matter? *Small Bus. Econ.* 13(2): 141-154.
- Barney, J.B., & Arikan, A.M. (2005). The Resource-Based View: Origins and Implications. In: Hitt, MA et al. (eds.). *The Blackwell Handbook of Strategic Management*. 1st ed. Malden, USA: Oxford, UK; Carlton, Australia: Blackkee Publishing Ltd: pp. 124 – 188.
- GoK. (2001). Economic Survey. Nairobi: Government Printer.
- Jaggi, B., & Considine, J. (1990), Differences in financial characteristics of owner controlled and non-owner controlled acquired firms, *The Mid-Atlantic Journal of Business*, 26(2).
- Kayanula, D., & Quartey, P. (2000). The Policy Environment for Promoting Small and Medium–Sized Enterprises in Ghana and Malawi. Finance and Development Research Programme Working Paper Series; No. 15, May.
- Mambula, C., & Sawyer, F. (2004). Acts of entrepreneurial creativity for business growth and survival in a constrained economy Case study of a small manufacturing firm (SMF). *International Journal of Social Economics*, 31(1/2), 30-55.
- Mc Mahon R., Holmes, P., Hutchinson P., & Forsaith, D. (1993). *Small Enterprise Financial Management: Theory and Practice*. Sydney: Harcourt Brace.
- Organisation for Economic Co-operation and Development (OECD) (2004). –Small and Medium – Sized Enterprises in Turkey, Issues and Policiesl. [www.oecd.org/agr](http://www.oecd.org/agr)
- Penrose, E (1995). *The Theory of the Growth of the Firm*. 3rd ed. Oxford, UK: Oxford University Press. ISBN 0-19-828977-4: 272.
- Rantamaki-LahtinenL, Vesala H, Vesala K, Ylatalo M, Karttunen J, Tuure V (2007). –How to Measure Success in Rural Small Businessl, A paper presented at International Council for Small Business, 52<sup>nd</sup> World Conference, 13th – 15th June, Turku, Finland.
- Rebecca, E. O., & Benjamin, J. I. (2009). Entrepreneurial competencies: The missing links to successful entrepreneurship in Nigeria. *International Business Research*, 2(2), pp.62-71.
- Stanger, A.M.J. (2000). –Home–Based Business Marginality: A Review of Home–Based Business Performance and its Determinantl; School of Commerce Research Paper Series: 00-17
- Storey, D., Keasy, K. Watson, R., & Wyncarczyk, P. (1987). *The Performance of Small Firm: Profits, Jobs and Failures*. London: Routledge.