FACTORS DETERMINING THE PERFORMANCE OF MICRO AND SMALL ENTERPRISES IN KENYA: A CASE STUDY OF NGONG DIVISION, KAJIADO DISTRICT

BY

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A research paper submitted to the School of Economics, University of Nairobi in partial fulfillment of the requirement for the Degree for Masters of Arts in Economics.
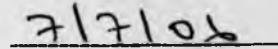
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DECLARATION

This research paper is my original work and has not been presented for a degree in any another University.
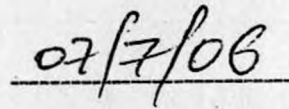
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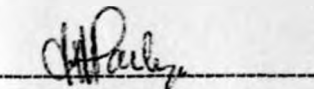
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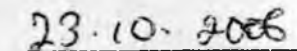
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23·10· 2006

Date

DEDICATION

The paper is dedicated to my husband Cyrus and our children Lydia, Raphael and Joan for their cooperation and understanding during my absence.

ACKNOWLEDGEMENT

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ACRONYMS

ACEG	African Centre for Economic Growth
CBS	Central Bureau of Statistics
CD	Cobb-Douglas
ERSWEC	Economic Recovery Strategy for Wealth and Employment Creation
GDP	Gross Domestic Product
GOK	Government of Kenya
ICEG	International Centre for Economic Growth
IDS	Institute for Development Studies
ILO	International Labour Organization
MFIs	Micro Finance Institutions
MSEs	Micro and Small Enterprises
OLS	Ordinary Least Square
PRSP	Poverty Reduction Strategy Paper
R & D	Research and Development
SACCOs	Savings and Credit Cooperative Societies
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Scientists
TR	Total Revenue
TC	Total Cost
WMS	Welfare Monitoring Survey

ABSTRACT

Micro and Small Enterprises (MSEs) play a crucial role in the development of the Kenyan economy. The sector is not only a major source of employment, goods and services, but also plays a significant role in promoting competition, innovation and enhancing enterprise culture which are necessary for private sector development and industrialization. However most MSEs in Kenya are not able to generate permanent and highly remunerative jobs, have high mortality rate and only a few graduate to medium and large-scale enterprises with high value added products that can compete with internationally produced goods.

The main objective of this study was to determine, model and estimate the statistical significance of the institutional factors that influence performance of the Micro and Small Enterprises using a sample of 150 enterprises in Ngong Division, Kajiado District. The study employs an econometric analysis using Ordinary Least Square (OLS) linear regression analysis where profitability is used as a proxy for good performance.

The study found that sex of entrepreneur, location of business, access to information, age of the business, initial capital, ownership of business and business activities have a positive and significant effect on profitability. However, job training and experience were found to be significant but inversely related to profitability. Education level of the entrepreneur, access to credit, accessibility to advisory services, formality status and membership to support group though insignificant were found to be positively related to profitability.

Given the important role the sector plays in the development of the country, the study recommends provision of a conducive policy environment that enhances the growth and performance of MSEs. Specifically, this study proposes the following policy measures to promote the sector and they include: provision of affordable credit, micro leasing, business management skills, formation of membership support organizations, encouragement of females to venture into more risky but profitable businesses, improvement of access to information, promotion of marketing, product design and development, provision of infrastructure, diversifying research and development and improving the legal and regulatory framework.

CHAPTER 1: INTRODUCTION

1.1   BACKGROUND

It is now recognized that the Micro and Small Enterprises (MSEs) play a crucial role in employment creation and income generation. The MSEs all over the world can easily be established since their requirements in terms of capital, technology, management and even utilities are not as demanding as it is the case for large enterprises. The MSE sector is large in most developing countries, and has been growing fast in recent decades in response to rapid urbanization and the limited ability of the formal sector to solve the ever-increasing unemployment problem. As per the definition, there is no clear and universally acceptable definition of Micro and Small Enterprises (MSEs). In Kenya the MSEs are defined as both formal and informal enterprises employing between one and fifty workers per enterprise[1].

Early researchers in Kenya, treated Micro and Small enterprises as peculiar and peripheral survival mechanisms whose development impact was marginal (Ongile and McCormick, 1999). This outlook was however altered by the (International Labour Organization-ILO, 1972) report on Employment Income and Equity in Kenya". The report underscored the sector's critical role in promoting growth in income and employment. The shift in outlook after 1970s also benefited from realization that a high and rising share of industrial employment was still in the small enterprise sector.

In the mid 1970s, the number of Micro and Small Enterprises, often operating informally, continued to grow in response to increasing poverty and unemployment levels in the country. The trend continued into the 1980s and early 1990s (Bigsten et al., 2000). According to the 1999 National MSE Baseline Survey, enterprises in the sector grew from 910,000 in 1993 to about 1.3 million in 1999 representing an annual growth rate of over 7% per year. According to the (Government of Kenya, 2003), employment within the MSE sector increased from 4.2 million persons in 2000 to 5.1 million persons in 2002 and 5.5 million people in 2003 accounting for over 74.2% of the total persons engaged in employment. As compared to the other sectors of the economy, the contribution of the MSEs to the country's Gross Domestic Product (GDP)

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[1] 1999 National Micro and Small Enterprise Baseline Survey

has been impressive. Available statistics indicate that its contribution grew from 13.8% in 1993 to over 18% in 1999 (Government of Kenya, 2005). Mullei and Bokea (1999) noted that development of entrepreneurs and enterprises was vital for rapid economic growth and development and thus required a coordinated strategic approach.

The Kenyan MSE sector is a mixture of small self-employment efforts and dynamic enterprises covering a wide variety of activities that concentrate mainly in urban areas but also evident in rural Kenya. The enterprises have great potential for creating a variety of employment opportunities, raising incomes for many Kenyan families and thus generating widespread economic benefits. According to the 1999 National MSE Baseline Survey out of the 1.3 million enterprises in 1999, about 66% were located in the rural areas. At the same time out of the 1.3 million enterprises in 1999, 48% were owned by women with 64.3% of the MSEs in trade, 14.8% in services and 1.4% in manufacturing while 7.7% were involved in other activities. The sector also acts as a breeding ground for medium and large industries, which are critical for industrialization.

Micro and Small Enterprises can provide a welfare safety net in alleviation of poverty and serve as a dynamic agent for economic development. The MSEs are cornerstones of employment and wealth creation; provide training and acquisition of skills for the -masses of people outside the formal education and vocational systems cost-effectively. Small enterprises redistribute welfare by attracting a large percentage of poor people seeking strategies for meeting basic needs. The MSEs sector also forms both a basis for self-reliance indigenous industrial development and bedrock for development of local entrepreneurship (Mullei, 2003).

Relative to large enterprises, MSEs are more labour intensive as they manifest higher labour-capital ratio than large enterprises producing similar products. This is important in labour surplus societies with few employment opportunities and limited alternative sources of income (Kimuyu, 2001). Lewis, (1954) describe the informal sector[2] as a reservoir of surplus labour. The sector continues to absorb this surplus labour thus a major source of employment in the Kenyan labour market as the formal sector employment continue becoming increasingly scarce.

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[2] which comprises MSEs

The sector is important for skilled persons who either lose formal sector jobs or are beginners in self-employment. In certain instances, MSEs arise in situations where the formal sector fails to offer goods and services on competitive terms. But generally, the sector is considered as an employer of last resort for those who fail to secure jobs in the formal sector (Bigsten et al., 2000).

Kenya, like most developing countries is not endowed with a large capital stock and equipment. This condition has forced production processes for various commodities to rely heavily on labour intensive informal technologies rather than capital-intensive technologies (Kimuyu, 2001). In generating employment opportunities that can keep pace with the ever increasing labour force, the small and medium enterprises sector is expected to play a lead role. This will only be realized if the entrepreneurs seize the available opportunities to invest in productive enterprises, develop competitive industrial sector thereby create jobs (Government of Kenya, 2005).

However, most MSEs in Kenya are not able to generate reasonably remunerated long-term jobs. Although the sector has continued to play a critical role in the country's economy; its full potential has yet to be tapped due to existence of a number of constraints hampering the development of the sector (Republic of Kenya, 2005). According to the 1999 MSE National Baseline Survey the average Kenyan MSE employs 1-2 workers while over 70% employ only one person with the lower end of these MSEs often confined to subsistence and low value adding activities. Only a few MSEs grow to employ 6 or more workers. According to research findings MSEs have a high mortality rate with most of them not surviving to see beyond their third anniversaries. This phenomenon has made it difficult for MSEs to graduate into medium and large scale enterprises that are needed for industrial take-off and sustainable development (Republic of Kenya, 2005).

According to the 1999 Baseline Survey, 80% of the total MSE employment involved only owners and their family members. The group of employees, referred to as regular hired workers accounted for only 11.6% of total MSE employment. Ninety-six point seven (96.7%) of MSEs employed no more than five employees, with another 2.6 % employing 6-10 persons, meaning that 99.3 per cent of MSEs have no more than 10 employees. Table 1 below shows distribution of the MSEs by Employment size.

Table 1: Distribution of MSEs in Kenya by Employment Size, 1999

Enterprise Size (number of Employees)	Number of Enterprises	Share of Enterprises by Employment Size (%)
1	899,787	70.1%
2	229,759	17.9%
3-5	111,671	8.7%
6-10	33,374	2.6%
Subtotal	1,274,591	99.3%
11-15	6,418	0.5%
16-25	1,283	0.1%
26-50	1,283	0.1%
Total	1,283,575	100.0%

Source: National Baseline MSE Survey, 1999

Though MSEs are essentially viewed as the foundations of the local private sector in Kenya, most of them are constrained by difficulties and either die out or stagnate at very basic levels.

Research carried out indicates that employment generation in the MSE sector has taken the forms of establishing of newer firms rather than expansion of existing ones. Thus one can expect to find more firms being established but not significantly more employment being created (Mullei, 2003). Studies have also shown that very few Kenyan MSEs grow beyond their original size. According to the 1999 MSE Baseline Survey the larger the firm size, the greater the risk of dropping in size over the years, and the lower the size at start, the higher the probability of increasing in size.

In Kenya, the Government has for a long time been concerned about the performance of these enterprises and has instituted various measures geared towards promoting informal sector activities. The Sessional Paper No.2 of 1992 on 'Small Enterprises and Jua Kali Development in Kenya' emphasized the importance of this sector and the Government committed itself toward creating conducive environment for these enterprises. A new policy framework is contained in Sessional Paper No. 2 of 2005 on "Development of Micro and Small Enterprises Wealth and Employment Creation for Poverty Reduction" with an overall goal of developing a vibrant MSE sector capable of promoting the creation of durable, decent and productive employment opportunities, stimulate economic growth, reduce economic disparities, diversify the domestic

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production structure and industrial base and leveling the playing field between MSEs and larger enterprises.

The Economic Recovery Strategy for Wealth and Employment Creation (ERSWEC, 2003-2007) recognizes the serious constraints inhibiting the expansion of this sector and has suggested various measures and policy programmes especially those targeting the rural based enterprises, which account for 65.6% of total MSEs. The Poverty Reduction Strategy Paper (PRSP, 2001) also recognized the important role played by small-scale enterprises in the poverty reduction efforts.

Despite significant efforts made by the Government, development partners and other stakeholders to promote MSEs through technical and financial assistance, a number of constraints still continue to inhibit the performance and realization of the sector's full potential. As such, an investigation into these factors hindering performance of the MSE sector is thus eminent.

According to studies undertaken the general binding constraints inhibiting the realization of the sector's full potential includes poor access to markets, financial and non-financial services, unfavorable policies, legal and regulatory environment, among others. Other factors that are common to all firms such as corruption, regulation of taxes, infrastructure, cultural attitudes and political environment are also important but tend to affect all firms equally across the board and cannot therefore explain variations in production between firms (Kimuyu, 2002). More so, most of the studies undertaken on productivity of the MSEs the production relations are defined around tradition set of factors of production that include capital, raw materials and labour. In addition, micro-institutional peculiarities are equally important.

1.2   STATEMENT OF THE PROBLEM

Much empirical evidence suggests that poverty and unemployment are challenges of great concern to policy makers in developing countries including Kenya. One of the major avenues to addressing these challenges includes the Micro and Small Enterprises (MSE) sector, which cuts across all the sectors of the economy. The MSEs are recognized as providing the most prolific source of employment creation, income creation and poverty reduction. Due to the sector's unique potential for creation of employment and wealth, considerable attention has been focused on the sector in

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recent years. The sector has also come into focus during the recent search for interventions for poverty alleviation under the poverty reduction strategy processes that have been underway in many developing countries.

Though MSEs seem easy to operate, their growth, expansion and competitiveness have remained elusive over the years. In this regard, the potential of the sector would not be actualized if productivity and efficiency were not increasing within the sector. This in turn requires good knowledge of factors contributing to poor performance so as to assist in formulation of policies that would enhance and improve performance of MSEs.

In most cases theory provides no guidance or sends conflicting signals concerning the impact of some phenomena of performance. In such situations, empirical measurement would provide qualitative as well as quantitative evidence. Moreover, in Kenya there is little information on how the small businesses are structured. Such information is crucial in the evolution of appropriate policies for promoting enterprise development and increasing the sector's impact on poverty reduction and overall development.

In this regard, for positive development to take place, a basic structural problem facing micro and small-scale enterprises in Kenya must be solved first. This is because despite enormous support accorded to the sector over the years these enterprises suffer high mortality rate, operate informally and suffer the penalties of informality, and rarely grow or graduate to high value-adding activities. Firms that start small tend to remain small and very little transformation occurs among Kenya's Micro and Small Enterprises. As noted by (McCormick, 1988) most firms in Kenya begin small and remain small thus an indication of stunted growth.

In this research, the context of growth is meant to imply the inability to expand in size/capacity and not only the increase in numbers. An issue that has not been effectively addressed is that of expansion. The problem in this study is therefore to establish why micro and small enterprises are unable to graduate from one level of development to another, i.e micro to small or small to medium.

Most of the literatures carried out consider the broad constraints, which affect performance of businesses across the board. These constraints include; poor access to

markets, financial services, inadequate physical infrastructure, unfavorable legal and regulatory environment and unfavorable policies. However, these factors tend to affect all firms across the board and may not explain variations in production between firms. Given the structure of the MSEs there are other institutional factors, which this study focuses on, that greatly affect their performance. These factors can be identified in two sub-sets; the entrepreneur's personal attributes and the enterprise specific attributes. The bundle of entrepreneur's attributes includes; age, sex, and education achievements while the enterprise specific attributes includes; location, enterprise age, formality status, business activity and ownership structure. An investigation into these factors and their effect on performance of the MSE sector constitutes the problem of this study.

1.3   STUDY OBJECTIVES

The broad objective of this study is to determine the factors affecting the performance of the MSEs sector. The Specific objective will include;

- To determine the factors that affect the performance or success of the enterprises;
- Estimate the relationship between enterprise performance and various factors affecting it;
- Estimate the relative significance of these factors in affecting enterprise performance, and
- Make conclusions and policy recommendations regarding Micro and Small Enterprises

1.4   SIGNIFICANCE OF THE STUDY

Owing to the MSE's sector unique potential for creation of employment and wealth, considerable attention has been focused on the sector in recent years. In Kenya, the MSE sector can play the major role in achieving the development objective as outlined in the government's various blue prints such as Development Plans, Economic Surveys, Sessional Papers, Economic Recovery Strategy for Wealth and Employment Creation 2003-2007 and Poverty Reduction Strategy Paper. The sector has been recognized not only as provider of goods and services, but also a driver in promoting competition and innovation and enhancing the enterprise culture, which is necessary for private sector development and industrialization.

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However, the slow graduation rate of micro-enterprises from micro to small and medium enterprises may be an indicator of the large mortality rate, but this is highly hypothetical. A huge number of small informal firms are started in Kenya, and hardly any of them end up being large formal firms. It's therefore very imperative to carry out this study and offer an understanding of the impediments to growth of these firms. Past studies have always pointed towards lack of finance, access to market and inadequate infrastructure as the key causes for the slow growth of the MSEs. However, these have proved not to be the only causes because even with government interventions through various programmes the situation has not improved.

In addition, the knowledge of MSEs is still rudimentary and incomplete in Kenya. Most of the studies carried out consider the general binding constraints that have inhibited the realization of the sector's full potential. These constraints include poor access to markets and financial services, inadequate infrastructure, unfavourable policy, legal and regulatory environment among others. However, these constraints are not unique to the small firms they equally affect the large enterprises. In addition, not much empirical work has been done in Kenya particularly on the relationship between the MSEs' characteristic and their performance. This study will track the interplay between both enterprise and entrepreneur attributes and enterprise performance as apposed to most studies, which only consider the entrepreneur attribute.

Most of the studies on MSEs carried out in the country are mainly descriptive with only a few of them applying econometric analysis. In addition, the few econometric studies carried out in the country target a particular activity like manufacturing. However, this study will capture the three major activities in the MSEs Sector, i.e. manufacturing, trade and service using primary data. This study captures most of the variables used in other studies using profit function framework with some modification that captures other variables viz., access to information, advisory services, access to credit and membership to support group.

Such an empirical analysis with the identified variable will provide an indication of the potential constraint and insight into how policies for overcoming such constraints may be formulated. In addition, an econometric study on Kenya enterprises will add to the existing literature that will also go along way in helping policy makers. This will help

policymakers in knowing the kind of assistance to be provided to the MSEs and such information will assist in closing the existing information gap.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

The literature review focuses on both theoretical and empirical studies carried out to determine factors affecting the performance of Micro and small-scale enterprises inside and outside Kenya.

2.2 THEORETICAL LITERATURE

According to a report by (Bartlett et al, 2002) much of the economic theory of growth of small firms has been concerned with the relationship between growth and size of the enterprises. The convectional wisdom in economic theory has long held that, due to economies of scale and scope, the growth of firms is positively related to their size. Large firms were typically expected to have advantages over small firms and so grow more rapidly.

However, literature is beginning to show a consistent negative relationship between firm size and firm growth, spanning several studies in many countries. There are several possible explanations of the reasons for the faster growth of small firms. Small firms may grow faster than large firms because they are initially uncertain about their costs; firms enter the market at less minimum efficient scale and over time grow to reach it (Jovanovic, 1982). A second explanation relies on the theories of flexibility and adaptability of small firms and strength of network economies, which can offset the economies of scale enjoyed by large firms. However, in many developing economies the small firms sector has not grown sufficiently to prevent unemployment from rising, nor has it fulfilled its potential as an engine of growth (Acs and Audretsh, 1993; John and Loveman, 1995). The reason is likely to be found in the barriers to growth, which has persisted, in the developing economies.

Though a lot of support has been extended to MSE sector in most developing countries, these enterprises continue to experience magnitude of problems, which affect their performance (Mullei, 2003). Stewart (1990), noted that in many developing countries there have been establishments of all kinds of special MSEs' promotion

programmes and institutions. However, the overall environment in support on the MSEs is still actively inadvertently destructive and some of the programmes that are intended to assist may be doing more harm than good. This is because the programmes are misconceived or in a more general sense, because the authorities feel that they have done what is necessary for small enterprises by establishing the promotional programmes. Government tends to measure what they do by the amount of money they spend which sometimes does make impact on the performance of the MSEs.

Bigsten et al., (2000) noted that in Kenya the first two years of the informal small businesses, were critical for survival since mortality rates were highest around this age. Absence of entry barriers creates severe competition that leads to the demise of the less efficient and poorly managed enterprises. Ng'ethe, Wahome and Gichiri (1989) pointed out that the extent of competitiveness amongst informal sector enterprises is very high due to lack of innovativeness thus producing homogeneous products. The goods and services produced in these enterprises are also primarily destined for the local markets, which are usually very thin. Studies have shown that the self-employed are involved dominantly in low earning, survival activities suggesting that informal sector mainly helps the poor to cope with poverty and also supplements the working poor. Most of their output is of lower quality and usually satisfies local demand basic needs for low and middle-income groups (Bigten et al., 2000).

Andreff et al., (2001), noted that one of the most important macroeconomic factors influencing business creation and growth is access to funding. If credit is relatively abundant and interest rate low, this will have positive effect; all other things being equal on the creation and growth of firms whose self-financing capability are by nature confined to what the entrepreneur can put into business. According to research carried out the MSEs are generally under-capitalized suggesting major operational difficulties in accessing credit and pursuing corporate goals. According to Kenya's 1999 MSE Baseline Survey only 6% of the MSEs successfully applied for and used credit making it unclear how the rest who form the majority meet their working capital and investment needs. Studies on Kenya's manufacturing sector have shown that enterprises that have only limited access to credit also tend to be less productive and cannot always move to point of 'best practice' (Lundvall, Ochoro, Hjalmarsson, 1998).

The inadequacy of physical infrastructure is a principal cause of low levels of investment and unsatisfactory performance of micro and small enterprises. Kenya's Development Plan (1989/1993) identifies infrastructural facilities as a major handicap arising from lack of suitable financial, distributive and marketing infrastructures. The Economic Recovery Strategy Paper, (2003) has also identified poor infrastructure as a critical factor that constrains profitable business in Kenya. The poor state of the country's road network adds to the cost of producing and marketing of goods and services, thereby rendering them less competitive than imported substitutes. Other infrastructural problems include inaccessibility to land, workspace, feeder roads, electricity and other utilities.

Kenya's MSEs are characterized by low levels of technology, inappropriate technology, and inadequate institutional capacity to support adaptation and absorption of modern technological skills. In addition, they also suffer due to lack of information on existing technologies and their potential for increased trade. Consequently, the sector continues to experience low productivity, poor quality and limited range of products, resulting in low competitiveness of products from MSE's products vis a vis imports (Republic of Kenya, 2005).

Other binding constraints that affect the performance of MSEs includes; weak linkages between MSEs and large enterprises leading to inadequate technological transfer and development, poor information flow, weak sub-contracting arrangements and inadequate marketing opportunities to promote expansion, and especially vertical growth of MSEs.

Livingstone (1975) noted that despite government efforts to assist the small-scale enterprises there are many causes of failure of these businesses, which he described as "Comprehensive failure". The problem has been identified that despite government's efforts to provide assistance, there are other factors that hinder enterprise performance in this country.

In this regard, apart from the constraints outlined above there are other factors which relate to institutional peculiarity that have effect on the performance of these enterprises. These are the micro-level institutional factors, which impact on performance of the MSEs. These factors describe the entrepreneur's personal

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attributes and the enterprise specific attributes and their relationship with enterprise performance. The bundle of entrepreneur's attributes includes; age, sex, and education achievements while the enterprise specific attributes includes; location, enterprise age, formality status, regularity of operations, business activity and ownership structure. These variables embody institutional resources that determine the ability of enterprises to engage other institutional provisions that shape the performance of enterprises (Kimuyu, 2002).

According to Schumpeter (1934) the firm's survival and possible growth depend on the entrepreneur's individual characteristic and on his or her capacity to adapt to the economic environment. The entrepreneur's mission according to Schumpeter is to seek out the opportunities and resources that need to be applied in order to obtain a new production function from which he or she can derive the temporary advantage and extraordinary income accruing from innovation.

Platteau, (1994) noted that in traditional societies, individuals occupied specific positions and the roles they played were determined in advance by their social positions including those that were derived from sex and age[3]. The discharge of such functions and roles did not generate their differentiated existence but simply confirmed it. For this reason "an individual is not socially recognized because he performs this or that particular task; what he performs in accordance with an a priori social rule defining his social identity" In these societies, individuals and their specific attributes mattered because each was personally dependent on the social agency that ascribes them a specific natural place. A person therefore exercised responsibilities, including economic responsibilities not on account of comparative advantage but simply on the basis of astrictive principles found in the specific society. Personal attributes embodied bundles of institutions that affected business approaches and outcome.

According to (Kimuyu, 2002) an entrepreneur's age is important in the sense that it tends to closely correlate with business experience and access to resources through personal acquisition and/or inheritance. Young persons may not have acquired or inherited assets with collateral values that can create a bridge between business and financial markets. In this regard, this anticipates a positive impact of entrepreneur's age and enterprise performance.

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[*] These roles have been found to have a material basis as argued in Silberschmidt (2001).

Chuta and Liedholm (1985), noted that education of the entrepreneur may enhance a person's managerial and technical skills and consequently influence his or her ability to operate the enterprise. The same views are supported by (Mullei, 2003). However, (Aderson, 1992) noted that people with poor education and little or no formal training succeed in establishing profitable business. However, he concluded that education was not an unimportant to business success.

A study by (Fisman and Isham, 2000) suggested that the membership in business support group was important in accessing business information and therefore had productivity consequences. Social capital facilitated the adoption of technology and helped circumvent contract enforcement problems that undermined trade credit. Secure property rights were also important for investment, enterprise growth and performance. While contestable property rights, on the other hand undermined productivity and enterprise performance.

Child (1973) identified transport, raw materials and machinery and equipment as major constraints towards performance of enterprise. Thus, availability of raw materials at affordable prices and the right quality was an important determinant of success. His study found a positive relationship between quality of raw materials and quality of output. The same views are supported by (Page and Steel, 1984) who emphasize the availability of raw materials as a critical component.

Lack of basic skills in business management and entrepreneurship is a major drawback in the growth and development of the MSE sector. It has been claimed that rather than physical capital, the main constraint in many developing countries is skills. This therefore suggests a positive relationship between an entrepreneur's educational attainment and enterprise performance (Kimuyu, 2001).

Kimuyu (2002) noted that enterprises located in urban areas tend to have greater access to business services, enjoy larger local product demand than those located in the rural areas and therefore perform better purely on this account. In this regard it has been hypothesized that urban location has positive effect on enterprise performance.

Jovanovich, (1982) noted the importance of age of an enterprise in productivity. In his study it was expected that older firms were generally more efficient than younger ones due to lessons of experience. Assuming that Kenyan MSEs conform to this theory, we expect the age variable to have positive effects on productivity. A positive impact of the age variable may result from accumulation of experience that translates into an improvement in enterprise performance. This view is also supported by (Kimuyu, 2002) and Chuta et al., (1985) where they both emphasized that the greater the experience or greater number of years operating a firm would be expected to earn higher economic profits than those with fewer years experience.

Bigsten et al., (2002) noted that significant proportions of small firms in Kenya are unregistered and therefore operate informally. The majority of those that start informally remain unregistered and do not perceive such registration as beneficial. They therefore prefer to operate informally. Some register well after start-up, however, late registration is motivated by felt need to put the business operations on a legal footing. According to research carried out in many developing countries, many small enterprises start informally to avoid registration related costs. Secure property rights over business and premises on which MSEs operate have a definite effect on enterprise performance. Businesses that operate from temporary premises are often subject to disruptions that distort continuity and productivity (Mwangi 2001). Similarly (Lundall, Ochoro and Hjalmarsson 2001) conclude that informal firms are less technically efficient than formal ones especially those engaged in manufacturing activities.

According to (Chuta and Liedholm, 1985), entrepreneurs who keep financial records are expected to be more successful than those who do not. The underlying assumption is that record keeping should enhance the managerial ability of the entrepreneur and thus affect the firm's economic profit. The same view is supported by (Mullei, 2003).

Enterprises with large amount of initial capital are expected to earn higher economic profits than those with small amount of such capital. The underlying logic for this is that given the imperfect capital market, one might expect a considerable advantage to accrue to the entrepreneur with access to large amount of initial capital, which would enable the entrepreneur to start on a larger scale and better exploit the market opportunities present (Chuta and Liedholm, 1985).

McCormick (2001); Parker & Torres, (1994); Kimuyu & Omiti, (2000); ILO (2004) noted that women owned small enterprises are more likely to be informal, usually start smaller, use less start up capital, grow slower if at all, have more limited access to credit and more often operate from less permanent premises as opposed to their male counterparts. The underlying assumption is that women are more vulnerable to chronic poverty because of gender inequities in the distribution of income, access to productive inputs such as credit, access to and control of property and earned income, multiple roles of women, inadequate access to education and training, as well as gender biases in labour markets. Kinyanjui and Munguti (1999) in their study on micro and small enterprises in Kenya noted that women prefer enterprises that do not conflict with their traditional gender roles. Also their involvement in household and family responsibility dictates the numbers of hours they can spend at the business location.

McCormick (1988) considers success as contingent upon the business ability to generate sufficient profits to ensure its survival. Hence good performance can be properly defined in terms of profitability. Page (1979) also argues that entrepreneurial success can be measured using the rate of profit on the rate of growth of the firm, while Chuta (1985) argues that entrepreneurs must be profit motivated.

2.3 EMPIRICAL LITERATURE

Empirical analysis continue to shown that the MSE operate in a complex environment and are confronted by a diverse array of constraints. The following studies have looked at the impact of the institutional attributes on MSE business performance.

Harris (1969) in his study on conceptual framework for analyzing the relationship between social political and economic variables; entrepreneurship and economic growth using 269 Nigerian firms ran a regression equation between observed profitability of the firm and characteristics of the entrepreneurs. He assumed no Multicollinearity in the explanatory variables and that they affected the dependent variable profitability in an addictive manner. In his model

$Pr = C + a_1 Ind + a_2 Eth + a_3 Ed + a_4 Exp + a_5 Inov + a_6 Res + a_7 Pol + U$
where
Pr = Profitability   Indu = Specific Industry or regional
C = constant   effects

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Ed= Education   Pol = Political involvement
Eth= Ethnic group membership   Res = Access to resources
Inov = Innovational activities   U= random error term
Exp=Experience

According to his results the R^2 ranged from 0.13 to 0.57, which though low was found to be statistically significant given the crude measures of entrepreneurship performance. According to his results there was strong relationship between small-scale entrepreneurial performance and formal education. He argued that as business becomes of large scale and of greater technical complexity skills which are normally acquired through formal education becomes important to entrepreneurs. His results also strongly indicated that entrepreneurs with greater experience were found to earn higher profit. Experience was considered both in terms of years and useable relevance of the particular experience for imparting skills and knowledge. On access to resources the results indicated that initial capital was not a serious obstacle since a firm could start on a small scale and grow through reinvested profits. However, coefficient of availability of loans for expansion purposes was found to be extremely important.

Matsebula (1986) in his study of entrepreneurship success in Swaziland's informal sector using data from Swaziland with a profit function framework he used different forms of education such as formal academic education, primary education, formal vocational training to capture some personal attributes of the entrepreneurs. He also looked at the various categories of activities undertaken by MSEs entrepreneurs in Swaziland. His model took the following form;

$lnProf = CONST + a_1 Educ_1 + a_2 Educ_2 + a_3 TRF + a_4 TRI + a_5 JOB + a_6 lnQKR + a_7 lnQHR + a_8 lnWAGE + a_9 lnCAP + A_{10} PREM + a_{11} FIN + a_{12} COOP + ln U$

Where

ln = Natural log	COOP = Cooperative membership
WAGE = wage rate per hour	EDUC2=Primary education
PROF= Operating Profit per annum	TRF=Formal vocational training
PREM = premises	TRI=Informal training
CONST = Constant	JOB=Previous job
FIN = finance	QKR=previous job
EDUC1 = Formal education	QHR=output capital ratio

QHR=output labour ratio   U =disturbance term

CAP=Replacement value of fixed assets

According to his results for the eight activities, which were considered formal vocational training, was found to be significant at 10% for traders while informal training was significant at 2% level for sewing, knitting and tailoring and at 10% level for woodwork. The two variables were however insignificant for all the other activities considered. The coefficients to these variables had positive signs. The overall results were found to be significant both at 2% and 10% level of significance. Adjusted R^2 showed that 71-91% of the variation in the dependent variable was explained.

Child, (1973) carried out an empirical study in Kenya using a sample of 87 small firms from western province, Nyeri, Embu and Machakos districts. The objective of the study was to reveal the characteristic of entrepreneurs of small-scale enterprises with an insight into the problem of these firms in order to suggest specific policy guidance. He found different results as regard to relationship between education of entrepreneur, initial capital and profitability of the firm. The results revealed that formal training was significant but only for a minority of the entrepreneurs contacted. The analysis argued that experience is the most important factor and that formal education requirement has not imposed a serious barrier to entry. The study found relative importance of apprentices where in total 1/3 of the sample had apprenticeship programs. According to the study majority of the workers learn their trade on-job training or in an apprenticeship program in the MSE sector its self or in the modern sector. The study also revealed that initial capital requirement is very modest. According to the analysis the initial investment among firms in the sample was Kshs. 500, Kshs. 1000 was enough for 50% of the firms to get started. 75% of the firms needed less than Kshs. 4,000 at entry where normal saving was the normal source of capital funds at the time of establishment. However, the study showed that improved management practices improve profitability and reduce failure rate among small rural firms. According to the study most of the frequent mentioned complaints was about access to raw materials, which was based upon distance from the source of supply and aggravated by transport problem and lack of access to services of common carrier.

Chuta and Liedholm (1985) in their study on employment and growth in small scale industry an empirical evidence and policy assessment from Sierra Leone with a sample

of 70 MSEs found similar results as above. The objective of the study was to determine the characteristic of entrepreneurs that may influence his or her performance and ascertain which entrepreneur characteristic if any are statistically associated with successful or economically profitable firms. The study looked at several entrepreneurs' characteristics that can be hypothesized to have an important effect on the economic performance of small-scale firms. His model took the following form;

$$Pr = a + b_1 Ed + b_2 Ex + b_3 Bk + b_4 IC + b_5 RP + b_6 FO + \varepsilon_i$$

where

Pr= return to entrepreneur	IC=initial capital
a= constant	RP= reinvested profits to finance
Ed=formal education	expansion (dummy)
Ex=age of the business	FO= entrepreneur father was a farmer
Bk= business account	or not (dummy)

The results of the regression analysis of the equation based on the sample of 70 small-scale industrial firms were as follows;

$$Pr = -1,057.0 - 593.9\ Ed + 56.7\ Ex + 3,156.9\ Bk + 0.37\ IC + 1,147.7RP - 554.3FO$$
$$\quad\ (1,240)\quad\ (467)\qquad\ (23.5)\qquad (866.4)\qquad\quad (0.65)\quad (542.0)\quad\ (559.1)$$

According to the results the adjusted R^2 for the equation was found to be 0.59%. The cross-section analysis results indicated that the equation had provided a reasonably good estimate of the underlying entrepreneurial characteristics that affect the economic returns to the entrepreneur. However, unlike other studies the relationship between formal education and entrepreneurial success is surprisingly weak. Although not significant educational coefficient is negative showing perhaps that formal education and entrepreneurial performance may be inversely related. According to his argument more educated entrepreneurs may undertake several different business activities thus their effectiveness in any one may be diminished. According to the results experience of entrepreneurs do appear to have important bearing on the entrepreneurial success. Experience coefficient was found to be positive and significant at the 5% confidence level. Experience thus would appear to be more important determinant of entrepreneurial success than formal education. These sentiments are similar to those provided by (Child, 1973).

According to the results entrepreneurs who keep some rudimentary records (accounts) appear to be more successful than their counterparts who do not. The record-keeping coefficient is not only positive but also significant. The results of the analysis also reveal that firms with access to large amount of initial capital were not necessary any more successful than those commencing business with small mounts. Although the initial capital coefficient was positive it was not statically significant. The same results were found by (Child, 1973).

McCormick (1988) studies 284 small scale manufacturing firms in Nairobi, Kenya with an objective to explore the potential of small enterprises to contribute to economic development. She addressed issues of profitability, capital accumulation and gender focusing on tailoring, carpentry, metal workers and shoemakers. The computed mean and variance showed that female owned businesses which are heavily concentrated in textile work were paradoxically less likely to be profitable and to accumulate capital than male owned firms. Involvement in straddling and newness of female owned business provided tentative explanation of these differences. According to the results there is a positive relationship between formality and success of the business since formal firms accumulate capital more than informal ones. In her model, capital accumulation is treated as profit ploughed back into the enterprise and thus connects this with the success of the business. This is supported by Chuta in his 1985 survey in Sierra Leone where he argued that firms enter business to make profits and cites shortage of capital and lack of demand as problems facing small-scale enterprise, in addition to poor management and poor quality skills.

Mugo, (1991) in her study on determinants of entrepreneurial performance in small-scale firms in Kenya, Mathira Division, Nyeri district expressed the same sentiments as above. The broad objective of her study was to determine and assess factors that affect the performance of entrepreneurs in small scale manufacturing enterprises. Profitability was used as proxy for performance and was regressed on factors identified as having influence on entrepreneurial performance, which included job training, experience, age, innovation activities, sex, business management practices, availability of inputs, initial capital and capital labour ratio. The results showed that innovation activities, business management practices and availability of inputs have positive signs as expected and are significant at both 90% and 95% level of confidence. The level of initial capital and

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capital labour ratio were found to be positively related to profitability and are only significant at 80% level of confidence. Experience of entrepreneur though insignificant is positively related to profitability. Sex of the entrepreneur and availability of inputs are positively related to performance of the entrepreneurs and are statistically significant at 90% and 95% level of confidence respectively. However, the study differed from other - studies in that on-job training and the age of the entrepreneurs were both found to be insignificant. With exception of the two, all other variables yielded the expected signs.

Empirical study by (Kimuyu and Omiti, 2000) on institutional impediments to accessibility of credit by micro and small-scale entrepreneurs in Kenya looked at the various institutional attributes. The study sought to explore the supply and demand side problems that constrict the component of credit market relevant to MSE sector and suggesting intervention for addressing such problems to improve their performance. The study used data generated through the MSE Baseline survey supplemented with a quick follow up survey on some of the credit related issues not fully addressed in the Baseline Survey. Descriptive statistic and modest econometric approach were used to explore the relationship that sheds light on the nature of financial market relevant to MSEs in Kenya. The result indicated positive relationship between the age of both the enterprise and owners and inclination to seek credit. According to the study an analysis of enterprises that closed down indicates that more than one third of such enterprises closed for luck of working capital. This was established to be the most important reason for business closure as stipulated in Table 2 below;

Table 2 : **Reasons for Business Closure**

REASONS	RESPONSE RATE
Shortage of working capital	36.6
Personal reasons	20.0
Too few customers	14.3
Started another business	13.3
Too many competitors	6.7
Other reasons	9.5
Relevant sample size (n)	105

Source: computed from 1999 MSE Baseline Survey

On the issue of formality and gender, the study concluded that enterprises owned by males are more likely to seek credit than those owned by female, as do formal

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enterprises[4] relative to informal ones thus impact of formality is statistically significant. According to the study, the older the enterprise and entrepreneurs, the more likely that the latter will seek business loan. However, the study noted that most of the enterprises do not probably live long enough to build contracts and reputation needed in seeking out and making u se o f credit. In Kenya the mean age is found to be 4.2 y ears. The study also concluded that enterprises that have sole proprietorship type of ownership are less inclined to seek credit relative to those under other ownership structures.

In another study, which was more modified than most of the studies, reviewed, (Kimuyu, 2002) focused on impact of micro-level institution on revenue generation by MSEs in Kenya. He used descriptive and econometric results based on secondary data generated through the 1999 baseline survey of micro and small-scale enterprises in Kenya. The objective of the study was to explore the impact of micro-level institutions on revenue generation by micro and small-scale enterprises in Kenya. Using an augmented C obb-Douglas p roduction m odel, which includes a n a ssortment of micro-level institutional variables, the model was represented by:

$$Q=AK^{\beta_1}\ L^{\beta_2}\ R^{\beta_3}\ e^{(\sigma_1 I_2 + \sigma_2 I_2 + \sigma_3 I_3 + \ldots \ldots U)}$$

where

Q =Output
K= Capital
L= Labour
R= Raw materials

β_is and σ_is are estimated coefficients

Taking the natural logarithms of the model on both sides of the above equation to linearize the model he obtained the following equation:

$$LnQ=\beta_0 + \beta_1\ lnK + \ \beta_2 lnL + \ \beta_3\ lnR + E_{i=1}\ \sigma_i\ I_i + \mu$$

To explore the impact of micro-level institutions[5] on enterprise performance, he estimated the model by applying OLS method on the extracted data. The results showed that female ownership, informality and sole proprietorship have negative effects on the ability to generate revenue. Such ability, however increase with entrepreneur's age, e ducation and membership in b usiness s upport g roup. T he s tudy a lso r evealed

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[4] These are enterprises that are registered
[5] Micro level institutional variables included; Age of entrepreneur, education achievement, membership to business support group, age of enterprise, business activity, location, regularity of operation, formality status and ownership structure

that rural-based enterprises and those that are irregularly operated are less productive than those that are urban based and regularly operated. The model is more modified and captures variables, which have been left out in the previous models such as formality status, membership in support group, locality, regularity of operation and ownership structure.

2.4   OVERVIEW OF THE LITERATURE

The reviewed documents indicate that the MSEs sector is very important in regard to employment creation, income generation and poverty reduction. Further, the studies identify the various factors that affect the performance/growth of the MSEs, which includes, institutional, market, financial and social barriers. Of importance to this study are the micro-level institutional barriers such as education, age of entrepreneur and enterprises, initial capital, experience, sex, job training and formality of business, availability of raw materials. Only Kimuyu (2002) and Kimuyu and Omiti (2000) focused on business activities, locality, formality status and ownership structure. However the studies reviewed do have various setbacks, which are going to be addressed by this study for improvement.

Most of the studies reviewed consider entrepreneurship as the most important determinant for performance of the MSEs thus focusing on mainly on entrepreneur's characteristic without reference to the enterprise attributes (Matsebula, 1986; Chuta and Liedholm,1985; and Mugo, 2001). However, this is inadequate as enterprise characteristics equally affect the performance of the MSEs thus it would be more comprehensive to include them.

Most studies found out that lack of education is a major constraint to the success of the enterprise (Harris 1969; McCormick, 1988; Kimuyu and Omiti, 2000; Kimuyu, 2001; Kimuyu, 2002). However, some studies revealed a weak relationship between formal education and performance of MSEs. Some explanations suggest that this weakness might be that formal education is competitive with learning on the job (Child, 1973; Chuta and Liedholm; 1985). Such inconsistency necessitates the need for further empirical studies to establish if education actually affects the performance of the MSEs.

According to the studies reviewed, capital (both working and initial capital) and credit facilities have a share in explaining the business profits. However, some studies do not

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show any significant relationship between initial capital and profitability of the firm (Child, 1973 and Chuta and Leidholm, 1985). This study will use primary data in Kenya to address this inconsistency.

In most of these studies profit has been used as a proper success indicator (Child, 1973; Chuta and Liedholm, 1985; McCormick,1988; Mugo 1991). However, two of the reviewed studies used output[6] and productivity[7] as indicators to measure performance, which might not be a good measure of performance among the MSEs. This study will also use profit function in linear regression analysis.

Moreover, most of these studies are mainly descriptive with only a few econometric studies. In addition, some of the few studies that are based on econometric method of analysis are country specific and use secondary data (Harris, 1969; Chuta and Leidholm, 1985; Matsebula, 1986), which cannot be used to generalize for Kenyan. In addition, the few econometric studies carried out in Kenya targets only a single activity, manufacturing (McCormick, 1988; Mugo, 2001; except (Kimuyu, 2002) who targets other activities but uses secondary data. This particular study will be country specific giving focus to other sectors' activities using primary data. This will give a clear picture in totality of the effect of institutional variable to performance of the MSEs.

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[6] Kimuyu (2002). "Micro-Level Institutions and Revenue Generation: Insights from Kenya's Small Business Sector,
[7] Igbekele and Adebiye (2003). "Efficiency of Micro Enterprises in the Nigerian Economy"

CHAPTER 3: METHODOLOGY

3.1   INTRO DUCTION

This chapter presents the conceptual framework, model specification, model estimation, scope of the study, hypothesis, data analysis, data source and sampling procedure used in the study.

3.2   CONCEPTUAL FRAMEWORK

The appropriate economic model to analyze the problem is based on the theory of the firm. In economic theory it is assumed firms have one major objective, which is profit maximization. A profit-maximizing firm chooses both its inputs and its output with sole goal of achieving maximum economic profits. This means the firm seeks to make the difference between its total revenue and total cost as large as possible. Profit is maximized when cost is minimized and this is the goal of every entrepreneur. In this regard, every firm's problem is to maximize profit by choosing a mix of the factors of production that maximize profit. The essence is the ability of the business to generate sufficient profit to ensure the firms' survival. The general profit maximization aspect is given as;

Max Π = TR-TC

Π = Q(P-C)

where

TR=Total Revenue TC= Total Cost   Π = Profit Q=Output   C=cost   P=Price

In a competitive environment in which the Micro and Small Enterprises firms operate, only those firms making profits are able to survive. In developing a suitable model for this analysis, we assume that the objective of undertaking any economic activity is profit maximization. In the model, profitability is used as a proxy for good performance. The environment into which the sector is operating will determine whether an enterprise will be profitable or not. The identified factors will serve as working hypothesis against which enterprise performance will be assessed.

Profit can be treated as returns to the entrepreneur as a result of correct decisions made in the present to bear fruits in the uncertain future. Hence good performance of an entrepreneur can be indicated by profitability of his enterprise.

The model is specified in general linear form as below;

$$PROF = \delta + \beta X + \varepsilon_t$$

where

X = vector of variables

δ, β = parameters to be estimated and the ε_t error term.

The actual equation estimated is specified on the basis of variables thought useful in explaining profitability of the firm and hence performance as stipulated below.

3.3   MODEL SPECIFICATION

The study identifies two sub-set of factors, one constituting a bundle of factors that describe the entrepreneur's personal attributes and another consisting of the enterprise specific attributes. The bundles of an entrepreneur's attributes that are of interest in this analysis are; age, gender, educational achievement and level of skills attained, job training achieved. On enterprise specific attributes these are; age of the enterprise, formality status, business activity, ownership structure, and location of the business, availability of raw materials and initial capital.

The model specified tries to capture the relationship between profitability and the twelve variables most of which are covered in the literature review outlined above. However, the study also includes other four variables; membership to support group, access to information, advisory services and credit which are considered equally important in determining the profitability of the MSEs. So the model is specified as

PROF=f(EDU, JTR, AGEe, AGEb, SEX, ICAP, ACTI, OWN. LOC, AVI, FSTA, REX, ACR, AAS, AIF, MEMB, U)

Where,

PROF = Profitability of business

EDU = Level of education of the entrepreneur

JTR = Job Training in years

MEMB=Membership to support group (dummy Yes=1 No=0)

AGEe = Age of the entrepreneur in years

AGEb = Age of the business in years

SEX= Gender of proprietor (dummy) 1=Male or 0=female

ACTI = Business Activity (trade, manufacturing, service (dummy)

OWN = Ownership structure (dummy) Sole proprietorship=1, family owned=0

LOC = Location of the enterprise (dummy) Town=1 Rural=0

ICAP= Initial capital

AVI = Availability of raw materials (dummy) Yes=1 No=0

FSTA= Formality status (dummy Formal=1 Non-formal=0)

REX= Relevant experience in years

AAS= Access to advisory services (dummy) Yes=1 No=0)

AIF= Accessibility to information (dummy) Yes=1 No=0

ACR=Access to credit (dummy) Yes=1 No=0

U= Random error term

The equation estimated took a log-linear function augmented by dummy variables. This was to enable us to capture the influence of those important variables that are not quantitative. Specifically we estimate the model above as shown below;

$$LnPROF = \beta_0 + \beta_1 EDU + \beta_2 JTR + \beta_3 LnAGEe + \beta_4 LnAGEb + \beta_5 SEX + \beta_6 ACTI + \beta_7 OWN + \beta_8 LOC + \beta_9 LnICAP + \beta_{10} AVI + \beta_{11} FSTA + \beta_{12} LnREX + \beta_{13} ADS + \beta_{14} AIF + \beta_{15} ACR + \beta_{16} MEMB + U$$

Where,

Ln stands for natural log

Bi are structural coefficients for the institutional variables

B_0 stands for constant

An econometric analysis is sought to track the direction of the impacts of these institutional factors on performance. Log linear regression analysis is used in this study due to its computational simplicity. A log-linear form of the equation enables researcher to interpret regression coefficients as elasticities. According to (Johnston and DiNardo, 1997, Mukras, 1993 and Maddala, 2002), log-linear transformation is convenient because of its simplicity, easy to interpret since it is associated with direct estimates of elasticities.

3.4 MODEL ESTIMATION

The estimation of the regression equation is done using Ordinary Least Square (OLS) technique. This provides us with the individual effects of each variable on profitability. OLS method is preferred because of its convenience, simplicity and low variance.

3.4.1 Hypothesis testing

Hypothesis to be tested are summarized in Table 3 below;

Table 3: Hypothetical Impact of Micro-level Institutions factors on Enterprise Performance

Variable	Direction of impact	Explanation of Expected Results
Gender of proprietor: Male=1 Female=0	+ -	It is expected that female owned enterprises are less profitable since women are more vulnerable to chronic poverty because of gender inequalities in distribution of income, access to productive inputs, multiple role of women and inadequate access to education.
Age of entrepreneur	+	As entrepreneur's age increases it is expected that their businesses are more profitable due to gained business experience and access to resources through personal acquisition and inheritances.
Educational achievement	+	Increase in education is expected to lead to higher profitability as it enhances a person's managerial and technical skills and consequently influencing ability to operate the enterprise.
Membership to business support group	+	Membership to business support group is expected to have profitability consequences as it opens doors for tapping network externalities.
Job training	+	It is expected that job training enhances the skills of the entrepreneur and hence this influences his or her ability to operate the enterprise.
Age of enterprise	+	Older firms are likely to be generally more efficient than younger ones due to lessons of experience, which translates to improvement in enterprise performance.

Business activity: Trade
                          Manufacturing
                          Service
	+ -
	+ -
	+ -
		Trade activities are expected to be more profitable than other business activities as trade does not involve additional cost of transforming the raw materials.

Location: Town =1 Rural=0	+ -	Rural based enterprises are likely to be less profitable than urban based since urban based have greater access to business services.
Formality status: Formal=1 Non-formal=0	+ -	Informal enterprises are less profitable since these enterprises face major penalties due to constant

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		harassment and reduced access to services. Secure property rights are considered important for investment, enterprise growth and performance
Ownership structure: Sole proprietor=1 Family=0	+ - + -	Sole proprietorship are likely to be less profitable since this implies owner management, that promote concentration of control at the expense of opportunity to pool managerial capability that is important for performance
Availability of inputs	+	Availability or raw materials at affordable prices and right quantity is likely to be an important determinant of success.
Initial capital	+	Enterprises with larger initial capital are expected to earn higher profits since they are able to start on a larger scale and exploit market opportunities.
Access to credit	+	It is expected that accessibility to credit provide MSEs with capacity to exploit opportunities, which can facilitate their growth.
Access to Advisory services	+	Accessibility to advisory services enhances profitability of the firm since enhances business management skills, refine production techniques, control systems and marketing strategies.
Access to information	+	Entrepreneurs who have access to information are more likely to be successful as information enhances the managerial ability and resource accessibility.

3.4.2 Data Analysis

The collected data was coded, entered and analyzed using Statistical Package for Social Scientists (SPSS), which is best, designed for qualitative data. The package is chosen because of its simplicity than other packages, which are found to be sophisticated than SPSS. Besides linear regression, correlation analysis is carried out to measure the relationship between variables and also to establish the strength of linear association between these variables.

3.4.3 Diagnostic Test

Since the study is developed on a single equation regression model, the problems associated with this kind of the model is tested i.e multicollinearity.

Multicollinearity
Possibilities that some independent variables in the model may be highly correlated with each other cannot be ruled out. These possibilities prompt a need to test for the presence of high collinearity among the repressors. In this case a Multicollinearity test

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was performed so as to avoid structural parameter estimation problem and reversing sign leading to incorrect conclusions. Multicollinearity is a common feature in cross-section data and is said to be present if two independent variables are linearly dependent.

There is no specific measure of multicollinearity but there are some rules of the thumb or indicators that can be applied to test if there is evidence or presence of multicollinearity (Gujarati 2003). Some indicators include;

(i)   Wide confidence interval due to large standard errors,

(ii)   High R^2 but few significant values,

(iii)   Wrong signs for regression estimates,

The problem is addressed by dropping variables that are correlated by performing step-wise regression or increasing sample size or retaining the variables if they are not highly correlated. The model is then estimated after the highly correlated variables have been dropping. By dropping any of the variable not significant standard errors of all the other variables will decrease indicating that multicollinearity was a problem.

3.5   SCOPE OF THE STUDY

This study was confined to MSE sector activities in Ngong Division of Kajiado District. Due to limitation of resources the locality is considered to be adequate for the purpose of this study. In addition, the activities in the Division are considered to be a typical of all other MSE activities in the country. The Division was chosen because though rural its proximity to Nairobi city has provided a lot of urban influence being just about 15 kilometers from the city centre. According to (McCormick al et., 2000), the urban enterprises are not only more profitable than their rural counterparts but also begin with more capital (four times more). Ngong Division being a peri-urban area one can get varieties of businesses within the region. In addition, the lower part of Ngong Division has characteristics of a typical rural setting portraying a mixture of rural and urban enterprises. Given that most activities within the main market centres are small scale there was no problem in getting the required sample size. In addition, the area is familiar and easily accessible to the researcher.

Ngong Division is one of seven administrative Divisions of Kajiado District. The Division is divided into 9 locations namely; Ngong, Nkaimoronya, Kiserian, Ongata Rongai,

Oloolua, South Keekonyokie, North Keekonyokie, Central Keekonyokie and Mosiro location. Ngong Division boarders Narok to the west, Magandi division to the south, Nakuru district to the north, Kiambu district to the north-east, Nairobi to the East and Kajiado Central division to the south-east. The Division has the highest population density in the district, which is approximately 50 persons per km^2 and expected to grow to 66 persons per km^2 in 2008. The number of poor people in the Division is estimated to be 17,055 out of the total population of 149,771 (GOK, 1994).

The main economic activity of Kajiado district and Ngong Division in this regard, is livestock rearing which is mostly concentrated in the low land areas characterized by low rainfall. However, one of the other major economic activities of the Division is quarrying of building stones mainly at Ongata Rongai and around Ngong town. It has been noticed that in the recent past, the lifestyle has undergone changes due to on-going land adjudication and sub-division of group ranches leading to individual land tenure system in the region. This coupled with persistent draught have left the community miserable without much choice of economic activity. The region being semi-arid it is difficult to carry out major farming activities. In this regard, identifying an alternative source of income like starting MSE activities could act as a way to boost the economic life of the people of Ngong Division.

The study was concentrated in the three major town centres of Ngong Division which includes; Ongata Rongai, Ngong and Kiseriani and the rural surrounding which covered the 6 locations in the Division namely; Ngong, Nkaimoronya, Kiserian, Ongata Rongai, Oloolua and South Keekonyokie (See Figure 1). Apart from the major towns most of the businesses in the rural surrounding are concentrated along the major roads Magadi road, Ngong-Kiserian road, Pipeline road and the major settlements areas.

3.6 DATA SOURCE AND TYPE

The data for this study was collected through administering a questionnaire to individual small-scale enterprise owners/operators in Ngong Division of Kajiado District (Attached as Appendix 1). The questionnaire was designed in a way that it ensured that captured qualitative information can be coded and entered using SPSS. The questionnaire gathered information on the following aspects of the entrepreneurs and the enterprises.

(i)   Personal data relating to ownership, age, sex, marital status and general education.

(ii)   Business information, which includes Location of business, type of business, age of the business, formality

(iii)   Business operations

(iv)   Job training

(v)   Availability of inputs

(vi)   Labour and capital

(viii)   Membership to organization

(ix)   Access to information, advisory services and credit

(x)   Other economic activities

(xi)   Data related to general information on opinion and kind of assistance required

All information was collected via a face-to-face interview from the selected respondents since it was cross-section data.

3.7   SAMPLING PROCEDURE

Considering the large population and resource constraints, it was impossible to capture all the MSEs in Ngong Division. A random selection procedure was used to select the 150 small-scale enterprises owners/operators who are carrying out activities from business premises excluding hawkers and street vendors. The businesses included comprised of trade, manufacturing and service activities. The selection procedure ensured that the sample taken generated representative results.

CHAPTER 4: ANALYSIS OF RESULTS AND DISCUSSION

4.1 INTRODUCTION

The Chapter is divided into two sections. The first section presents descriptive analysis of the sample data obtained from the field while the second section presents the results of the regression analysis.

4.2 DESCRIPTIVE STATISTICS

Table 4: Descriptive Statistics of the Variables

	N	Minimum	Maximum	Mean	Std. Deviation
Age of entrepreneur in years	150	18.00	65.00	33.8267	9.57468
Age of Business	150	.50	30.00	4.0493	4.28467
Monthly sales	150	2400.00	1400000.00	102419.7333	202875.99517
Monthly costs	150	1000.00	714200.00	55760.2000	105294.43290
Monthly profit	150	-660.00	915000.00	47728.2000	126996.46695
Initial capital	150	70.00	2500000.00	120747.1333	309123.21183
approximately capital stock	150	700.00	5000000.00	224183.3333	561919.96903
Number of paid employees	94	.00	9.00	1.7340	1.46776
Valid N (listwise)	94				

Source: Authors computation

Table 4 above indicates that out of the 150 enterprises the age of the business ranges from 6 months to 30 years with a mean of 4 years meaning that most of businesses are relatively young. The monthly sales range between Kshs. 2,400 and Kshs. 1,400,000 with a mean sales of Kshs. 102,419.70 per month. Cost range between Kshs. 1,000 and Kshs. 714, 200.00 per month with mean Kshs. 55, 760.2 per month. An important observation from this statistic is that while some firms recorded negative profit others have huge monthly profit margins of up to Kshs 915,000. The mean initial level of capital was Kshs. 117,547 though the minimum was as little as Kshs 70 and maximum is Kshs 2,500,000. At least 67% of the business had started with capital level of less than Kshs. 50,000. A comparison of mean level of initial capital and present capital for most of the businesses shows that they have accumulated more capital since their start. The study shows that businesses have grown from initial capital stock as exemplified by growth level of up to four times.

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On employment levels the results indicate that only 94 enterprises have paid workers with the highest number of employees being 9 with a mean of 1.7 employees. This indicates that for most enterprises employment involve only owners and household members. This confirms results of the 1999 MSE Baseline Survey, which indicates that average Kenyan MSE employs 1-2 workers.

Out of the 150 respondents the youngest was 18 years while the oldest was 65 years with a mean age of 33.8 meaning that most of the entrepreneurs are in their 30s. This can be explained by the current levels of unemployment in the formal sector where most youth opt to start their small scale businesses. Another observation is that the formal sector retiring group 56 years do not seem to have made a major impact on the MSE sector.

Table 5 below reveals that 76 of the respondents were male while 74 were female. This is an indication that there are almost as many men as women participating in this sector.

Table 5 : Age of Entrepreneurs by Sex

Age	Female	Male	Total	Percentage
18-20	2	1	3	2%
21-30	32	33	65	43.4%
31-40	30	27	57	38%
41-50	7	9	16	10.6%
51-65	3	6	9	6%
Total	74 (49%)	76 (51%)	150	

Source: Authors computation

Table 6: Sex of Entrepreneurs and Type of Business

Sex of Entrepreneurs	Type of Business			Total
	Trade	Manufacturing	Service	
Female	38	9	27	74
Male	40	20	16	76
Total	78	29	43	150

Source: Authors computation

Table 6 reveals that trade is the major activity with 78 enterprises while service and manufacturing have 43 and 29 enterprises respectively. The study further reveal that trade and manufacturing are male dominated while service activity is dominated by female entrepreneurs. Lack of prerequisite skills and interest by female entrepreneurs can explain male dominance in manufacturing activities.

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Table 7: Monthly Profit and Type of Business

Monthly Profits	Type of Business			Total
	Trade	Manufacturing	Service	
-660-10,000	26	14	27	67
10,0001-20,000	10	5	8	23
20,001-30,000	8	2	5	15
30,001-40,000	7	2	0	9
40,001-50,001	6	2	2	10
50,001-915,000	21	4	1	26
Total	78	29	43	150

Table 7 reveals that Trade activities are more profitable than other businesses. The study confirms the results of the 1999 MSE Baseline Survey that trade activities do better in Kenya. This could be explained by the relative low cost incurred in trade activities as compared to other activities in the same sector. The traders are mainly middlemen who scope higher profit margins than the producers.

Table 8: Monthly Profit and Sex of Entrepreneurs

Monthly Profit	Sex of Entrepreneurs		Total
	Male	Female	
-660- 10,000	27	40	67
10,001-20,000	16	17	23
20,001-30,000	4	11	15
30,001-40,000	4	5	9
40,001-50,000	7	3	10
50,001-915,000	18	8	26
Total	76	74	150

Source: Authors computation

Table 8 above reveals that businesses owned by male have a higher profit margin than those owned by the female counterparts. The result reveals that 54% of the businesses owned by female had a profit margin of up to KShs. 10,000 while only a small proportion of 10% of the businesses earned a profit of at least KShs. 50,000 per month. The study confirms results from the 1999 MSE Baseline Survey which indicates that most MSEs generate around KShs.6,008 per month which lies in the category -660 - 10,000 where majority of enterprises falls.

Table 9: Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Some primary	14	9.3	9.3	9.3
	Completed primary	23	15.3	15.3	24.7
	Some secondary	15	10.0	10.0	34.7
	Completed secondary	56	37.3	37.3	72.0
	Completed form six	7	4.7	4.7	76.7
	Completed college	27	18.0	18.0	94.7
	University	8	5.3	5.3	100.0
	Total	150	100.0	100.0	

Source: Authors computation

Table 9 above shows that 35 (23.3%) of the respondents attained post secondary level of education while 78 (52%) and 37 (24.7%) attained secondary and primary level of education respectively. This shows that MSE entrepreneurs today are more literate and educated than MSE entrepreneurs of the 90's. This could be attributed to the rising levels of unemployment among secondary school and college leavers who eventually end up in the sector as an action of last resort.

Out of the 150 respondents 67 (44.6%) acquired business skills through apprenticeship (32), specialized training institutions (27), village polytechnic (5). The rest did not have any form of training. This reveals very low levels of training among the entrepreneurs. This result confirms previous studies that training in the MSE sector is carried out largely through the apprenticeship system, particularly in manufacturing and services. Of the 150 respondents only 33 (22%) have received advisory services on how to improve their businesses this explains the reported need of assistance in business management.

On membership to association 49 (32.7%) entrepreneurs ascribe to a membership association. Looking at the results most entrepreneurs are not members to any support group. However, the study revealed that the most popular associations are merry-go-round where majority are women participating which can be seen as a way of soliciting financial and non-financial assistance.

Most studies use age of the business to denote work experience (Page,1979; McCormick, 1988), however this study determines the experience of entrepreneur by

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number of years engaged on related activities. Age and experience are treated differently since some businesses were only a few years old while the entrepreneur had done same work for many years meaning they had more years of experience than age of their business. Out of the 150 respondents 95 (63.3%) claimed that they had previous experience.

Of the 150 businesses 110 were found to be formal (licensed by local authority) with majority of them being in the major town centres Ngong, Kiserian and Rongai. Out of the remaining 40 enterprises which are informal 6 operate from the major town centres while the rest are operating from the rural areas. This reveals that most of enterprises in the rural locality can afford to remain informal since they can easily operate without council licenses. The informality can also be explained by the fact that start up capital is low the fact that rural enterprises have a low profit margin.

Availability of inputs/stock was reflected by whether the inputs/stock are hard to get and whether they are satisfied with the inputs/stock. The information revealed that most of the entrepreneurs had no problem in acquiring their inputs/stock.

The results revealed that access to credit is critical but the major issue related to this was lack of access to cheap credit. This makes most businesses to opt to do without credit. Out of the 46 (30.7%) enterprises that were able to access credit; 45% got credit from Micro Finance Institutions (MFIs), 32% from groups, 10.9% from Banks, 6.5% from suppliers while only 4.3% got credit from SACCOs. This result confirms previous studies that majority of Kenya's MSEs operate without any form of credit.

The study revealed that most businesses had positive attitude towards their businesses with 73.3% of the respondents noting that their businesses were successful. Majority attributed the success of their businesses to additional capital and labour.

Table 10: Most Severe Constraints Faced by MSEs

Constraint	Frequency
Marketing and competition	64
Insufficient capital	57
Lack of credit	24
Poor infrastructure	20
Insecurity	11
Lack of required skills	8

Source: Authors computation

Table 10 highlights the major constraints faced by entrepreneurs in the Division with marketing and competition together with lack of sufficient capital and credit being the major constraints.

4.3 RESULTS OF THE REGRESSION ANALYSIS

The section present the results of the model specified in Chapter three. Using OLS estimation procedure the equation specified in the methodology was estimated to obtain the effects of the variables.

$LnPROF = \beta_0 + \beta_1 EDU + \beta_2 JTR + \beta_3 LnAGEe + \beta_4 LnAGEb + \beta_5 SEX + \beta_6 ACTI + \beta_7 OWN + \beta_8 LOC + \beta_9 LnICAP + \beta_{10} FSTA + \beta_{11} LnREX + \beta_{12} ADS + \beta_{13} AIF + \beta_{14} ACR + \beta_{15} TRA_i + \beta_{16} MANUA + \beta_{17} SERV\, \beta_{18}\, MEMB + U$

The variable availability of raw materials was dropped as majority of the entrepreneurs indicated that access to raw materials was not a problem so long as one has the required resources. The first regression of the equation gave the following results;

$LnPROF_i = 6.708 + 0.811 SEX_i + 0.077 EDU_i + 1.142 LOC_i - 0.586 JTR_i - 0.557 LnAGEe_i$

$\qquad\qquad (2.442)\quad (2.920)\quad (0.907)\quad (3.688)\quad (-1.783)\quad (-0.744)$

$+0.495 LnAGEb_i + 0.718 TRDA_i + 0.354 MANUA_i - 0.557 OWN_i + 0.165 LnICAP_i + 0.252 FSTA_i$

$(2.835)\qquad\quad (2.275)\qquad (0.814)\qquad (-2.314)\qquad (1.817)\qquad\quad (0.686)$

$+0.158 REX_i + 0.253 ADS_i + 0.507 AIF_i - 0.018 ACR_i + 0.374 MEMB + U$

$(0.128)\qquad (0.851)\qquad (1.843)\quad (0.054)\qquad (0.170)$

t-statistics are in parenthesis

$R^2 = 0.576$

Adjusted R square= 0.477

F-statistic = 5.822

Detailed results are provided in Table 11 below

Table 11: Estimated Coefficients of original model

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.708	2.747		2.442	.017
	Sex of Entrepreneurs	.811	.278	.265	2.920***	.005
	Education level	.077	.085	.082	.907	.368
	Location of business	1.142	.310	.375	3.688***	.000
	Ownership of business	-.557	.241	-.199	-2.314**	.023
	Formality status	.252	.368	.071	.686	.495
	Job training	-.586	.329	-.186	-1.783*	.079
	Have you done other kind of work	.158	1.235	.011	.128	.898
	received advisory services	.253	.297	.072	.851	.398
	Have received any information	.507	.275	.165	1.843*	.069
	Able to acquire credit	-.018	.323	-.005	-.054	.957
	log of the age of the business	.495	.175	.264	2.835***	.006
	log of initial capital	.165	.091	.207	1.817*	.073
	log of age of entrepreneur	-.557	.749	-.098	-.744	.459
	manufacturing	.354	.435	.084	.814	.418
	log of number of years worked	.173	.185	.116	.938	.351
	subscribe to any membership organization	.374	.320	.118	1.170	.246
	trade activity	.718	.316	.234	2.275**	.026

a Dependent Variable: log of monthly profits   *** significant at 1%, ** Significant at 5%, * Significant at 10%

With the exception of job training, ability to acquire credit and age of the entrepreneur all the other variables yielded the expected signs. Age of the entrepreneur and ability to acquire credit are found to be insignificant and negatively related to profitability. However job training is found to be significant and negatively related to profitability. Only eight variables are found to be significant. Further, analysis of the results revealed that there was the problem of multicollinearity among some of the variables. Multicollinearity makes it impossible to interpret the coefficients of the affected variables. In this study, correlation coefficient of ± 0.500 was taken to indicate serious multicollinearity problem. Looking at the correlation matrix, it was found that age of the entrepreneur is highly correlated to number of years worked while trade activity is highly correlated with service activity. The computer due to problem of multicollinearity automatically removed the service activity variable. In this case the variable number of

years worked and service activity was dropped from the model. Hence using the OLS estimation technique the model was estimated without the two variables. This estimated model formed the core of this analysis. The model estimated is as specified below.

$$LnPROF_i = \beta_0 + \beta_1\ EDU_i + \beta_2JTR_i + \beta_3LnAGEe_i + \beta_4LnAGEb_i + \beta_5SEX_i + \beta_7OWN_i + \beta_8LOC_i + \beta_9LnICAP_i + \beta_{10}$$
$$FSTA_i + \beta_{11}\ LnREX_i + \beta_{12}\ ADS_i + \beta_{13}AIF_i + \beta_{14}ACR_i + \beta_{15}TRA_i + \beta_{16}MANUA_i + \beta_{17}MEMB_i + U$$

Where, i runs from 1 to 150

The symbols used in this equation are as defined in the methodology. The results are presented below.

$LnPROF_i$ = 5.766+ 0.616SEX_i + 0.044EDU_i+ 0.649LOC_i- 0.461JTR_i-0.071$LnAGEe_i$

   (3.702)   (3.013)   (0.640)   (2.846)   (-1.852)   (-0.160)

+0.291$LnAGEb_i$+ 0.952$TRDA_i$ + 0.561$MANUA_i$ -0.346OWN_i+0.236$LnICAP_i$+ 0.254$FSTA_i$

(2.106)   (3.727)   (1.828)   (-1.761)   (3.221)   (0.927)

-0.442REX_i + 0.361ADS_i+ 0.372AIF_i+ 0.167ACR_i +0.180MEMB+U

(-1.954)   (1.474)   (1.825)   (0.669)   (0.730)

t-statistics are in parenthesis

R^2 = 0.500

Adjusted R Square = 0.435

F-statistic = 7.848

With the dropping of the two variables the number of coefficient that are significant increased from 8 to 10. Also comparing the F-statistic we see that it has improved from 5.822 to 7.678. In addition, with the dropping of the two variables the standard errors of the other variables decreased indicating that multicollinerity was a problem. This implies that this is a better model than the previous one. In addition, the coefficient ability to acquire credit has attained the expected sign with exception of job training and experience, which have retained negative signs. However, experience though portraying a negative sign is found to be significant in the second model. The detailed computer results of the above equation are as indicated below.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.707(a)	.500	.435	1.10888

The variables identified in the second model explain 43.5% of the variation in profitability. This is reflected by the value of the adjusted R^2 shown above. This leaves another 56.5% of the variation explained by the factors not included in the model, which is the error term. From the analysis and response from the field there is an indication that some of the factors not captured in the model but affect performance of the MSEs could be those outlined in Table 10 above which include; marketing, competition, poor infrastructure, insufficient capital and insecurity.

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
2	Regression	151.056	16	9.441	7.678	.000
	Residual	151.243	123	1.230		
	Total	302.299	139			

Table 12: Estimated Coefficients of the revised model

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	5.712	1.543		3.702	.000
	Sex of Entrepreneurs	.616	.205	.210	3.013***	.003
	Education level	.044	.068	.049	.640	.523
	Location of business	.649	.228	.221	2.846***	.005
	Ownership of business	-.346	.197	-.122	-1.761*	.081
	Formality status	.254	.274	.077	.927	.356
	Job training	-.461	.249	-.156	-1.852*	.066
	Have you done other kind of work	-.442	.226	-.144	-1.954**	.053
	received advisory services	.361	.245	.103	1.474	.143
	Have received any information	.372	.204	.127	1.825*	.070
	Able to acquire credit	.167	.250	.052	.669	.505
	log of the age of the business	.291	.138	.164	2.106**	.037
	log of initial capital	.236	.073	.306	3.221***	.002
	log of age of entrepreneur	-.071	.444	-.013	-.160	.873
	manufacturing	.561	.307	.151	1.828*	.070
	subscribe to any membership organization	.180	.246	.057	.730	.467
	trade activity	.952	.255	.324	3.727***	.000

a Dependent Variable: log of monthly profits

*** Significant at 1%   ** Significant at 5%   * Significant at 10%

The results show that sex of entrepreneur, location of business, access to information, age of the business, initial capital, ownership of business and business activity have the expected signs and are significant. However, job training and experience though significant do not have the expected sign they are both negatively related to profitability. Education level of the entrepreneur, access to credit, formality status and membership in support g roup though insignificant are positively r elated to profitability and they all yielded the expected sign.

Specifically, the estimation results confirm that sex of the entrepreneur is positively related to performance of the enterprise and is statistically significant. Female owned enterprises are significantly less profitable than those owned by male. This is shown by the positive and significant coefficient of the sex variable. The descriptive statistics reveals that most of the women businesses have a lower profit margin as compared to their male counterparts. The type of activity women are involved in as compared to male counterparts could e xplain t his phenomenon. A nother explanation c ould b e t he fact that males are involved in more risky and hard to start businesses and hence are better entrepreneurs.

Results also confirm existence of a positive relationship between the age of an enterprise and its profitability. In other words, enterprises profitability generally improves with age of the business. MSEs have to live long to develop their full performance potential by developing the necessary experience for increased enterprise performance and adjust to optimal size. The older an enterprise is, the more likely that its management would have developed successful operational styles that are perfected in the course of time.

Access to information is positively related to profitability and it is also significant. Entrepreneurs who have access to information are expected to be more successful than those who do not. The underlying assumption is that availability of information enhances the managerial ability and resource accessibility of the entrepreneur hence enhancing the profitability of the enterprise. Without access to timely, simplified, reliable and relevant information, MSEs are unable to survive and grow in the fast-changing, globalizing and highly competitive market environment.

Initial capital coefficient was found to be positively related to profitability and significant. Similar results were found by (Mugo, 1991). However, Chuta and Liedholm, 1995; Child, 1973) found the coefficient not statistically significant though positively related to profitability. Enterprises with large amount of initial capital are expected to earn higher profits since they are able to start on a larger scale and better exploit the market opportunities.

The results underscore the positive relationship between the firm locality and profitability. The results show that town-based enterprises are significantly more profitable than the rural-based enterprises. Town location implies access to larger markets and proximity to business services in general. This is consistent with results by (Kimuyu 2002).

According to the results trade and manufacturing sector activities are found to be positively related to profitability and significant though trade activities are more positively related to profitability and significant than manufacturing activities. This could be explained by the fact that trade activities do not involve additional cost of transforming the raw materials hence they are more profitable than manufacturing activities. In addition, as indicated in the descriptive analysis trade activities were found to be more frequent than manufacturing and service. This is line with the finding of the 1999 National MSE Baseline Survey, which found that income from MSEs is greater in trade than in manufacturing sector. Trade is known to involve a quick turn around from purchase of goods to sales revenue.

Experience affects the performance of the enterprise negatively but it is also significant. Similar results were observed by (Mugo, 1991) in her study of MSEs manufacturing firms in Mathira Division. However, the findings are contrary to other previous studies, which found experience to have a positive and significant effect on profits (Harris 1969, McCormick 1988, Page 1979, Chuta and Leidholm 1985). A possible explanation is that some entrepreneurs who could be experienced from operating other businesses elsewhere had relatively younger businesses in the area of study. In this regard some businesses owned by experienced entrepreneurs may not have established a firm base and could be making very low profits and may not have recouped the initial investment.

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The structure of ownership also affects the performance of the enterprise. The coefficient is negatively related to profitability as expected and significant. The result confirms that sole proprietorships are significantly less profitable in comparison with enterprises under family ownership. Sole proprietorship implies owner-management situations that promote concentration of control at the expense of the opportunity to pool managerial/entrepreneurial capability that is important for performance.

The study reveals that job training is a significant explanatory variable, but with a negative coefficient indicating that training on the job is not a prerequisite for successful enterprise performance. This could be explained by the small number of trained entrepreneurs (67) majority of whom (32) learnt through apprenticeship. This phenomenon can also be explained by the fact that supply of training has been based on what the trainers think is required rather than the established needs of the entrepreneurs meaning that the skills learnt are not put into productive use.

Ability to acquire credit is positively related to profitability though not significant. Credit provides MSEs with capacity to exploit opportunities that can facilitate their growth. The study reveals that although lack of access to credit is one of the major problems hindering business growth the entrepreneurs prefer to use other ways to raise money rather than acquiring credit from formal lending financial institutions. Most entrepreneurs have fear of soliciting credit due to the high cost of credit and collateral requirements. It was therefore not a surprise that most of the entrepreneurs appealed to government to avail cheap and affordable credit.

Education level of the entrepreneur is positively related to profitability but not significant. There is an indication that profitability increases with education attainment. The results are contrary to some that found out education to be positively related to profitability and significant (Kimuyu 2002; Harris 1969; Matsebula 1986; Chuta and Liedholm 1985). However, some studies have found that people with poor education and little or no formal training succeed in establishing profitable business (Aderson, 1992; Child 1973). These latter studies argue that experience is the most important factor and that formal education requirement has not imposed serious barrier to business growth. This means that though education is found to be important in learning a business it is not a perquisite for successful entrepreneur. The results could be explained by the fact that most of the educated entrepreneurs have high expectations and failure to succeed they

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are easily demoralized and easily loss focus. It is also possible for business owners to be overqualified in a way, which generates a level of frustrations that is inimical to growth.

Age of the entrepreneur has a negative effect on profitability. This is contrary to previous studies, which found age of entrepreneur to have a positive and significant effect on performance (Kimuyu 2002; Kimuyu and Omiti 2000). This can be explained by the possibility that the older entrepreneurs have other engagements and social responsibilities such that they do not devote all their energies on the businesses. The entrepreneurs may be more experienced but their business performs poorly due to inadequate involvement and reinvestment of their business profit therein.

Formality status is confirmed as having positive effect on profitability though not significant. This is inline with other studies whose results found positive relationship between formality and success of the business (McCormick, 1988; Mwangi, 2001; Kimuyu, 2002). Informal enterprises face major penalties such as constant official harassment and reduced access to services. As indicated above most of the informal enterprises are found in the rural locality.

Membership to business support group and access to advisory services have positive effects on enterprise profitability though not significant. Such memberships are seen to open doors for tapping network externalities such as access to credit, management skills and marketing channels.

The cross-section analysis results indicate that the equation had provided a reasonably good estimate of the underlying characteristics that affect the economic returns to the entrepreneur. In this regard, the results indicate that apart from the mostly studied constraints regarded as affecting enterprise performance, the enterprise and entrepreneur attribute equally affects the enterprise performance.

CHAPTER 5: SUMMARY AND POLICY IMPLICATION

5.1   SUMMARY AND CONCLUSION

This paper has examined the factors that determine performance of the MSEs sector activities. Specifically the paper set out to explore the interplay between institutional factors and profitability of Micro and Small Enterprises from a representative sample of MSEs in Ngong Division. Applying descriptive statistics and regression analysis on the sample d ata, the results d emonstrated s pecific impacts o f d ifferent e ntrepreneur a nd enterprise attributes on profitability of the MSEs.

The descriptive statistics revealed that most of the entrepreneurs, about 83.3% were aged between 18 and 40 years. This results tally with other previous studies done in Kenya. On the age of the enterprise 72% of the enterprises were between the age of 6 months- 4 years, which reveals that most enterprises are relatively young meaning that survival, rate of these enterprises is quite low. Majority of the trained entrepreneurs 48% were trained as apprentices this reveals very low levels of training in recognized training institutions. Another major finding is that those who have employed paid labourer were employing between 1 and 2 workers with majority of the enterprises being operated by owners and family members.

According to the regression results, most of the findings from this analysis confirm what other researchers found to be true that sex of entrepreneur, location of business, age of the business, initial capital, ownership of the business, job training, experience, business activity exert systematic influences on profitability. In addition, the new variable namely; access to credit, access to advisory services, information and membership to support organization which were not covered in other research reviewed are found to be positively related to profitability with access to information being highly significant.

5.2   POLICY IMPLICATIONS

The policy measures outlined below are aimed at ensuring that the performance of the Micro and Small Enterprises is improved.

The result confirms that MSEs have limited access to credit especially from formal institutions and this may be a hindrance to their expansion and profitability. Related to lack of sufficient credit is lack of sufficient capital, which is the second most serious problem hindering growth and profitability of businesses in the Division. It is recognized that access to credit provides MSEs with capacity to exploit opportunities that can facilitate their growth and improvements of their capital stock. In this regard the Government needs to put in place measures to promote access to credit by MSEs. Loans to MSEs should be offered at softer terms without stringent conditions. As another measure the Government needs to introduce micro leasing to expand access of MSEs to credit in ways that overcome traditional collateral requirements and contribute to capital formation.

The government in collaboration with the private sector should invest in training institutions with a view of enhancing skills in business management practices, apprenticeship, entrepreneur role models, demonstration and extension services. Training on product design, packaging, product diversification, quality assurance, marketing, exhibitions and export promotion activities, sourcing of goods and services also enhances competitiveness of MSEs products to improve marketing. Other measures include diversifying technological innovation and Research and Development (R & D) to cater for needs of the MSEs. The Government should also allocate adequate percentage of its procurement requirement through sourcing goods and services from the sector.

To improve access to information there is need to put in place mechanisms which include; information dissemination through mass media, exposure tours, exhibitions, training for functional literacy, providing practical/technical education, maintaining continuous interaction with the sector, holding educational and sensitization workshops, simplifying information by breaking it into components, providing knowledge and skills to the sector formally through technical education and informally through workshops, publishing newspapers in local languages, supporting verbal communication follow-up and offering field trips to help the sector gain exposure.

Since female-owned enterprises show poor performance relative to those owned by male, it is necessary to pay attention to traditional practices and attitudes that discriminate against women. These may include enhanced girl child education, review

of land and property rights and encouraging the mainstreaming of women-owned businesses. Other policies entails encouraging women to venture into businesses activities which are more profitable, increase their access to credit by encouraging them to form SACCOs, promotion of networking with formal banks and Micro Finance Institutions (MFIs) and building institutional capacity of support organizations for gender mainstreaming.

This study confirms the positive impact of networking externalities in influencing MSEs performance. It is therefore imperative that MSEs are encouraged and facilitated to establish MSEs associations and cooperatives to mobilize own resources (finances and capital), enhance marketing of their products and facilitate dialogue.

Since formality is important for enterprise performance, strategies for mainstreaming informal enterprises would shield such enterprises against penalties associated with informality and give them an opportunity to realize their full potential. The Government through the local authority should therefore set aside sites for MSEs operators. The sites should be equipped with the necessary infrastructure such as sheds, power, water and sewerage and access roads. From the study it has been noted that while easy access to utilities is important in all business activities, it is particularly critical in manufacturing and service sector where access to utilities may determine the type of technical processes to be used.

An enabling legal and regulatory environment is imperative if the MSE sector is to create the desired impact. This calls for review, updating of the existing pieces of legislation and enactment of laws, which are dynamic, responsive to the needs of the MSEs and supportive to the growth, and development of the sector. The government in collaboration with the residence of the area should put in place measures to improve security in the area.

In addition, the positive impact of the age of an enterprise on profitability suggests that strategies for promoting enterprise longevity will be crucial for the development of the business sector.

5.3 CONTRIBUTION OF THE STUDY AND SUGGESTIONS FOR FURTHER RESEARCH

The study on Kenyan MSEs and determinants of their performance has several contributions to make. Firstly, it has established and confirmed previous findings on factors that affect performance of the enterprises including those that were not analyzed econometrically in the reviewed literature. Secondly, the study targets the three major sector activities; service, trade and manufacturing unlike other econometric studies reviewed that only targets one sector activity. Thirdly, the findings of this study are of help to policy makers in formulating policies that if implemented, would enhance the performance of the MSEs at both national and micro level since the identified factors affecting MSEs are common across the board. Such policies will enable the sector address the major economic challenges facing the country such as employment creation, income generation, poverty reduction and eventual economic growth.

This study examined 16 variables that affect enterprise performance using log-linear model augmented by dummy variables. This is confirmed by the significant constant. The model explains 43.5% of the variation leaving the other 56.5% unexplained. Hence, there is need for further research that includes other variables such as the effects of marketing, infrastructure, legal and regulatory environment, firm size and social factors on MSE performance.

5.4 LIMITATIONS OF THE STUDY

The major limitation is asserting the accuracy of the information provided due to poor record keeping by the entrepreneurs. This made it difficult to track the performance of the enterprise. In this regard the results of this study need to be interpreted with caution. As such computation based on this data may have some errors, but efforts have been made to minimize them by comparing and cross-checking responses from different entrepreneurs.

This study used cross-section data, which gives information at a given point in time. Theoretically, panel data model is more appropriate for the estimation of econometric relationships.

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Figure 1: NGONG DIVISION: Administrative units

Legend

- ▪▪▪ Division boundary
- Location boundary
- Sub location boundary
- Tarmac road
- • Trading centres
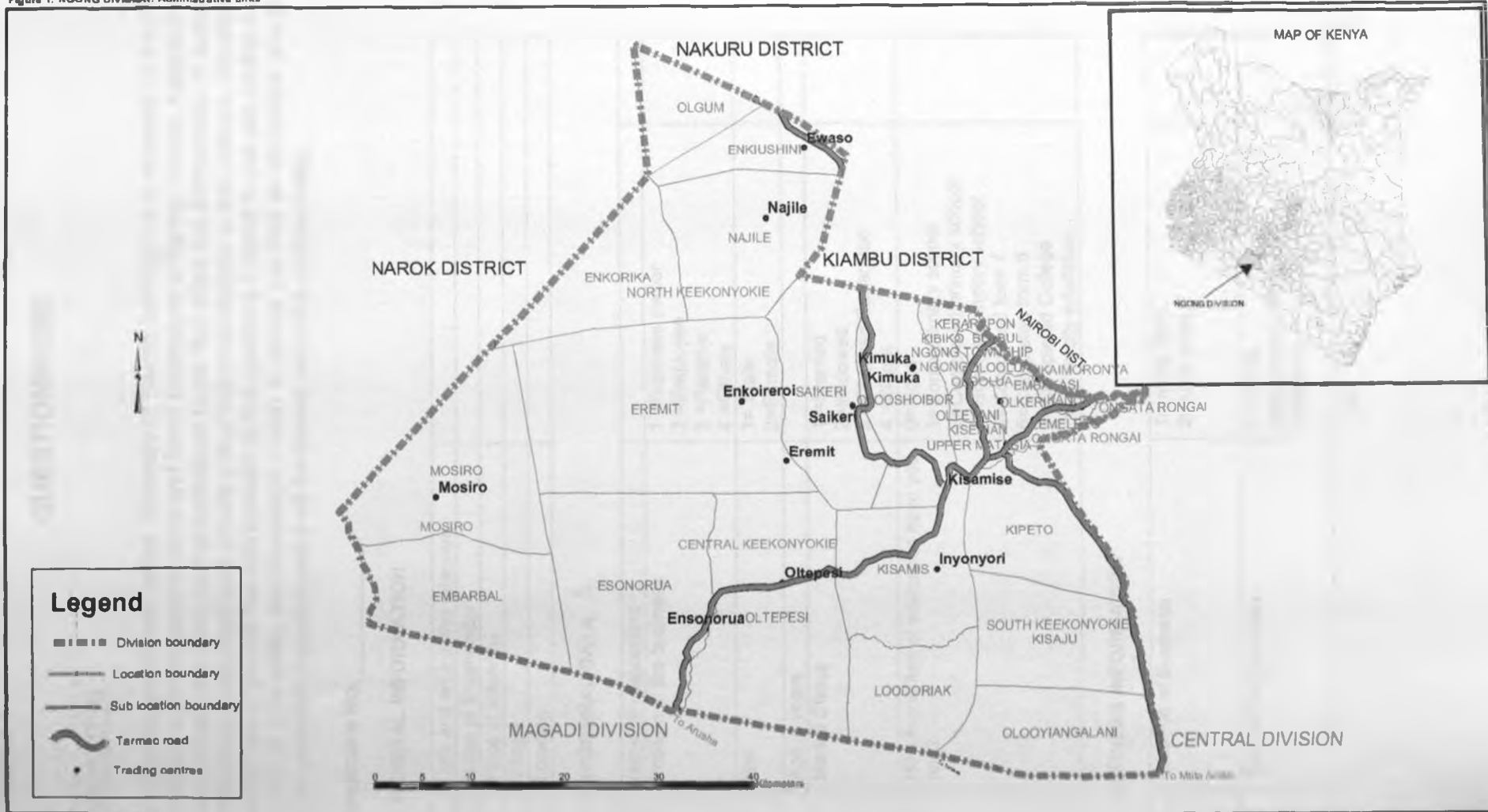
APPENDICES

APPENDIX 1

QUESTIONNAIRE

INTRODUCTION

Iam a postgraduate Student at the University of Nairobi carrying out a research on the factors determining the performance of Micro and Small Enterprises in Ngong Division, Kajiado District. My main concern is to find out the institutional factor that affect the performance or success of the Small Micro Enterprises and provide policy recommendations to this concern. Iam therefore requesting you to provide me with answers to the questions I intend to ask you on this subject to the best of your ability and knowledge. I wish to assure you that all information you give is purely for academic purposes and it will be treated with strict confidentiality.

Questionnaire No. _____

A. GENERAL INFORMATION

A1	Date and time of the interview	
A2	Name of Enumerator	
A3	Place of interview	
A4	Village	
A5	Location	

B. PERSONNAL DATA

B1	Name of respondent		
B2	Position in the business	1 =Business owner 2 =Employee 3 =Relative 4 =Others	
B3	Sex	1= Male 2=Female	
B4	Age in years		
B5	Marital Status	1 =Married 2=Widowed 3 =Divorced/Separated 4 =Single	
B6	How much formal education have you had?	0=None 1=Some primary school 2=Completed primary school 3=Some secondary school 4=Completed form 4 5=Completed form 6 6=Completed College 7=University education	

C. BUSINESS INFORMATION

C1	Location of Business	1=Inside town 2=rural areas	
C2	Type of the Business	1 =Trade 2=Manufacturing 3=Service	

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C3	Age of business in years		
C4	Do you have	Postal Address 1= Yes 2= No Telephone Address 1= Yes 2= No	
C5	Ownership of Business	1= Sole proprietorship 2= Family	
C6	Formality Status	1 =Formal 2 =Non formal	
C7	Did you start this business yourself	1=Yes 2=No	

D. JOB TRAINING

D1	Have you ever had any job training to do with your business?	1=Yes 2= No	
D2	If yes where	1 =Village polytechnic 2 =Training institute 3 =Demonstration seminar 4 =Apprentices	
D3	For how long were you trained? In years		
D4	How was your proficiency tested?	1=Certificate test 2=Grade test	
D5	Have you done any other related work other than this business?	1=Yes 2= No	
D6	If Yes, please describe the work	1=Formal 2=Informal	
D7	For how long did you do this work? Years		
D8	Do you keep written records on your business 1=Yes 2=No		
D9	If Yes which records	1 =Sales 2= Costs 3 =Creditors 4 =Stock	

E.BUSINESS OPERATIONS

E1	How much did you sell last week? KShs.		
E2	How much do you normally sell per week? KShs.		
E3	How much do you normally sell per day?		
E4	How much do you normally sell per month? KShs.		
E5	How much did you spend on raw materials last week? KShs.		
E6	How much do you normally pay per week? KShs.		
E7	How much do you normally pay per Month?		
E8	Are there any other costs you incurred?	1=Yes 2=No	
E9	If yes which one	Cost type Amount in Kshs 1	

		2	
E10	Have experience any growth in you business in the last		
	-One year	1=Yes 2=No	
	-Two years	1=Yes 2=No	
	-Three years	1=Yes 2=No	
	-Four years	1=Yes 2=No	
	-Five years	1=Yes 2=No	
E11	If yes in which major area?	Area of Growth 1 =Sales volume 2 =Production Line 3= Profits 4 =Employment 5=Increase in stock 6=New business 7=Others	
E12	If yes, what has contributed to this growth? (major reasons)	1= Loans/Credit 2 =New Products 3= New Markets 4=New technology 5=Others	

F. AVAILABILITY OF INPUTS

F1	What major inputs do you use in your business?	1= Raw 2= Manufactured	
F2	Are they hard to get?	1=Yes 2= No	
F3	If yes why?	1 =Costly to acquire 2 =They are poor quality 3 =Due to delays 4= Lack of inputs when needed 5=Others	
F4	Are you satisfied with the inputs you use?	1=Yes 2=No	

G. LABOUR AND CAPITAL

G1	Apart from yourself do you have any other employees?	1=Yes 2= No	
G2	If Yes how many are	1 =Paid workers 2=Family workers 3=Apprentices	
G3	How much do you pay them per month? Kshs	1=1-5000 2=5001-10,000 3=10,001-15,000 4= 15,001 and above	
G4	Are there any problems you encounter in getting laborers?	1=Yes 2= No	
G5	If yes which problem?	1=Lack of laborers 2=Lack of money to pay wages 3=Others	
G6	What was the initial level of capital you stated the business with? Kshs		
G7	Approximately how much capital stock do you have at present? Kshs		
G8	According to you opinion, what level of capital could be considered adequate?		

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H. MEMBERSHIP TO ORGANIZATION

H1	Do you subscribe of belong to any membership organization?	1=Yes 2=No	
H2	If Yes which one?		
H3	Do you think the organization enhances growth of your enterprise?	1=Yes 2= No	
H4	If so how?		

J. ACCESS TO INFORMATION, ADVISORY SERVICES & CREDIT

J1	Have you received any advisory services	1=Yes 2=No	
J2	If Yes from where and which kind of services	Institution Kind of Service	
J3	Has this helped your business	1=Yes 2=No	
J4	Have you received any other information to assist you in your business	1=Yes 2=No	
J5	If Yes, what type of information		
J6	Where did you obtain the above information	1=print media 2=electronic media 3=word of mouth 4=others, specify	
J7	Have you been able to acquire any credit in the last -One year -Two years -Three years -Four years -Five years	 1=Yes 2=No 1=Yes 2=No 1=Yes 2=No 1=Yes 2=No 1=Yes 2=No	
J8	If Yes, from which organization		
J9	Has the credit acquired been sufficient	1=Yes 2=No	

K. OTHER ACTIVITIES

K1	Do you have any other source of income apart from sales in this business?	1=Yes 2= No	
K2	If Yes, state them	Activity Amount in Kshs 1.--------------- 2.---------------	
K3	Do you recycle profits from the other sources to the business and vise versa?	1=Yes 2=No	
K4	Apart from wages what other high administrative cost do you incur in a month?	1 = Water bill 2 =Electricity 3 =Rent 4=Stationary 5= Others	
K5	Do you pay any licensing to the local authority?	1=Yes 2=No	
K6	What is your assessment of amount paid?	1=Too low 2 =Sufficient 3=Too high	

L. GENERAL

L1	Assessing your business can you say whether it is successful or not?	1=Yes 2=No	
L2	If Yes give reasons		
L3	List three major problems which you feel hinder you from expanding your business	1. ------------------ 2.------------------ 3.------------------	
L4	In your opinion what should be done to improve the performance of small-scale enterprises like yours in this area?		

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APPENDIX 2

CROSS TABULATION AND FREQUENCY TABLES

Table1: Age of Entrepreneur and Type of Business

			Type of Business			Total
			Trade	Manufacturing	Service	
Age of entrepreneur	18-20	Count	3	0	0	3
		% of Total	2.0%	.0%	.0%	2.0%
	21-30	Count	33	8	24	65
		% of Total	22.0%	5.3%	16.0%	43.3%
	31-40	Count	30	11	16	57
		% of Total	20.0%	7.3%	10.7%	38.0%
	41-50	Count	7	9	0	16
		% of Total	4.7%	6.0%	.0%	10.7%
	51-65	Count	5	1	3	9
		% of Total	3.3%	.7%	2.0%	6.0%
Total		Count	78	29	43	150
		% of Total	52.0%	19.3%	28.7%	100.0%

Table2: Age of Entrepreneur and Sex of Entrepreneur

		Sex of Entrepreneurs		Total
		Female	Male	
Age of entrepreneur	18-20	2	1	3
	21-30	32	33	65
	31-40	30	27	57
	41-50	7	9	16
	51-65	3	6	9
Total		74	76	150

Table3: Formality Status and Location of Business

		Location of business		Total
		Rural	Town	
Formality status	Non formal	34	6	40
	Formal	40	70	110
Total		74	76	150

Table4: Formality Status and Sex of Entrepreneurs

		Sex of Entrepreneurs		Total
		Female	Male	
Formality status	non formal	21	19	40
	Formal	53	57	110
Total		74	76	150

Table5: Education Level and Type of Business

			Type of Business			Total
			Trade	Manufacturing	Service	
Education level	Some primary	Count	7	4	3	14
		% of Total	4.7%	2.7%	2.0%	9.3%
	Completed primary	Count	12	8	3	23
		% of Total	8.0%	5.3%	2.0%	15.3%
	Some secondary	Count	8	1	6	15
		% of Total	5.3%	.7%	4.0%	10.0%
	Completed secondary	Count	28	9	19	56
		% of Total	18.7%	6.0%	12.7%	37.3%
	Completed form six	Count	5	0	2	7
		% of Total	3.3%	.0%	1.3%	4.7%
	Completed college	Count	14	3	10	27
		% of Total	9.3%	2.0%	6.7%	18.0%
	University	Count	4	4	0	8
		% of Total	2.7%	2.7%	.0%	5.3%
Total		Count	78	29	43	150
		% of Total	52.0%	19.3%	28.7%	100.0%

Table 6: Education Level and Sex of Entrepreneurs

		Sex of Entrepreneurs		Total
		Female	Male	
Education level	Some primary	5	9	14
	Completed primary	11	12	23
	some secondary	10	5	15
	Completed secondary	26	30	56
	completed form six	3	4	7
	Completed college	18	9	27
	University	1	7	8
Total		74	76	150

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Table 7: Age of Business and Sex of Entrepreneurs

		Sex of Entrepreneurs		Total
		Female	Male	
Age of Business	.50	2	0	2
	1.00	22	13	35
	2.00	15	16	31
	3.00	8	19	27
	4.00	6	9	15
	5.00	8	7	15
	6.00	1	2	3
	8.00	3	1	4
	9.00	2	1	3
	10.00	1	2	3
	11.00	1	2	3
	12.00	1	1	2
	13.00	1	0	1
	14.00	1	0	1
	15.00	0	1	1
	18.00	0	2	2
	22.00	1	0	1
	30.00	1	0	1
Total		74	76	150

Table 8: Sex of Entrepreneurs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	74	49.3	49.3	49.3
	Male	76	50.7	50.7	100.0
	Total	150	100.0	100.0	

Table 9: Location of Business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rural	74	49.3	49.3	49.3
	Town	76	50.7	50.7	100.0
	Total	**150**	**100.0**	**100.0**	

Table10: Ownership of Business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Family	34	22.7	22.7	22.7
	Sole proprietorship	116	77.3	77.3	100.0
	Total	**150**	**100.0**	**100.0**	

Table 11: Type of Business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Trade	78	52.0	52.0	52.0
	Manufacturing	29	19.3	19.3	71.3
	Service	43	28.7	28.7	100.0
	Total	150	100.0	100.0	

Table12: Job Training

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	83	55.3	55.3	55.3
	Yes	67	44.7	44.7	100.0
	Total	150	100.0	100.0	

Table13: Where trained

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Village polytechnic	5	3.3	7.5	7.5
	Training institute	28	18.7	41.8	49.3
	Demonstration Seminar	2	1.3	3.0	52.2
	Apprentices	32	21.3	47.8	100.0
	Total	67	44.7	100.0	
Missing	System	83	55.3		
Total		150	100.0		

Table14: Other related kind of work (Experience)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	95	63.3	63.3	63.3
	No	55	36.7	36.7	100.0
	Total	150	100.0	100.0	

Table15: Accessibility of Advisory Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	33	22.0	22.0	22.0
	No	117	78.0	78.0	100.0
	Total	150	100.0	100.0	

Table16: Accessibility of information

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	79	52.7	52.7	52.7
	No	71	47.3	47.3	100.0
	Total	150	100.0	100.0	

Table17: Ability to Acquire Credit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	46	30.7	30.7	30.7
	No	104	69.3	69.3	100.0
	Total	150	100.0	100.0	

Table18: Assessment of Major Source of Credit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bank	5	3.3	10.9	10.9
	MFI	21	14.0	45.7	56.5
	Group	15	10.0	32.6	89.1
	SACCO	2	1.3	4.3	93.5
	Suppliers	3	2.0	6.5	100.0
	Total	46	30.7	100.0	
Missing	System	104	69.3		
Total		150	100.0		

Table 19: Assessing of business success

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	110	73.3	73.3	73.3
	No	40	26.7	26.7	100.0
	Total	150	100.0	100.0	

Table 20: Employment levels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	88	58.7	58.7	58.7
	No	62	41.3	41.3	100.0
	Total	150	100.0	100.0	

Table 21: Subscribe to any Membership organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	49	32.7	32.7	32.7
	No	101	67.3	67.3	100.0
	Total	150	100.0	100.0	