ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

CRITICAL ASSESSMENT OF THE SOCIO-ECONOMIC IMPACTS AND DETERMINANTS OF MICRO AND SMALL ENTERPRISES (A CASE STUDY ON WOLKITE TOWN)

BY

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A project submitted to school of Graduate Studies of Addis Ababa University in partial fulfilment of the requirements for the Degree of Masters of Arts in Economics

ADDIS ABABA
May, 2009

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Signature

Acknowledgements

First of all, all praise goes to Almighty ALLAH, the most merciful and the most gracious. Next, my appreciation extended to my advisor Dr. Syed Hassan for his valuable comments and suggestion.

My deepest gratitude also goes to my mother Munteha Mohammed and my brother Kedir Abdulsemed for their financial, moral and material support. Had it been with out their support, nothing may not be achieved.

Finally, my appreciation extended to all of my friends who are available at the different offices and universities.

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ACRONYMS

- MSE – Micro and small enterprises
- GDP – Gross domestic product
- HLCLEP – High level commission on legal empowerment of the poor
- CSA – Central statistical authority of Ethiopia
- MOTI – Ministry of trade and industry
- ILO – International labor organization
- NGO- Non governmental organization
- SNNPR – Southern nation and nationalities of peoples republic
- EU – European union
- USAID – United states agency for international development

Abstract

This study investigates the socio-economic impacts and determinants (constraints) of MSEs simultaneously using 100 samples of MSEs (80 of them sole proprietorship and 20 of them co-operatives) in Wolkite town (the case study area of this paper). The majority of firms in the surveyed town (Wolkite town) are MSE and large numbers of the residents made their livelihood through micro and small enterprise. The finding of the study shows MSEs have socio-economic impacts such as employment opportunity, income generation and some other livelihood benefits. However, there are some constraints or determinants that can affect for the growth of MSEs such as initial size and age of the firm, formality of the business, human capital(previous experience, education level and business training), demographic factors (gender, martial status and age of the owner), access to finance, the type of sector and location of the firm. Further more, the analysis of the study also shows that from these determinants age of the firm, business formality, previous experience, business training, demographic factor(male and married owner),informal financial access, the type of sector(trade and manufacturing) and location of the firm(traditional market location) have positive effect for the growth of MSEs. On the contrary, initial size of the firm, formal financial access, informality of the business, demographic factor(female and unmarried owner)and the type of sector(trade) have negative effect for the growth of MSEs. Since MSE differs based on sector and ownership type, their socio-economic impact and the constraint they do face also differs accordingly. Policies and support programme that promotes for the growth of MSEs therefore should consider these aspects of MSEs differences.

The paper comprised of five sections, the first section deals with an introduction, the second section reviews the theoretical literature, the third section discusses the descriptive analysis of the data, the fourth section sets the empirical framework and summaries the survey regression results and the fifth section covers the conclusion and some policy implication of the study.

Key words: micro and small enterprise, socio-economic impacts, income generation, employment opportunity, determinants or constraints.

SECTION 1: INTRODUCTION

1.1 Background of the study

The contribution of micro and small enterprise (MSE, here after) in generating employment and income has widely recognized around the glob. However, there are two opposite approaches /views with regard to the expansion or growth of MSE in generating employment and income. The first view asserts that the growth of MSE is encourageable. This view grounded on market is working and a lot of people have an opportunity to participate so that empower and nourish themselves including those which otherwise disadvantaged. The second view argues that the participation of a lot of people in MSE is a sign of market failure, where the market unable to absorb jobs in the formal sector (by assuming most MSE are informal) or productive sector. Due to this market failure peoples are forced to join MSE sector that provides them minimum and subsistence support. (C.Leidholm, 2001)

For the past three decades a large number of developing and international organizations realized the importance of developing micro, small and medium sized enterprises as a way of achieving several goals. Such as providing work opportunities, adding to the GDP, creating needed input for larger enterprise and contributing to the export sector. In order to realise the characteristics of MSE, their possibilities and constraints, studies were conducted all over the world. Some of the studies explore the economic motivation, capabilities, sources of finance, dynamic and links with other firms and with in the market, while other studies concerned in employment creation, entrepreneur-worker relationships, dispute settlement mechanism and trade union affiliates. (Alia and magued, 2000)

In the majority of fast developing countries, MSE by virtue of their size, location, capital investment and their potential to generate greater employment have proved to have crucial effect for rapid economic growth. Further more the sector also doesn't require high level training, much capital, and sophisticated technology. More importantly, MSE creates job opportunities for a substantial segment of the population. However, most MSE face critical constraints at the start up and operation level. Among some of the constraints, included are lack of access to finance, lack of access to premise or land, lack of infrastructure, lack of entrepreneurial and managerial skills, lack of information on business opportunities, social and cultural facts and excessive corruption. (HLCLEP, 2006)

Africa is a continent of entrepreneurs, many Africans are engaged in several MSE at one time, and however these Africans are not engaged in MSE at their full capacity which is rather frustrated by an environment which is not suitable to small business in many ways. Since small enterprises have greater potential to employ more Africans than they currently do ,currently around 20% of the population of working age in African countries works in small enterprise sector.(Jim.T.ILO/IFP-SEED,as quoted by Goldmark and Nichter ,2008)

1.2 Overview of Ethiopian micro and small enterprise

Like many other developing country, Ethiopia is a country which have many number of MSE that can absorb a lion share of the labour force and add up to the GDP of the country. A nation urban informal sector survey by CENTRAL STATISTICAL AUTHORITY OF ETHIOPIA (CSA, here after) in 1996 shows that the urban informal sector consisted of 584 ,911 micro enterprise that gave employment to 730,969 job opportunity. Further more MSE of Ethiopia contributes value added of 8.3 million birr in the same budget year. This figure constitutes 3.4 % of GDP, 33 % of the industrial sector contribution and 52 % of the manufacturing sector's contribution to the GDP of the same year. (MOTI, 1997) In addition to this the other nation wide survey by CSA in 2002 shows that there were 974,676 cottage and handicraft manufacturing establishments (of which.616.696 or 63 percent were in rural areas while 357.979.or 36.7 percent ,were in rural areas)engaging more than 1.3 million people. (Ajeba and Amha, 2004)

While the importance of large industries and enterprise for the growth of Ethiopian economy can not be denied, there is ample evidence that the labour absorptive capacity of the Micro and small enterprise sector is very high, the average capital cost per job created is lower than big business and its role in technical and other motivation activities is vital for many of the challenges facing our country. According to the 1996 survey by CSA, the whole labour force engaged in MSE is more than eight fold (739,898) to that of the medium and large scale manufacturing industries (90,213 person).(MOTI, 1997)

Eventhogh MSE of Ethiopia have the above socio-economic attributes (especially in terms of employment and income), there are varieties of constraints and problems that impediments the sector. Among the problems included are unfavourable regulatory environment, limited access to market, lack of finance, business development service, business information, business premise/land, the acquisition of skills and managerial expertise, restricted access to

appropriate technology and limited access to quality business infrastructure. (Ajeba and Amha, 2004)

By understanding the importantness of MSE, the Federal democratic republic of Ethiopia has recognized and paid due attention to the promotion and development of MSE sectors for they are important vehicles to address the challenge of unemployment, economic growth and equity in the country. To achieve these objectives, the government of Ethiopia has formulated a National MSE strategy which emphasis on to alleviate the problems and promote the growth of MSE sector. Specifically, the main objective of this strategy is to create an enabling environment for small and micro enterprise. To implement the strategy ,the major government organs to be involved are ministry of Trade and Industry, Regional Bureoux,Federal MSE development agency, Regional MSE development agency ,Zone's or woreda 's MSE agencies ,NGO 's and Business Associations. (MOTI, 1997)

1.3 Overview of Wolkite town micro and small enterprise

Wolkite town (the case study area for this paper) is found in southern part of Ethiopia in the region of southern nation and nationalities of people republic (SNNPR).The town comprised of the total population of 39,854 from this figure 19,641 are males and 20,213 are female. The town is the capital city of Gurage Zone and located 158 kilo meters from Addis Ababa (south of Addis Ababa).Further more, the town is divided in to two sub-city such as "Addis ketema" sub-city and "Bekur" sub-city. The majority of the residents of the town are engaged in micro and small enterprise. Specifically on Trade, service and manufacturing. In terms of ownership types, micro and small enterprise of wolkite town can be classified as sole proprietorship and cooperatives.

The cooperative type of micro and small enterprise are organized and working condition are facilitated (access to credit service, access to land, etc) by wolkite town micro and small enterprise agency in cooperation with other government bodies such as omo micro finance wolkite town branch , wolkite town integrated housing development project office ,wolkite town municipality and other responsible government bodies.

The sole proprietor types of micro and small enterprises are self operated, or two or more paid labourers and/or non paid family members. The majority of MSEs of Wolkite town are the sole proprietor types.

The three major sectors operated by sole proprietors and cooperative types of MSE of Wolkite town are trade, service and manufacturing. 1) trade include:-sales of all goods, local drinks, construction materials, clothes and shoes, music or video, electronic equipment, vegetables and fruits, drug store, stationary and general food items, 2) service include:- barber and beauty salon, bicycle rent and repaire, bar/restaurants and hotels and 3) manufacturing include:-bakery, tailor, the production of blocket and precast beam ,grain mill and wood and metal work.

Although the majority of the resident of the town make their livelihood on micro and small enterprise (specifically in terms of employment and income generation), there are multiple of constraints and problems associated to the sector. Among the most critical constraints included are access to finance, lack of land, lack of market (especially for cooperatives), lack of managerial and entrepreneurial skills and lack of infrastructure (water, road and electric power).

1.4 Statement of the problem

MSEs have received much attention in recent development literature and in on going development strategies in many developed and developing countries. One of the main reasons in favour of MSE is its ability to create employment opportunities which arises because the majority of MSE adopt labour intensive techniques of production. Further more, MSEs have employment stabilizing behavior. In other words MSEs are reluctant to employ more workers like that of big firms at the time of economic boom situations and also MSE are also do not reduce many number of workers at the situation of economic recession.Thus,MSE have the characteristics of employment stabilizing behavior. (Alia and Magued, 2000)

The MSE in relation to large firms are relatively more labour intensive, more efficient and more equitable in distributing the income they generate, and more widely dispersed geographically. Unfortunately, there are no economic and political conditions favourable to develop them. The survey reports of central statistical authority of Ethiopia (2003) indicates that MSE sector in Ethiopia face a wide range of constraints such as unfavourable regulatory environments, limited access to market ,lack of finance ,business development service ,information, business premise, the acquisition of skills and managerial expertise ,restricted access to appropriate technology and limited access to quality business infrastructure. (Ajeba and Amha, 2004)

The assessment conducted by high level commission on legal empowerment of the poor (HLCLEP, 2006) on the informal sector of Addis Ababa town clearly indicates that among the

many impediments that hinder the informal sector not to expand are lack of access to finance, lack of access to premise, lack of training in managerial and entrepreneurial skills, lack of information on business opportunities, social and cultural facts. HLCLEP's study uses case study on street vendors, focus group discussion and key informant interviews. However, the study covers only informal sector which are not legally registered by the government, the rest informal sector or MSE which are officials are not included in the study.

The study conducted by Ajeba and Amha (2004) on business development service of MSE of Ethiopia indicates that there is very limited business development service to MSE of Ethiopia. Specifically, very limited technical and vocational training (before start of the business), received limited short term training, counselling and extension and marketing service. However, their study focuses only on a single constraint (business development service) among the many constraints that Ethiopian MSE sector faces.

Another study also conducted by the same author (Amha and Ajeba, 2006) on micro and small enterprise finance in Ethiopia. Their study identifies reasons not to access to finance and also identifies the most important source of finance for MSE of Ethiopia. However, their study once again addresses a single constraint (access to finance and source of finance of MSE) among the many impediments of MSE of Ethiopia. Therefore both of the study conducted by Ajeba and Amha (2004, 2006) on MSE of Ethiopia focuses only on business development service and access to finance. Unlike their studies (which doesn't mean that their work is unimportant), the MSE of Ethiopia posses multiple of constraints such as unfavourable legal environment ,access to finance ,managerial and entrepreneurial skills, lack of marketing ,lack of raw materials ,business information and business development service.

More related to the paper under study is the work done by Gebreyesus (2007).Gebreyesus's work is based on the survey conducted on six major towns of Ethiopia (Addis Ababa,Awassa,Bahirdar,Mekelle,Jimma,and Nazreth) covering 974 randomly selected MSE.The study finds that the major determinants of Ethiopian MSE not to succeed or expand are access to finance, human capital,formality/informality,location,gender ,sector ,age and size of the firm. From these factors firm age, firm size, human capital (high school complete and some college), access to finance (trade credit and informal credit), types of sectors (manufacturing and trade) and gender (male headed business) are found to be significantly determines the growth / expansion of MSE of Ethiopia. On the other hand, gender (owner age) ,access to finance(credit

from bank and MFI),human capital (elementary (1-8)and vocational training) and location (Bahirdar,Jimma ,Mekelle and Nazreth) are found to insignificantly determines the growth/expansion of MSE of Ethiopia.(Gebreyesus,2007)

However Gebreyesus's study considers only micro and small enterprises that employees 10 or less workers, it excludes MSE which employees more than 10 employees. More importantly, the study did not critically evaluate and examine the socio-economic attributes of MSE (specifically income generation and employment opportunity).The study solely emphasised on determinant factors and ignores the socio-economic attributes of MSE of Ethiopia.

From these previous studies we can infer that MSEs have socio-economic contribution such as income generation and employment opportunity. However, there are constraints or determinants that affect or hinder for the growth or expansion of MSE. Therefore, Even if there are some study conducted on MSE of Ethiopia. None of these studies consider the socio-economic impacts (employment opportunity and income generation) and constraints of MSE simultaneously. Even the studies that conducted on the constraints of MSE cover only informal MSEs Where as other study focus only on a single constraint from among the multiples of problems. Furthermore some of the studies uncover all MSE (focused only on micro enterprise and ignores the small enterprise for instance Gebreyesus (2007)).

Considering the limitation of the above studies and to fill the gap of knowledge on the existing literature on MSE of Ethiopia. Based on a new survey in a specific location (in this case wolkite town), this paper tries to critically examine and evaluate the socio-economic attributes of MSE (specifically, income generation and employment opportunity) and their determinants or constraints (access to capital, education, gender, formality/informality, and other constraints) simultaneously.

Therefore the value added of this study or the two basic questions to be answered in this study are:-

1) Do MSE have socio-economic attributes (specifically income generation and employment opportunity)?
2) What are the determinants of MSE to succeed or to expand?

1.5 Objectives of the study

The general objective of the study:-

- To investigate and evaluate the socio-economic impacts and constraints of MSE simultaneously using a new survey.

The specific objective of the study:-

- To assess and identify the major socio-economic attribute of MSE. Specifically, employment opportunity and income generation.
- To find out the basic determinant factors or constraints that impediments MSE not fully utilise their capacity and/or that hinders not to grow or expand.

1.6 Hypothesis of the study

1) Micro and small enterprise has socio-economic contribution. Specifically, they have a potential to create job opportunity and income generation for many number of wolkite residences (the case study for this paper).
2) There are some determinants/constraints for the success and growth of MSE. Among these constraints included are human capital, demographic factors, credit access, types of sectors, business location, formality/informality, size of firms, age of the firm and other constraints.

SECTION 2: LITRATURE REVIEW

2.1 Definition of MSE

The yardstick used to define MSE varies across different continent and / or countries. Even though there is lack of universal definition of MSE, most of the definition uses number of employment and the amount of initial capital or annual balance sheet as a criterion to classify enterprise as micro, small, medium and large. For instance, European union (applicable in its member states) defines micro enterprises which employs fewer than 10 persons and annual balance sheet does not exceed 2 million Euro and also defines small enterprise as an enterprise which employs fewer than 50 persons and whose annual balance sheet total does not exceed 10 million Euro. (EU, 2003)

Wikipedia-the free encyclopedia defines micro-enterprise as a type of small business who have five or less employees and a fixed capital not more than 35000 dollars. These enterprises have no access to the commercial banking sector and microfinance institutions are the major source of finance.

(Wikipedia-free encyclopedia, 2008)

Micro enterprises are very small income generating units and which are a source of livelihood for a growing number of families. These enterprises are characterized by limited capital, managed by the owner (who is also involved in operations),consists of one self employed individual, rely on family labour,lack advanced skill or technology, provide the main source of family income and most of them operates in the informal way.

(N.Maclsacc, 1996)

The 2006 IRIS study for the USAID defines micro enterprises as an enterprise that employ 10 or fewer worker in which the owner / operators of the enterprise is considered poor. More specifically the study defines MSEs as firms that employ up to fifty workers which are engaged in non-primary activities and sell at least 50 percent of out put. These categories include both micro enterprise which employ up to 10 workers as well as small enterprise which have between 11 and 50 workers. (USAID, 2006)

In the case of Ethiopia, there is lack of uniform definition of MSE at the country level. The ministry of Trade and industry of Ethiopia uses capital investment while the Central statistical Authority of Ethiopia uses employment as a criteria or a Yardstick to define MSE of Ethiopia. Using a blend of these criteria, MSE of Ethiopia can be defined as:-micro enterprises

are an enterprise that are independently owned and operated, have small share of the market, managed by the owner and employing ten or less employees and capital reaching up to 20,000 birr. On the other hand, small enterprises are those enterprise that employ 6 to 49 employees and capital more than 20,000 but less than 500,000 birr. (HLCLEP, 2006)

2.2 Theory of small firms

2.2.1 Firm growth theories

There are different firm growth theories in industrial economics literature. Among these Gibrat (1931) and Jovanovic (1982) firm growth theories can be mentioned.

2.2.1.1 Gibrats firm growth theories

Gibrat (1931) firm growth theory is the oldest and the most popular theory. In his theory Gibrat develops the law of proportionate effect (LPE) which states that the rate of growth a firm is independent of its initial size.(Elhiraika and Nkurunziza,2006). In other words, Gibrat's law establishes that firm growth is a random walk i.e. the probability of a given proportionate change in size during a specified period is the same for all firms in a given industry. (Esteves, 2007)

2.2.1.2 Jovanovic firm growth theory

Jovanovic (1982) develops a learning model which argues that younger firms learn overtime which helps them to improve their performance as they accumulate market knowledge. Thus, according to this model young firms grow faster than old ones. (Elhiraika and Nkurunziza, 2006)

2.3 Types of micro and small enterprise

MSE comprised of heterogeneous types. The heterogeneity of MSE can be explained in terms of size, gender of owner, location and sector of activity. Most MSEs are single person, owner operated enterprises or slightly larger units engaging one or more family members. According to Harvie (2003), there are three basic approaches for classifying MSE. These are: - 1) The livelihood-growth enterprise dichotomy (first approach) 2) Liedholm and mead (second approach) 3) MSE from a micro-finance perspective (third approach). (Harvie, 2003)

2.3.1 The livelihood-growth enterprise approach

This approach of classifying MSE emphasizes the needs and constraints of MSE. Based on the different motives this approach also classifies MSE in to livelihood (survival) activities and growth oriented (viable) enterprises.

2.3.1.1 Livelihood (survival) types of MSE

These types of MSEs are motivated for more profitable alternatives. These enterprises are characterized by seasonal activity undertaken to support family income, requires no skills, very low entry barrier to the activity and hence overcrowded, the net gain used for survival purposes and this types of MSE play an important role in poverty alleviation.

2.3.1.2 Growth oriented (viable) types of MSE

These types of MSE motivated by consideration of profitability. Such type of MSE characterized by the activity which is the main source of family income requires experience and skills, the surplus from the activity is reinvested in the expansion and growth of the enterprise and also these MSE have the potential for the contribution of sustainable growth and development.

2.3.2 Liedholm and mead approach

Liedholm and Mead (1995) classifies MSE in to four types which is based on past growth performance as measured in terms of number of workers added. According to this approach MSEs are classified as: - a) new starts (enterprise in start up phase), b) new growth firms (enterprise that survived but had not grown), c) small growth firms (an enterprise that had shown small growth) and d) graduate firms (an enterprise that had graduated and become enterprise with ten or more workers).

2.3.3 MSEs from micro finance perspectives

The microfinance literature classifies MSE in to three types based on their level of business development. These are: - a) unstable survivors (an enterprise which need credit for consumption smoothing rather than income generating activities), b) stable survivors (an enterprise which requires credit for both production and consumption needs),c) growth enterprise (an enterprise which require credit for job creation and to move MSE from the informal sectors to more formal environment).

2.4 The socio-economic contribution of MSE

2.4.1 Generates income and employment opportunity

The contribution of MSE to employments growth and sustainable development is widely acknowledged. Their development can deepen the manufacturing sector and faster competitiveness. It can also help achieve a more equitable distribution of economic growth and thereby help alleviate some of the problems associated with uneven income distribution. (UNCTAD, 2005)

MSE provide income and employment for a significant proportion of workers in rural and urban areas by producing basic goods and services for rapidly growing populations. (Elhaika and Nkuriziza,2006).The role of MSE in employment and income generation is increasingly recognized and has become a major playing field for policy makers and donors with dual objective of enhancing growth and alleviating poverty. (Gebreeyesus, 2007)

In most fast developing counties, MSE because of their size, location, capital investment and their capacity to generate greater employment proved to have an important effect for rapid economic growth. The sector is also an instrument in bringing about economic transition by using the skills and talents of the people with out requesting high level training, much capital and sophisticated technology. (MOTI, 1997)

Micro enterprises are a large growing and very dynamic element of the economies of developing countries. Further more, MSE generates output, employment and incomes and also strengthens intersectoral linkages leading to more integrated and balanced growth. It also promotes more broad based participation (especially for the poor and by women) in productive activities, leading to more equitable distribution. (N.Maclsaac, 1996)

2.4.2 Innovation and entrepreneurship

MSEs are the engine of growth and entrepreneurship in many countries. Since MSE tries to exploit new market opportunities, this will make MSE to produce different types and quality of products with response to market needs and hence this in turn bring innovations to the market place. (USAID, 2006).More importantly, MSE is considered as the natural home of entrepreneurship. (MOTI, 1997)

2.4.3 Capital accumulation or financing

MSEs are an important source of capital creation, asset accumulation and domestic investment. In addition MSEs are an important source of finance for small entrepreneurs. Specifically, MSEs are a source of cash for investment to individuals who would not have access to the formal financial system. (USAID, 2006)

2.4.4 Linkages with large firms

MSEs have linkages with large firm in terms of value chain and trade credit relationships. These interactions between MSE and large firms benefit both of them and hence enhance the overall growth of the economy. (USAID, 2006)

2.4.5 Rural or regional development

MSEs provide service outside of regional or capital city's to areas that are marginally less profitable for larger merchants and hence tend to be ignored.(USAID,2006) MSEs can stimulate the local economy by increasing the aggregate demand and allow for greater investment. Further more, MSEs are suitable to areas that are unsuitable for medium and large scale firms, decentralized development, regional balance growth and small town's growth. (Gebreegizabher and Demeke, 2004)

2.5 Determinants or constraints of MSE growth

In most developing countries MSE face a wider range of constraints and problems and they are unable to address the problems they face on their own. Among the constraints are related to legal and regulatory enviroments,acess to market,finance,business information, business premises (at affordable rent),access to appropriate technology and access to quality business infrastructure. (MOTI, 1997)

The provision of financial service to MSE will help them to expand and/or grow. For instance, the study conducted on Egypt's MSE by Alia and Magued (2000) made a comparison between MSE that received financial service and not received financial service. The result of the study shows that MSE that received financial services are successful in employment creation, raising productivity and improving workers skills and hence growth of the firm. But MSE that did not receive financial service are less successful in employment generation, raising productivity and improving workers skills.

Business development service is one of the factors that affect the business performance of MSEs. These include the delivery of services such as consultancy, training, advising, transporting, linking, informing, maintaining, communicating, etc in a sustainable way. The presence of high quality business development service are important for MSE operators to acquire new skills and products, know how, technology and market in an increasingly competitive domestic and global environment. (Amha and Ajeba, 2004)

2.6 Empirical evidence

The study conducted by Leidholm (2001) on some Latin American countries (Jamaica and Dominican republic) and five eastern and southern African countries (Kenya, Botswana, Malawi, Swaziland and Zimbabwe) indicates that the number of micro and small enterprise is larger than is reported in most official statistic (which cover only registered firms).According to this study 17 to 20 percent of the working age population are employed in MSE. Further more employment densities (the number of people engaged in MSE activities per 1000 person's in population) ranged from 70 to 90 in Botswana, Kenya, Lesotho, and Malawi where as Zimbabwe, Swaziland and Dominican republic ranges from 70 to 100.The most interesting finding of this survey is that the estimated MSE employment in the surveyed African countries is twice the level of total employment in the registered large scale enterprise and public sector. Therefore this empirical evidence clearly implies MSE are the major source of livelihood for a significant proportion of the population in these areas.

Evans (1987) using the sample of 100 manufacturing industries between 1976 and 1980 examines the relationship between firm growth with firm size and age. The study finds that firm age is an important determinant of firm growth and extending the analysis finds out two basic relationships. First, firm growth decreases with firm size and firm age. This negative relationship between growth and size holds for 89 percent of the industries and negative relationship between growth and age holds for 76 percent of the industries. Second, the probabilities of firm survival increases with firm size and age. This positive relationship between survival and size holds for 81 percent of the industries and the positive relationship between survival and age holds for 83 percent of the industries. Therefore growth-age relationship is consistent with the prediction of Jovanovic theory of firm growth in which entrepreneurs learn about their abilities overtime. On the other hand growth-size relationship is inconsistent with Gibrat's law which asserts that firm growth is independent of size.

As evidenced from the survey of MSE of Latin America and eastern and southern African countries shows that the major determinants for MSE to expand or to grow are size of the firm, age of the firm, types of sectors,location,country,human capital and gender of the owner. Specifically, age of the firm and initial size of firm are negatively and significantly related to firm growth and expansion. Sectors such as service and manufacturing grow more than trade activities. Locations such as MSE in rural towns are less rapidly grows than urban base firms.

Gender such as male owned enterprise grows more rapidly than female enterprise and finally human capital significantly affects the MSE growth. (C.Leidholm, 2001)

The study conducted by Nichter and Goldmark (2008) on the small firm dynamics or firm growth based on the survey of developing countries indicates that the growth and success of MSE is determined by four factors such as :- 1) individual entrepreneur characteristics (education, experience and gender and households).2) firm characteristics (firm age ,formality/informality, and access to finance).3) relation factors (value chain, social networks and interfirm cooperation) 4) contextual factors (such as business environment).These factors have negative and positive impacts on the growth and success of the firm. Specifically, education of owner (above threshold) ,work experience of owner, access to finance, social net works (strong and diverse), value chain (favourable),interfirm cooperation and business environment (favourable) have a positive impact on the growth and success of MSE.On the other hand ,gender (female owned),firm located in house hold ,firm age (older) and informality have a negative impact on the growth and success of MSE.(Nichter and Goldmark (2008)

SECTION 3: THE DATA ANALYSIS

3.1 The nature of the data

The data used for this study is obtained from the case study area (Wolkite town) by selecting 100 samples (80 samples from sole proprietorship and 20 samples from co-operatives types of MSEs) of MSE among the different categories of MSE. In identifying the sample, stratified sample selection procedure is utilized in order to have representative sample. To investigate the necessary information and evidence, detailed questionnaires is structured (see appendix F). The designed questionnaire is wide and includes questions related to individual owner's related factors (owner's age, marital status, gender,experience,training etc) and firm related factors (employment opportunity, income generation, age and size of business, access to finance, marketing, business location, the type of sector, etc).

3.2The Socio-economic contribution of MSE

3.2.1 Employment opportunity

3.2.2 Income generation

3.2.1 Employment opportunity

3.2.1.1 Employment opportunity by the type of sector and gender and by the types of ownership (Percentage in parenthesis)

As evidenced in table 3.1 trade, manufacturing and service sector generates 26%, 46% and 29% of employment opportunity respectively. Manufacturing sector absorbs the highest share (46%) of the labour force which partly because the nature of the activity of manufacturing sector invites more labour force than trade and service sector.Interms of gender ,the number of male (68%) higher than female (32%) (To save space the data not reported here) and hence MSE creates more job opportunity for male than female.

Table 3.1:-Employment opportunity by the type of sector and by gender

Types of sector	Gender		Total
	Male	female	
Trade	83(21)	68(36)	151(26)
Manufacturing	230(57)	40(21)	270(46)
Service	90(22)	82(43)	172(29)
Total	403(100)	190(100)	593(100)

Source:-Field survey

From the surveyed sample, sole proprietorship and cooperative types of ownership is found. Sole proprietorship types of business employ more people (58%) than cooperative business (42%) (See table 3.2).That is why most business in the surveyed town (Wolkite town) is owned by an individual (which is sole proprietorship).

Table 3.2 Employment opportunity by the types of ownership

Ownership type	Employment opportunity
Sole proprietorship	343(58)
Cooperative	250(42)
Total	593(100)

Source:-Field survey

3.2.1.2 Growth rate of Employment opportunity by sector and by Ownership types (Percentage in parenthesis)

The growth rate of employment opportunity can be observed by differentiating the timing of employment in to employment at the start of the business and employment during the survey time in each respective sector. Table 3.3 shows the employment growth rate in trade (19%), in manufacturing (9%) and in service (6%).On aggregate, employment opportunity grows from 540 at initial period to 593 at current period which is 10.2% growth rate. Further more, the growth rate of employment in trade (19%) is higher than the rest sector which is partly because the trade sector has fewer barriers to enter and the most widely experienced activity in the surveyed town.

Table 3.3:-Growth rate of employment opportunity by sector type

Duration of employment	Employment opportunity by sector			Total
	Trade	manufacturing	service	
At the start of the business	128	249	163	540
During the survey	152	271	172	595
Growth rate	24(19)	22(9)	9(6)	55(10.2)

Source:-Field survey

As table 3.4 reveals the growth rate of employment opportunity can also be analyzed by the type of ownership. Accordingly, the sole proprietorship employment opportunity growth by 55% on the other hand the cooperative employment opportunity declined by 21%.The main reason for the decline in the number of employment in cooperatives types of business are the conflict among the members, lack of market access, shortage of raw materials, lack of managerial know how (skill),etc.

Table 3.4:-Growth rate of employment opportunity by ownership type

Duration of employment	Employment by ownership type		Total
	Sole proprietorship	cooperative	
At the start of the business	223	317	540
During the survey time	345	250	595
Growth rate	122(55)	67(-21)	55(10.2)

Source:-Field survey

3.2.2 Income generation

3.2.2.1 Income generated by the type of sector per month and by the type of Ownership of MSE of per month (Percentage in parenthesis)

As evidenced in table 3.5 sectors varies in their income generation capacity. Trade, manufacturing and service sector generates 43%, 40% and 18% amount of income respectively. Trade sector generates the highest income per month (43%) and the service sector generates the lowest income(18%).These differences arises due to most citizens of the surveyed town relies their livelihood on trading activities.

Table 3.5:-Income generated by the type of sector per month (in birr)

Sector type	Income generated per month
Trade	222,150(43)
Manufacturing	207,100(40)
Service	92000(18)
Total	521,250(100)

Source:-Field survey

There is also the difference in income generation capacity in terms of ownership type. As shown in table 3.6 sole proprietorship generates 71% of the total income per month while that of cooperatives generates 29% and hence sole proprietorship generates the highest income(71%) which is twice the income generated by the cooperatives. This variation originates once again because the majority of the business owned by individuals (sole proprietorship).

Table 3.6:-Income generated by ownership type per month (in birr)

Types of ownership	Income generated per month
Sole proprietorship	369,700 (71)
Cooperatives	151,550 (29)
Total	521,250 (100)

Source:-Field survey

3.2.2.2 Income generated in terms of salary paid to employee of MSE by sector and Ownership type (Percentage in parenthesis)

Income can be generated in terms of salary paid to employee of MSE per month. The reasoning lies on the fact that the salary expense by the owner of MSE is considered as an income for the employees of MSE. These are evidenced on table 3.7 which shows salary paid per month to employees in trade, manufacturing and service is 15%, 64% and 21% respectively. The salary paid in manufacturing sector four times and three times higher than that of trade and service sector respectively. These differences arise partly because unlike manufacturing sector, the trade and service sector operated by owners themselves and their family members (so no income for employee).

Table 3.7:-Income generated in terms of salary paid to employee per month (in birr)

Types of sector	Salary paid per month to employee
Trade	26,560(15)
Manufacturing	109,950(64)
Service	36,350(21)
Total	172,860(100)

Source:-Field survey

In terms of ownership type there is also the variation in the amount of salary payable to employee's to MSE. Table 3.8 reveals that out of the total sample 53% and 47% of salaries payable by sole proprietorship and cooperative types of ownership respectively. The salary paid per month is greater for sole proprietorship than that of cooperatives which is because sole proprietorship employs more people than that of cooperatives.

Table 3.8:-Income generated in terms of salary by ownership type (in birr)

Ownership type	Salary paid per month to employee
Sole proprietorship	91,810(53)
Cooperative	81050(47)
Total	172,860(100)

Source:-Field survey

SECTION 4: ECONOMETRIC ANALYSIS OF THE DATA

4.1 The empirical framework

Following Evans (1987) and Gebreeyesus (2007) the firm growth equation that relates firm growth to its initial size, age and other control variables can be specified as:

$$\frac{\ln St - \ln Sto}{A} = B_o + B_1 \ln(S_{to}) + B_2 \ln(A_t) + \sum r_i x_i + U_t \quad \text{----------(1)}$$

Where

S_t - Represents firm's current size

S_{to} - Represent firm's initial size

A - Represent firm's age

X – Represent other control variable

U – Represents the normally distributed error term with mean zero and a non Constant variance.

By incorporating the specific control variables in to equation (1), the firm growth equation can be respecified as:-

Annual employment

$$\text{Growth } (\frac{\ln St - \ln Sto}{A}) = b_0 + b_1 \ln S_{to} + b_2 \ln(A) + b_3 Li) + b_4 \ln(Pre) + b_5 Educ + b_6 Bus + b_7 male + b_8 married + b_9 \ln(age) + b_{10} FC + b_{11} IC + b_{12} Sec + b_{13} Mkt \text{ --- (2)}$$

Where:-

S_t-current (survey time) size of the firm in terms of employment number

S_{to}- initial size of the firm in terms of employment number

A-age of the business (firm) in years, transformed in to logarithmic form

Li- Have license (the dummy takes 1 if it has license and 0 other wise)

Pre-previous experience of the owner by months, in logarithmic form.

Educ-education level of the owner (the dummy takes 1 if literate and 0 if illiterate)

Bus – Business training of the owner (the dummy takes 1 if trained & 0 otherwise)

Male – Owner male (the dummy takes 1 if the owner is male & 0 if it is female)

Married – Owner married (1 if the owner is married & 0 if it is not married)

Age – age of the owner in years, transformed in to logarithmic form

FC – Formal credit (the dummy takes 1)

IC – Informal credit (the dummy takes 1)

Sec- sector (1 if the firm is on manufacturing and service sector and 0 if on trade)

Mkt- market area of the business (the dummy takes 1 if the firm located in

traditional market area and 0 other wise)

Some Explanation of the main variables in the regression

Firm size is measured in terms of employment which represents the number of regular workers that comprised of working owners, paid workers and unpaid workers in the firm on a permanent base (Gebreeyesus, 2007). It is also possible to estimate firm size in terms of sale, profits or fixed asset rather than employment but this may result some measurement errors. The errors probably emanated from lack of recalls (since most MSE do not keep records and unable to report their sales and profit accurately) and inflation (unlike to sales or fixed assets employment is not affected by inflation).Further more, most owners of MSE are not ready to tell the exact amount of sales and profit because of fear of taxation and hence, they underestimate their sales and profit.

The firm age is measured in years from the birth of the firm to the time of the survey. Apart from firm's initial size and age, other six major variables that might have some impact on the growth of the firm are considered. These are formality of the firm, human capital, demographic factor, access to finance, sector and market location. The summary statistics of these variables are depicted on appendix A.

The firm is said to be formal if it has business license, the dummy business license takes one if the business has license and zero other wise. Human capital can be expressed in terms of owner's previous experience, education status and business training. Owner's previous experience measured in months and transformed in to logarithmic form. Education status of owners estimated by illiterate as reference and if the owner is educated the dummy takes 1 and 0 if the owner is illiterate. Business training measured by the dummy 1 if the owner of the business trained and 0 otherwise (if it is not trained).

Demographic factor of the owner can be explained in terms of gender, marital status and owner's age. Gender measured by the dummy 1 if the owner is male and 0 otherwise (if it is female). Marital status estimated by the dummy 1 if the owner is married and 0 otherwise (if it is not married). Owner's age measured in years but transformed in to logarithmic form. Access to finance measured by credit access variables ,for the purpose of this study credit access variables broadly classified in to formal credit access from banks and MFI and informal credit access from trade credit, relatives/friends, family and own saving. Thus the two dummies would be having formal credit access and having informal credit access.

To capture the effect of sector on firm growth, the sector that MSE involved broadly categorized in to trade, manufacturing and service. Trade considered as a reference (control) and hence the dummy takes 1 if the sector is whether manufacturing or service and takes 0 if the sector is trade. In order to find out whether the location of the firm has an impact on firm growth or not. We introduced market location variable, market location refers to the location of the firm on traditional market area (around the main road and commercial district).Therefore the dummy takes 1 if the firm is in traditional market area and 0 other wise (if the firm is not located in traditional market area).

The growth of the firm is calculated as the logarithmic difference between initial employment size and current employment size divided by the age of the business. This calculation might have some limitation because when we calculate size between two end points (initial and current size) the fluctuation in the middle time will be ignored (Gebreeyesus, 2007). The transitory fluctuations in size or transitory measurement errors in observed size could bias the growth regression (Davis, Haltiwanger, and Schuh, 1996 as quoted by Gebreeyesus (2007)). But Gebreeyesus (2007) found no significant variation in the middle years for MSE of some selected towns of Ethiopia and McPherson (1996) also found no significant fluctuation in the middle years for MSE of Zimbabwe.

The other suspected statistical problem in the above specified model is the problem of heteroskedasticity. This can be addressed by estimating heteroskedasticity corrected standard error (which is known as robust standard error) and hence the estimated model can be freed from heteroskedasticity problem. Specifically, by using white (1980) heteroskedasticity test as evidenced by Evan (1987) and Gebreeyesus (2007).Therefore ,to avoid heteroskedasticity problem from the estimated model all the variables regressed in this study have heteroskedasticity corrected standard error (robust standard error).

4.2 Determinants of MSE growth and Empirical results of the survey

The regression result that show annual firm growth with other determinants described by classifying MSE in to sole proprietorship, co-operatives and all types (the combination of sole proprietorship and co-operative types of business). The empirical regression result of the survey depicted on appendix B, C and D.

The following variables are some of the determinants of MSE growth:-

1. Initial size and age of the firm

For the separate regression of sole proprietorship types of MSE firms, both Initial size and age of the firm negatively affects firm growth but for the separate regression of co-operative types of firms both these variables positively affect firm growth. For all types of MSE firms, Initial size of the firm negatively affects firm growth but age of the business affects firm growth positively. Unlike other studies both are insignificant. The negative relationship between initial size and firm growth describes smaller firms grow faster than large firms which is consistence with learning growth model by Jovanovic(1982) and also consistence with previous case studies by Evans(1987),Liedholm(2001) and Gebreeyesus (2007).The positive relationship between firm age and firm growth shows the younger firm grows slower than the older one which is in contrast with learning growth model by Jovanovic(1982) and also in contrast with other similar previous case studies by Evans(1987),Liedholm(2001) and Gebreeyesus(2007).

2. Formality of the business

Formality of the business estimated by whether the business have license or not. For sole proprietorship, co-operatives and all types of MSEs firms (the combination of both sole proprietorship and cooperatives), there is a positive relationship between business formality (have license) and firm growth. Formality is significant for co-operative types of firms. Formal firms grow faster than informal ones. This is partly because formal firms(since they have legal document) have the better chance to engage on government programs such as public procurement, training, business development service and bank loans (Gebreeyesus, 2007).On the other hand informal enterprises face greater difficulties in obtaining formal credit and assistance from law enforcement agencies and courts. Further more such positive relationship is consistence with the previous studies by Nichter and Goldmark (2008) and Gebreeyesus (2007).

3. The previous experience

The previous experience of the owner has positive impact on firm growth and found to be significant for all types of firms (the combination of sole proprietorship and co-operatives).The business owner who has previous business experience can grow faster than owners with out previous experience which is also consistence with Nichter and Goldmark (2008) and Gebreeyesus (2007).Therefore, the government should give consultancy and other supports for MSEs to have some business experience before starting the operation of business.

4. Education level

Education level of the owner has negative impact on MSE growth for sole proprietorship types of MSEs and for all MSEs (the combination of sole-proprietorship and co-operatives) which is unexpected outcome (because education level is expected to promote MSEs growth and hence should positively affect firm growth). But the separate regression of co-operative types of business shows education positively affects MSEs growth. Education status of MSEs owner negatively affects the growth of the MSEs which implies education level may not as such significantly important for the growth of MSEs. The reasoning lies on the facts that for the operation of most MSEs do not require the application of advanced technology and technical skill or know how. Further more, the majority of interviewed in the survey respond that they are primary school educated and their education status is not the constraint to expand their business. However, using this specific survey result the benefit of education for the development of human capital (and hence firm growth) cannot be underestimated (education has the potential to promote basic human skills). The previous studies by Nichter and Goldmark (2008) and Gebreeyesus (2007) indicate education level of the owner has mixed impact on the growth of the firm.

5. Business training

Business training positively affects firm growth for co-operative types of MSEs and all types of MSEs (the combination of sole-proprietorship and co-operatives).This indicates MSE with business training can grow faster than MSE with out business training. Unfortunately in this study, business training of the owner negatively affects the growth of the firm for the separate regression of sole proprietorship types of MSEs which is unexpected outcome. This outcome is partly because almost the majority of sole proprietorship MSEs do not take business training. so that business training can not explain the growth of sole proprietorship types MSEs.

6. Demographic factors (gender, marital status and age of the owner)

Gender can influence the growth of the firm. Male owned firm and married owners positively affects the growth of the firm for all types firms and for the separate regression of sole proprietorship and co-operative types of firms. Male headed firms grow faster than female headed firm but it is found to be insignificant. Further more, the descriptive part of the data also shows MSE creates more employment level (estimator of size in this study) for male than female. The existence of this difference partly because women apart from business activity, they are also busy at domestic activity (such as raring children and carrying family) than male. This outcome is consistence with the study by Liedholm (2001), Gebreeyesus (2007) and Nichter and Goldmark (2008).

Owner age affects firm growth negatively for all types of firms and for the separate regression of sole proprietorship firms. But for the separate regression of co-operative types of firm, owner age positively affects firm growth.

7. Access to finance

Formal credit access negatively while informal credit access positively affects firm growth for all types of firms and for the separate regression of co-operative types of firms. The negative empirical result of Formal credit access (from banks and MFI) indicates that formal financial institutions are not the main source of finance because of collateral requirement, high interest rate and other unfavorable condition. Where as informal finance (such as traditional form of money mobilization or 'equb', loan from friends/relatives, etc) is the main source of business growth. This result is consistence with the study by Gebreeyesus (2007).Therefore, it is better for the growth of MSEs to formalize or transform this informal financial access in to formal one.

8. The type of sector

The type of sector on which MSE found can affect the growth of firms. For co-operative types of business firms that involved on trade sector grow faster than that involved on service and manufacturing sector. But service and manufacturing sector affects the growth of MSE positively and found to be significant for all types of firms (the combination of sole-proprietorship and co-operative) and for the separate regression of sole proprietorship firms. For these types of MSE the service and manufacturing sector grow faster than the trade sector which is consistence with the descriptive part of this study where manufacturing and service sector creates more employment level (estimator of size in this study) than the trade sector. Further

more, this empirical result is consistence with the studies by Liedholm (2001), Gebreeyesus (2007) and Nichter and Goldmark (2008).

9. Location of the firm

The location of the firm can explain the growth of the firm. In this study the firm located at traditional market (road side and commercial district) positively affects the growth of the firm for all types of firms and for the separate regression of both sole proprietorship and co-operative types of business. The MSE located in traditional market area grows faster than MSE that located in non-traditional market area which is consistence with the studies by Leidholm (2002) and Gebreeyesus (2007).

SECTION 5: CONCLUSION AND SOME POLICY IMPLICATION

In this paper the socio-economic contribution and determinants of MSE simultaneously analysed by using the survey of 100 samples in Wolkite town (the case study area). The socio-economic aspect of MSEs is analysed by considering the different sector and ownership types. MSE has socio-economic contribution (employment opportunity income generation).In terms of sector, manufacturing creates more job opportunity than service and trade sector. In terms of ownership type, sole proprietorship types of business employ more people than cooperative business which is because most business in the surveyed town is owned by individuals.

The growth rate of employment opportunity in trade sector is higher than manufacturing and service sector where as the growth rate of employment opportunity in sole proprietorship business increases by 55% and that of cooperatives declined by 21%.The main reason for the decline in the number of employment in cooperatives types of business are the conflict among the members, lack of market access, shortage of raw materials, lack of managerial know how (skill), etc. To alleviate some of the problem, before starting operation business training should be given on book keeping and accounting systems, entrepreneurship and managerial skill development. MSE can also have the potential to generate income. Income generated by trade sector higher than manufacturing and service sector. These difference arises due to most residence of the surveyed town (Wolkite town) relies their livelihood on trading activities.

Even though MSEs have socio-economic contribution, such as employment opportunity and income generation, there are some impediments or constraints or determinants that can affect the growth of MSE. Among the problem or the determinants included are size and age of the firm, formality /informality of the business ,the previous experience ,education level, business training, demographic factors, access to finance, the type of the sector, and the market location of the firm.

Initial size of the firm negatively affects firm growth but age of the business affects firm growth positively. Formalities of the business and the previous experience have positively affected the MSE growth. Formal firms grow faster than informal ones which is partly because formal firms (since they have legal document) have the better chance to engage on government programs such as public procurement, training, business development service and bank loan. Therefore, improving the regulatory environment could increase the number of firms operating formally, and in turn help enterprises to grow fast.

Firms which have previous business experience grow faster than that of firms with no business experience. Education status of MSEs owner negatively affects the growth of the firm which implies education level is may not as such significantly important for the growth of MSEs except for co-operative types of MSEs. The reasoning lies on the fact that for the operation of most MSEs do not requires the application of advanced technology and technical skill or know how. Further more, the majority of interviewed in the survey respond that they are primary school educated and their education status is not the constraint to expand their business. However, using this particular survey result the benefit of education for the development of human capital (and hence firm growth) cannot be underestimated (education has the potential to promote basic human skills). From this analysis, the previous business experience of the MSE operators more valuable than their educational status for the growth of MSEs. Therefore, the government should give consultancy and other supports for MSE to have some previous experience before starting business operation.

Formal credit access negatively while informal credit access positively affects firm growth for all types of firms and for the separate regression of co-operative types of firms. The negative empirical result of Formal credit access (from banks and MFI) indicates that formal financial institutions are not the main source of finance because of collateral requirement, high interest rate and other unfavorable condition. Where as informal finance (such as traditional form of money mobilization or 'equb', loan from friends/relatives, etc) is the main source of business growth. Therefore, it is better for the growth of MSEs to formalize or transform this informal financial access in to formal one.

The traditional market location has positive effect for the growth of MSEs. Firms at traditional market location grow faster than that of firms at non traditional market area which is confirmed by all types of firms (the combination of sole proprietorship and co-operatives) and also by separate regressions of both sole proprietorship and co-operative types of business. Since there is no commercial business center in Wolkite town, the government should construct commercial business centre at the different location of the town so as to partially avoid the problem of market access.

MSEs which found on manufacturing and service sector grow faster than that found on the trade sector except co-operative types of MSEs. Male owned or headed MSE grow faster than female owned firms which is partly because women apart from business activity, they are also busy at

domestic activity (such as raring children and carrying family) than male. Therefore the policy intervention should give some priority for women MSEs owners on the way to alleviate the problems or constraints of MSE.

Finally, MSEs vary based on sectors and ownership types. These heterogenous MSE faces different kinds of problem and /or constraints, for instance, MSE at start up stage may require working capital while MSE already in existence may require business training. Following this MSE at the different sector and ownership types need various form of help or assistance.

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Appendix

Appendix A

Summary statistics of the main variable in the regression (for all types of MSE)

Variable	N	Mean	Std Dev.
Annual Employment growth from initial to Current Period (lnSt-lnSto)/age	100	0.004	0.838
ln(initial size)	100	1.058	1.082
ln(age of business)	100	1.285	1.252
Have business license	100	0.93	0.272
Owner human capital			
ln(previous experience, in months)	100	2.411	2.028
Education level of owner	100	0.9	0.327
Business training of owner	100	0.22	0.415
Demographic factor			
Male headed business	100	0.85	0.359
Owner married	100	0.75	0.435
ln(owner age)	100	3.474	0.297
Credit access variable			
Have formal credit access	100	0.28	0.451
Have informal credit access	100	0.76	0.429
Sector	100	0.59	0.494
Market area	100	0.58	0.492

Appendix B

Determinants of all types of MSE firm growth, empirical regression results of the survey

Dependent variable Annual employment Growth from Initial to survey time	Coefficients	Robust Std. Error	T-ratio	P-value
ln(initial size)	-0.057	0.113	-0.51	0.614
ln(age of business)	0.019	0.227	0.09	0.932
Have business license	0.022	0.306	0.07	0.943
Owner human capital				
ln(previous experience, in months)	0.060*	0.026	2.30	0.024
Education level of owner	-0.094	0.127	-0.74	0.462
Business training of owner	0.201	0.497	0.40	0.687
Demographic factor				
Male owned business	0.388	0.344	1.13	0.263
Owner married	0.223	0.227	0.99	0.327
ln(owner age)	-0.362	0.166	-2.17	0.033
Credit access variable				
Have formal credit access	-0.252	0.349	-0.72	0.471
Have inform credit access	0.220	0.459	0.48	0.033
Sector	0.099	0.135	0.73	0.467
Market area	0.199	0.174	1.15	0.254
_cons	0.397	0.749	0.53	0.598
N	100			
R-squared	0.1630			
F-test	F(13, 86) = 1.64			

*represent 5% level of significance

Appendix C

Determinants of sole proprietorship types of MSE (firm) growth, empirical regression results of the survey

Dependent variable Annual employment Growth from Initial to survey time	Coefficients	Robust Std. Error	T-ratio	P-value
ln(initial size)	-0.048	0.065	-0.74	0.463
ln(age of business)	-0.269	0.230	-1.17	0.247
Have business license	0.187	0.216	0.87	0.385
Owner human capital				
ln(previous experience, in months)	-0.001	0.022	-0.06	0.951
Education level of owner	-0.077	0.099	-0.78	0.439
Business training of owner	-0.185	0.165	-1.12	0.266
Demographic factor				
Male owned business	0.119	0.134	0.89	0.379
Owner married	0.367	0.259	1.42	0.161
ln(owner age)	-0.187	0.176	-0.106	0.292
Credit access variable				
Have formal credit access	-0.310	0.329	-0.94	0.349
Have inform credit access	-0.538	0.373	-1.44	0.154
Sector	0.245 *	0.108	2.27	0.027
Market area	0.125	0.137	0.91	0.365
_cons	1.117	0.575	1.94	0.056
N	80			
R-squared	0.2769			
F-test	F(13, 66) = 0.78			

*represent 5% level of significance

Appendix D

Determinants of Co-operative types of MSE (firm) growth, empirical regression results of the survey

Dependent variable Annual employment Growth from Initial to survey time	Coefficients	Robust Std. Error	T-ratio	P-value
ln(initial size)	1.328*	0.590	2.25	0.065
ln(age of business)	0.251	0.291	0.86	0.421
Have business license	2.562*	0.811	3.16	0.020
Owner human capital				
ln(previous experience, in months)	-3.125 *	1.233	-2.54	0. 44
Education level of owner	0.188	0.278	0.68	0.525
Business training of owner	1.417*	0.715	1.98	0.095
Demographic factor				
Male owned business	2.858*	0.843	3.39	0.015
Owner married	0.406	0.326	1.24	0.260
ln(owner age)	2.818	2.322	1.21	0.271
Credit access variable				
Have formal credit access	-2.983*	0.935	-3.19	0.019
Have inform credit access	1.574	0.748	2.10	0.080
Sector	-3.285*	0.865	-3.80	0.009
Market area	1.621	1.500	1.08	0.321
_cons	-14.064	7.975	-1.76	0.128
N	20			
R-squared	0.963			
F-test				

*represent 5% level of significance

Appendix E

Mathematical Derivation of firm growth equation

- The firm growth relationship is given by

  $S_{t+1} = (G(A_t, St))^d (S_t)\, e_t$ ---------- (1)

  Where
  - t – time
  - t'- current time period
  - t - initial time period
  - d = t'-t ,t'>t
  - t'-t = age of the business=d
  - e – lognormally distributed error term with possibly a non constant variance
  - A - age of the firm
  - St – current size of the firm

- By transforming equation (1) in to logarithmic form can give us :-

  - $\ln St+1 = \ln((G(A_t,S_t))^d (S_t)\, e_t)$
  - $\ln St+1 = \ln G(At,St)^d + \ln St + et$
  - $\ln St+1 - \ln St = d\ln G(At,St) + + et$
  - $\frac{\ln St+1 - \ln St}{d} = \frac{d\ln G(At,St)}{d} + et$
  - $\frac{\ln St+1 - \ln St}{d} = \ln G(At,St) + et$ ----------(2)

- By taking the second –order expansion of lnG(At,St) can gives us :-

  - $\ln G = b_0 + b_1 \ln S + b_2(\ln A) + b_3(\ln S)^2 + b_4(\ln A)^2 + b_5(\ln S)(\ln A) + U$ ---(3)

- By rearranging equation (2) and (3) and considering some control variables can give us :-

  - $\frac{\ln St+1 - \ln Sto}{A} = b_0 + b_1 \ln S_{to} + b_2(\ln A_t) + \sum r_i x_i + U$ ---------- (4)

Where

S_{t+1} - Represents firm's current size
S_{to} - Represent firm's initial size ---$S_t = S_{to}$
A - Represent firm's age
X – Represent other control variable
U – Represents the normally distributed error term with mean zero and a non Constant variance

Appendix F

The surveyed questionairs of the study

Thank you in advance for filling this questionairs or for your cooperation for interview. The questioner will be used for academic purpose only and the confidentiality of your personal information and your business will be kept secret. Your cooperation will have a tremendous effect for the livelihood of micro and small enterprise.

Part I. individual related factors

1) Owner gender:-
   A. male ☐
   B. Female ☐
2) Owner age, specify it in number _____
3) Education:-
   A. Illiterate ☐
   B.Read only ☐
   C.Write only ☐
   D.Read and write ☐
   E.Elementary school (1-8) ☐
   F.High school (9-12) ☐
   G.Vocational training ☐
   H. Some college ☐
   I. University ☐
4) Martial status:-
   A. Married ☐
   B.Unmarried ☐
   C. Divorced ☐
5) Have you take business training? A.Yes ☐ B.No ☐
6) If your answer to question number 5 is yes, how much time do you take for training?
   A. Less than a month ☐ B. Between 2 and 6 month ☐
   C. Between 7 and 12 months ☐ D. More than one year ☐
7) Past history of the job of the owner
   Previously, do you have job? A.Yes ☐ B.No ☐
8) If your answer to question number 7 is yes, how long you stay on it? Specify
   A. In months ☐ B. In years ☐

Part II. Firm related factors

1) Where is the location the firm/business?
   A. At commercial centre ☐ B. Out of the commercial centre ☐
2) What type of business is it?
   A.Trade ☐ B. Service ☐ C. Manufacturing ☐
3) How long the firm operates? Or what is the age of the firm?
   Specify it:- A. In years ☐ or B. In month ☐
4) What type of firm in terms of ownership?
   A.Sole proprietorship ☐ B. Partnership ☐ C. cooperatives ☐
5) Do you utilize local resources? A. Yes ☐ B.No ☐

6) How much would be the percentage share of your usage of local raw material?
Specify in number----------

7) Do you have problem of supply of raw materials? A.Yes ☐ B.No ☐

8) Do you have the plan to expand your organization? A.Yes ☐ B.No ☐

9) Do you have enough working place or land to expand your organization?
A.Yes ☐ B.No ☐

10) Do you have enough capital to expand your organization? A.Yes ☐ B.No ☐

11) Do you have enough knowledge to expand your organization? A.Yes ☐ B.No

12) Do you think that there is sufficient market for your products?
A.Yes, it is sufficient ☐ B. It is some how good but not sufficient ☐

13) If your answer to question 12 is no, what do you think is the reason behind?
A The working place is not commercial area ☐
B. Because of The inability of the buyer ☐
C. The product you sold has no demand ☐ D. Other reason ☐

14) Among the problems you face to expand your organizations are:-
A. Lack of sufficient market ☐
B.Lack of working premise ☐
C. Lack of knowledge ☐
D.Lack of capital ☐ E.Unsuitability of the type of work ☐

15) Does the firm have a licence? A. yes ☐ B. No ☐

16) How many employees at the start of the business?
A. Total employees _____ B. Female _____ C.Male _____

17) How many employees at the time of the survey?
A. Total employees ☐ B.Female ☐ C.Male ☐

18) The status of the employees :-(specify in number)
A. Unpaid / Family members_____ B.Paid workers_____
C. The average amount of salary/wage paid per worker per month In terms of Money----------

19) What was the source of finance for establishing this firm?
A.Banks ☐
B.Microfinance institution ☐
C.Trade credit ☐
D.Friends/relative ☐
E.Local money money lenders ☐
F. Equb (traditional way of saving and rotating money) ☐ G.Own saving ☐

20) How Much amount of capital the businesses possess?
At the start of operation (when the business set up) ----------

21) How much amount of capital the businesses possess?
At the time of the survey--------

22) How much income/profit sale your businesses generate? (Specify it per month)
A. At the start of the business____ B.At the time of the survey____

23) Please you can forward any comments or suggestions ----------
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Part III factors related to cooperative type of MSE

1) How long the firm (the cooperative) operates? Or what is the age of the firm?
   Specify it:- A. In years ☐ B.In month ☐
2) The member of cooperative interms of number
   A.Total no_____ B.Male no____C.Female no____
3) Dose the cooperative employ extra labourer? A.Yes ☐ B.No☐
4) If your answer to question no 3 is yes, how many labourers it employs?
   Specify in no_____
5) The age situation of cooperative members:-
   A. Average age_____ B.The range of age from_____to____
6) Educational status of the members of the cooperatives in terms of no:-
   A. No of Illiterate ☐
   B.No of Read only ☐
   C. No of Write only ☐
   D. No of Read and write ☐
   E. No of Elementary school (1-8) ☐
   F. No of High school (9-12) ☐
   G. No of Vocational training ☐
   H. No of Some college ☐
   I. No of University ☐
7) Martial status of the member of cooperative
   A. The no of unmarried_____B.The no of married_____C. The no of widowed__
8) The working condition of the member's before joining the cooperative
   A.No of unemployed___ B.Those employed in their own private institution_____
   C. Those employed other institution____ D.No of young_____
9) Members who have job, why they left their previous job?
   A. Because of low income_____ B.They want working in cooperative_____
   C.They want to upgrade their skill_____D.Other reason_____
10) Members who previously have a job, how long they stay on their previous job?
   A.In terms of month_____ B.In terms of year _____
11) Do you have infrastructure (road, water, electricity etc) insufficient manner?
   A.Yes, it is sufficient ☐ B.There is some access but not sufficient ☐
   C. No at all ☐
12) Where is the source of capital for the cooperative?
   A. Microfinance ☐
   B.BanksRelatives/friends ☐
   C.Money lender ☐
13) Do you think the money gained from banks or microfinance sufficient for the cooperative to run properly? A.Yes☐ B.No ☐
14) Is there sufficient market for the product of the cooperative?
   A.Yes it is ☐ B.Yes it has but not sufficient ☐
15) If your answer to question 14 is no, why?
   A. B/c of the location of Business ☐ B.b/c of the less potentiality of customers☐
   C.The product is not wanted one☐ D.Other reason ☐
16) Do you have sufficient land or working place to expand the organization?
   A.Yes ☐ B.No☐
17) Do you have sufficient money to expand the business? A.Yes☐ B.No ☐

18) Do you have shortage of raw material? A.Yes ☐ B.No ☐

19) Among the problem that hinder the business not to operate at its full potential is that

A. Market problem ☐

B.Lack of raw material ☐

C.Working place ☐

D.Lack of know how ☐

E.The nature of the business ☐

20) Do you utilize local raw material?

A.Yes ☐

B.No ☐

21) How could you perceive the support provided to your business by wolkite town MSE agency? A.It is good and appreciable ☐

B. It is good but not adequate ☐

22) Have you taken business training? A.Yes ☐ B.No ☐

23) If your answer to question no 22 is yes, when did the member of the cooperative took training? A. Before the start of the business ☐

B.During the operation of the business ☐

24) If your answer to question no 22 is yes, how many members of the cooperative have? taken training? A.Total number ☐

B.Number of male ☐

C.Number of female ☐

25) If your answer to question no 22 is yes, how long they took training?

A. Interms of day____B.Interms of month____C.Interms of year_____

26) How much the monthly revenue of the cooperative? Interms of birr----------

27) How much income the members of the cooperative get per month? Interms of birr----

28) How much initial amount of capital the cooperative borrows? Interms of birr----------

29) How much amount of capital the cooperative possess at the time of the survey? Interms money----------

30) Forward any comments or suggestion that you have ----------

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Declaration

The project is my original work. It has not been presented for a degree in any other University and that all resources of materials used for the project have been duly acknowledged.

Written by:

Abdulaziz Abdulsemed

Signature

Confirmed by:

Syed Hasan Qayed (Phd)

Signature