FACTORS AFFECTING PERFORMANCE OF MICRO AND SMALL ENTERPRISES IN SAYILEM DISTRICT

A Thesis Submitted to the School of Graduate Studies of Jimma University in Partial Fulfillment of the Requirements for the Award of the Degree of Master of Economics (Economic Policy Analysis)

By

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JIMMA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

MASTERS OF ECONOMICS PROGRAM

JUNE 07, 2021

JIMMA, ETHIOPIA

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CERTIFICATE

This is to certify that the thesis entities "Factors affecting the Performance of Micro and Small Enterprises: A study on selected Micro and Small Enterprises (MSEs) in Sayilem district", Submitted to Jimma University for the award of the Degree of Master of Economics (Economic Policy Analysis) and is a record of bona fide research work carried out by Mr. Girma Metachew Megi, under our guidance and supervision.

Therefore, we hereby declare that no part of this thesis has been submitted to any other university or institutions for the award of any degree of diploma.

Main Adviser's Name	*Date*	*signature*
_____	_____	_____
Co-Advisor's Name	*Date*	*signature*
_____	_____	_____

DECLARATION

I, declare that this study entitled "Factors Affecting the Performance of Micro and Small Enterprises: A study on Selected Micro and Small Enterprises (MSEs) in *Sayilem* district", has been Carried out by me under the guidance and supervision of M/r Alemu Ayele (PhD-fellow) and Miss Shabu Abdulbari (MSC).

The thesis is original and has not been submitted for the award of degree of diploma any university or instructions.

Researcher's Name	Date	Signature
_____	_____	_____

ABSTRACT

Unemployment and low income are some of the present problems in urban cities of Ethiopia. The government of Ethiopia has formulated a policy to mitigate the problem wholly by induce MSEs. Basically, MSEs are set up with the goal of poverty alleviation. It is also stiff base for medium and large enterprise. As a whole MSEs are seen as an essential backbone and springboard for economic growth, job creation, poverty reduction and social progress in both developed and developing countries.

However, the performance of MSEs in Sayilem district is low. So, this study was done to investigate the determinants of MSEs Performance in study area using descriptive statistics and econometric model of binary logistic regression and multiple linear regression model with the help of (Stata-14). Both primary and secondary data were also employed in getting the necessary information for the analysis of the study.
A total of 148 sample respondents were identified using multiple stage sampling technique. The result of the study shows that majority of the MSEs have been a recent establishment and faced challenges of inadequate initial capital, government policies and regulation related factors, limited infrastructure facility, unfair market competition, lack of training, limited access to credit, and lack of know-how and skills to use technology. Furthermore, the study also noted that most of the operators were found to be young labor force of male operators and less participation of female operators than male.
In general, the main objective of this study is to analyze factors that affect the performance of MSEs in Sayilem district. Due to the main finding of econometric result of binary logistic regression gender of the operator, education level of the operator, access to credit, access to market, government policies and regulation and amount of initial capital were found to be significant factors determining performance of MSEs. Similarly econometric result of OLS also shows that Government policy and regulation, access to credit, access to training and level of market competition to be significant factors determining performance of MSEs. Therefore, to improve the overall performance and capacity of MSEs for generating profits in particular, creating job opportunity thereby and alleviation poverty in general, governments, policy makers, donors, financial institutions and operators of MSEs should pay attention on overcoming the major constraints facing performance of MSEs in the study area.

***Key terms**: Factors, Performance, MSEs and Sayilem district.*

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LIST OF ACRONYMS

BDS	Business Development Service
CSA	Central Statistical Agency
CED	Committee for economic development
EMSEDS	Ethiopian Micro and Small enterprise Development Strategy
FMSEDA	Federal Micro and Small Enterprise Development Agency
FDRE	Federal Democratic Republic Agency
FRMSEDA	Federal and Regional Micro and Small Enterprise Development Agencies
FMSES	Federal Micro and Small Enterprise Strategy
FRMSE	Federal and Regional Micro and Small Enterprise
FMSIDA	Federal Micro and Small Industrial Development Agency
FUDPE	Federal Urban Development of Ethiopia
GDP	Gross Domestic Product
EMTI	Ethiopian Ministry of Trade and Industry
EPRDF	Ethiopian People Revolutionary Democratic Front
ERRP	Emergency Recovery and Reconstruction Program
ETB	Ethiopian birr (Local currency)
GDP	Gross Domestic Product
GEM	Global Entrepreneurship Monitor
GTP	Growth Transformation Plan
ICT	Information Communication Technology
ILO	International Labor Organization
FMSEDA	Federal Micro and Small Enterprise Development Agency
GEM	Global Entrepreneurship Monitor
K/Z/F/E//D/P/P/D Department	Kaffa Zone Finance and Economic Development Plan and program
K/Z/F/E/D/S/E/D Department	Kaffa Zone Finance and Economic Development Socio Economic

LDCs	Least Developed Countries
LEs	Large Enterprise
LED	Large Enterprise Development
MFIs	Micro-Finance Institutions
MOFED	Ministry of Finance and Economic Development
MOTI	Ministry of Trade and Industry
MSEDS	Micro and Small Enterprise Development Strategy
MUDC	Ministry of Urban Development and Constructio
NGOs	Non-Governmental
NO	Number
PASDEP	Plan for Accelerated and Sustained Development to End Poverty
RMSEDA	Regional Micro and Small Enterprise Development Agencies
RMSES	Regional Micro and Small Enterprise Strategy
SDPRP	Sustainable Development and Poverty Reduction Program
SNNPS	South Nations, Nationalities and People's State
STATA	Statistics and Data
UNIDO	United Nations Industrial Development Organization
USA	United States of America

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CHAPTER ONE

1. INTRODUCTION

1.1. Background of the study

The issue of Micro and Small Enterprises (MSEs) has received a great deal of attention as priority areas that are crucial for stimulating economic growth in both developed and developing countries. This has substantial growth in both public and private enterprise in the development of economic growth (Berihu, 2006). In relation to this Kayode and Afred (2014) have also pointed out the attention given to MSEs as "Globally, governments are giving attention to development of MSEs".

Thus, according to Kayode and Afred (2014) argument, giving a due attention development of MSEs is fighting poverty, creating jobs, mobilize local resource, reduce migration from rural to urban, and generating income. Thus, African countries have been faced challenges to fight against unemployment and poverty. This shows that giving attention to MSEs would have implication for eradicating poverty and unemployment.

MSEs are widely recognized and accepted for their contribution in terms of poverty reduction, employment creation, and income generating. As a result, MSEs become a great concern to many government policy makers and researchers globally because of their realization of economic contribution to GDP and tool of poverty reduction (Abraham, 2013; Admasu, 2012; James et al, 2013; Tassew et al, 2015). Therefore, having recognized the contribution made by MSEs, direct intervention and support of government and academician researchers is crucial to enhance the performance of MSEs.

Apart from MSEs' contribution to employment creation, income generating, and poverty alleviation, MSEs have also found to play a key role in stimulating other sectors such as trade, construction, services and agriculture (ILO, 2006; Abraham, 2013; Kayode and Afred 2014).

There is also a common interest among economic experts, scholar, practitioners, and policy makers to identify what factors affecting performance of MSEs because they are considered to be the back bone of any economy and the engine for economic and employment performance (Donglin, 2009; Kayode and Afred 2014; Alexander, 2014; Berihu et al, 2014). In addition, Alexander, (2014) in his study noted that sustainable local economic development and poverty reduction through creation of job opportunity have been realized when governments of developing countries designed MSEs' based policies.

Tassew et al (2015) in their study on associated factors of youth owned MSEs survival have also thrown light on the importance of MSEs as a principal source of growth, generating income, and employment and are at the heart of an economic activity and development for developing countries. Therefore, in recognition for MSEs Contribution, government intervention and massive support to the sector can facilitate economic growth, creating long term jobs, and income generating thereby poverty reduction. For this reason, studies aiming at investigating determinants of MSEs' performance have become important (James et al, 2014).

In Ethiopia MSEs has neglected for long until a shift was made to market economic system. However, especially following the country's shift to the market economic system, the government as well as non-governmental organizations (NGOs) and donors have shown interest in the area to address the problem of unemployment. This shift to market economy system would mean the strengthening of the private sector which fosters the development of MSE in Ethiopia (Taddese, 2001; Endashaw, 2005; Mesfin, 2015; Mehari, 2016).

Recognizing the significance of MSEs, the Ethiopia government designed the micro and small enterprises (MSEs) development strategy to promote the micro and small enterprises development by the issuance of National Micro and Small Enterprises Strategy in 1997/2011 and the establishment of the Federal Micro and Small Enterprises Development Agency to pull the country out of its problems of poverty and unemployment.

The promotion of this sector is justified on the grounds of enhancing growth with equity, creating long-term jobs, providing the basis for medium and large enterprises and promoting exports.

The strategy puts a means to support the MSEs through the provision of infrastructure, technology, training and working space, financial facilities, supply of raw materials, and access to market because MSEs are commonly accepted as the right solution to reduce urban unemployment and hence reduce poverty (Mulu, 2009; Abraham, 2013; Berihu et al, 2014). The efficacy of such interventions, however, depends on identifying key factors that foster or inhibit development by MSEs and their impact on employment is crucial in order to formulate effective policies to enhance performance of MSEs (Mulu, 2009; Abraham, 2013).

Having recognized their importance MSEs in Ethiopia are, however, confronted with several factors that affect the performance of MSEs. The major factors include financial problems, lack of qualified employees; lack of proper financial records, marketing problems and lack of work premises, training and technical know-how, government policies and regulations (Berihu et al, 2014; Mbugua et al, 2014; Mehari, 2016).

Sayilem district in particular there is expansion and establishment of MSEs activities to create job opportunities, generating income, and poverty alleviation. Thus, the assessment of the performances of MSEs and the factors affecting the potential performance of MSEs is therefore essential. Studies on their performance in this critical sector (MSEs) are extremely limited. In this regard, there is no previous studies were available in Sayilem district. Hence, this study is carried out to assess determinants of MSEs performance in Sayilem district.

1.2. Statement of the problem

There is a common consensus among developed and developing countries that MSEs can become effective creators of employment, innovation, and income generation and can drive economic growth and thus play a crucial role in fighting against poverty (Mesfin, 2015; Francis and Dedan, 2015).

The fact that the Ethiopian government is making efforts of policies and strategies aimed at promoting development of MSEs, it is doubtful that all MSEs are successful in serving the purpose that they are intended (Abraham, 2013; Berihu et al,2014; Tassew et al, 2015). There is also a common consensus among researchers (Abraham,2013; James, 2013; Berihu et al, 2014; Asma Benzazoua, 2015; Mohammed et al, 2015) that performance of MSEs depends on a

number of factors which includes; access to training, entrepreneurial skills, access to security, access to promotion, sufficient amount of finance, cost of input, education, gender, access to market, access to credit, access to business information, access to appropriate technology, access to quality of infrastructure and others have been identified as major determinants affecting the performance of MSEs. This implies that the performance of MSEs depends on internal and external factors that require investigation in addressing the challenges facing MSEs Performances though the government has made efforts in promoting them.

Admasu, (2012) in his study on factors affecting performance of MSEs in Arada, Addis Ababa used multiple linear regression (OLS) in making data analysis using eight variable factors of politico-legal, working premises, technology, infrastructure, marketing, finance, management and entrepreneurial skill. The work of Admasu has looked at determinants of MSEs Performance using more of the external environment. However, it has not been given attention to the internal factors like age of the operator, gender, adequacy of startup capital, education of the operators that could have a significant impact on the performance of MSEs in the study area of Addis Ababa, Arada sub city.

Also, he has not given attention on different sectors, like rural agriculture, merchandize and retailer shop, but only focused on manufacturing sectors particularly textile and garment, wood and metal working and food processing. Hence, in consideration of the work of Admasu, the study has included both internal and external factors. The binary Logit regression model was used in finding the factors affecting performance of MSEs from different integrated target sectors.

Abraham (2013) used econometric model of logistic regressions on performance of MSEs and its determinants in Hosana using age of the enterprise, age of the operator, educational level, number of employees, initial capital, skill of operator, experience of the manager, access to training and access to market variables.

A study done by Mehari (2016) on factors affecting the performance of MSEs.in Kirkos Sub City Addis Ababa, Ethiopia with the objective to assess the main factors that are mostly affecting performance of MSEs. However, the findings of the study were analyzed only using descriptive statistics.

He didn't use regression analysis to show the strength and direction of the association between the variable factors access to credit, working premises, marketing issues, record keeping practice and access to bank account affecting the performance of MSEs.

Tiruneh (2011) researching on analysis of success factors of MSEs in Addis Ababa with the objective to investigate the role of age of the operator, educational level of the owner, management experience, industry experience, marketing skill, plan, record keeping and financial control, and forms of ownership variables on performance of MSEs in the study area using linear regression model. However, the independent variables taken in to consideration do not show any statistical significance with the performance of MSEs. Moreover, the independent variables were also limited to more of internal ones. Therefore, considering this, useful significant external factors (access to market, access to training, government policies and regulations, access to credit, and level of competition) are included in assessing the performance of MSEs.

In closing, many studies have looked on performance of MSEs and its determinants in Ethiopia in their respective specific areas and covered specific objectives using more of the internal factors. Moreover, the majority of the study carried out on the performance of MSEs was biased outside of the Kaffa zone in general and Sayilem district in particular there is a research gap. Because there is no related study follow-up in this study are. Even though establishment of MSEs increases in number from time to time with the aim to provide job opportunity, generating income and alleviating poverty, but there are many problems incorporated due to increasing performance of MSEs.

Their performance status (enterprises established by government support) is low as it was indicated by Sayilem district MSEs development office report (2021 E.C) has emerged as thoughtful concern to conduct a research to identify and investigate factors affecting performance of MSEs was needful.

If attention is not given to find out factors affecting performance of MSEs, the expected performance of MSEs and their contribution to income generating, employment opportunity there by poverty reduction cannot be addressed in the study area. Hence, in this study, the effort is made to assess and identify determinant of micro and small enterprises performance in Sayilem district.

To crumple fully information for superlative factors identification, this study gives focus of attention on:

- Nine internal and external independent variables (Age, Gender, Education, Amount of initial capital, Access to credit, Access to market, Access to training, Level of market competition and Government policy and regulation) as major factors.
- Different integrated target sectors (rural agriculture, merchandize and retail shop and wood and metal work).
- Methodologically binary Logistic regression and multiple liner regression (OLS) model analysis were used to establish the relationship between dependent and independent variables.
- Findings of the study were analyzed both using descriptive statistics and regression analysis to show the strength and direction of the association between the variable factors.
- Independent variables taken in to consideration to show that statistical significance with the performance of MSEs.
- The performance of MSEs were measured by:
  - Profit is dependent variable measured by (annual total sales minus annual total costs).
  - Labor growth is dependent variable measured by (Current employment size minus initial employment size over enterprise age).

1.3. Research questions

- What are the major factors that affect performance of MSEs?
- What is the performance status of MSEs in generating profits?

1.4. Objectives of the study

1.4.1. General objective of the study

The main objective of this study is to analyze factors that affect the performance of micro and small enterprise in Sayilem district.

1.4.2. Specific Objectives of the study

- To describe the characteristics of economic, institutional and demographic variables that influence performance of micro and small enterprise in Sayilem district.
- To access main factors influencing the employment size in micro and small enterprise in Sayilem district.
- To identify the major factors that influences the profit of micro and small enterprise in Sayilem district.
- Recommend possible solution to alleviate the problem of MSEs.

1.5. Research Hypothesis

With the help of appropriate empirical data on the factors affecting the performance of MSEs, this study test the following hypothesis:

- H1: economic, institutional and demographic variables have no significant influence on labor growth in Sayilem district.
- H2: economic, institutional and demographic variables have no significant influence on profit of SMEs in Sayilem district.

1.6. Significance of the study

There are many MSEs in study area. Their potential to create employment and to generate income makes them crucial economic instrument. Hence, adequate and relevant today status of MSEs information were needful for some other stakeholders.

This study is significant in that it examines and describes factors affecting performance of MSEs to assist the government policy makers, donors, and other interested agencies as it recommends that practical measure to overcome the constraints facing performance of MSEs.

In addition, the study provides significant information and evidence to owners/operators of MSEs themselves. Moreover, it is hoped that the findings of this study is important addition to existing knowledge and conducting further research for academicians and consultants who may be focusing on similar topics and issues, particularly in identifying factors affecting performance of MSEs performance of MSEs.

1.7. Scope of the study

The study was limited to Sayilem district that is why the inclusion of the region or the zone as a whole in the study is found to be unmanageable for the study because of shortage of finance, time, and materials.

The study is concerned only with micro and small enterprises established by government intervention and privately established which were actually registered by Micro and Small Enterprise Development Office in Sayilem district. However, there are a number of self-initiated and unregistered informal micro enterprises that employ large proportion of the poor but they were not being included in the study because they didn't have a fixed working place.

1.8. Structure of the thesis

The thesis is organized into five chapters. The first chapter deals with introduction. Chapter two is concerned with the review of related literature including theoretical and empirical literature. Chapter three contains the methodology followed by description of the study area, research design, sample size and sampling procedure, data sources and type, method of data collection, methods of data analysis, and econometric model specification. Chapter four presents the results and discussion and the last chapter five contains the conclusion, recommendations and for future research direction.

CHAPTER TWO

2. REVIEW OF RELATED LITERATUR

2.1. Theoretical Review

This chapter attempts to present and review some global findings as well as research works in the context of Ethiopia related to MSEs Performance of different theoretical literature and empirical studies in the areas of MSEs factors that affect its performance in Ethiopia and elsewhere. Thus, the study examines the relevant available materials so as to have an insight in to the work done in this area in the past. This is important to make comparison for the purpose of formulating ways and means that enable one to analyze determinants of MSEs in Sayilem district.

2.1.1. Concepts and definitions of MSEs

There is no single and universally acceptable definition of small businesses Kayanula and Quartey, 2000). This is so because the criteria and ways of categorizing enterprises as small organization vary from country to country depending essentially on the country's level of development. Among the criteria used to define enterprises, the most common and widely used ones include the number of paid employees by the sector, the amount of paid-up capital, total assets, volume of sales, and value added or net worth. (Admasu, 2012; Bereket, 2010; Munira, 2012; Berihu et al, 2014; Mehari, 2016).

This is because of the amount of capital invested and the number of people employed in operating and implementing MSEs and the level of technology vary from one country to another. In some countries MSEs labeled based in the number of employees and others on capital invested. Hence, most definitions of MSEs depend up on the policy makers (financiers, labor officers, traders and service personnel's) of different countries use for measurement the common criteria of (number of employees, revenue, profitability, net worth, etc.).

A definition of MSEs in the industrialized world would differ from how MSEs are defined in the emerging economies. An enterprise categorized as micro enterprise in USA may be treated as medium enterprise in Africa or somewhere in Asia for the fact that the definition of MSE is relative to economic development. The annual turnover figures also differ from country to country, depending among other factors on population size and stage of economic development. From this we can learn that there is no common definition of MSEs and that the definitions vary from country to country depending largely on the size of the economy, the levels of development, culture and population size of a country involved (Bizusew, 2015; Enock, 2010; Menna, 2013). In support to the view of Enock, Menna and Bizusew, Berihu (2006) has also pointed out that lack of consistent to define MSEs has evidently led to the confusion and failure to distinguish between one segment and another and this can have significant implication on the structure of intervention and promotional support that could be provided to the sector.

2.1.1.1. MSEs as the Global Context

United Nations Industrial Development Organizations (2002) gives alternative definition for developing countries as small businesses. The United States of America, the Small Business act issued in 1953 stated that, small business is the one which is independently owned and operated. The act also further stated that, number of employees and sales volume as guideline in defining small business In the same country, a committee for economic development (CED) has explained that small business is characterized by at least two of the key features: management is independent (usually the managers are owners), capital is completed and an individual or small group holds ownership and the area of operation is mainly local (workers and owners are in one home country).

Table: 2.1. Definition of MSEs as global

Country	Category of industry	Criteria
USA	Very small enterprise	10-499 employees.
France	MSEs	<500 employees
Indonesia	Micro enterprise	<20 employees.
	Small enterprise	20-99 employees.
Ghana	Micro enterprise	1-4 employees.
	Small enterprise	5-29 employees.
Kenya	Micro	< 10 employees and < 500,000 ksh annual turnover.
	Small	<50 employees and 500,000-5million ksh annual turnover.
Tanzania	Micro	1-4 employees
	Small enterprises	5 – 49 employees

Source: (hailay, 2003 ;);(Khrystyna, Mirmulstein, &Ramalho, 2010)

2.1.1.2. MSEs as Ethiopia Context

In Ethiopia the idea of (MSEs) development emerged as a promising program in the 1980s.As a result, in November 1997 the published the Micro and Small Enterprise Development Strategy (MSEDS), which enlightens a systematic approach to alleviate the problems and promote the growth of MSEs. Elements of the program included measures in a view to creating an enabling legal structure and streamlining regulatory conditions that hamper the expansion of existing and coming up of new MSEs (MOTI,2007).

Following the publication of MSE development strategic document, the government of Ethiopia set up Federal Micro and Small Enterprise Development Agency (FeMSEDA).

Subsequently, the regional states also developed MSES promotion strategies based on prevailing situation with the Federal Micro and Small Enterprise Development Strategy (FMSEDS) and consequently the states structured Regional Micro and Small Enterprises Development Agencies (ReMSEDAs) to facilitate implementation of the strategies.

In the case of Ethiopia, there is lack of uniform definition at the national level to have a common understanding of the MSEs Sector.

In Ethiopia (MoTI) and (CSA) have defined MSEs separately. According to (MSEs development strategy in 1997), MoTI uses the definition of capital investment, while the CSA uses employment and capital intensive(MOTI,2007).

- **MSEs According to MOTI**

Micro enterprises are those businesses enterprises, in the formal and informal sector, with a paid-up capital not exceeding Birr 20,000. The Small enterprises are those business enterprises with a paid-up capital of above Birr 20,000 and not exceeding Birr 500,000.

- **MSEs According to CSA**

CSA categorizes enterprises in to different scales of operation on the size of employment and the nature of equipment. The micro enterprise category is subdivided in to informal sector operations and cottage industries: Cottage and handicraft industries are those establishments performing their activities by hand and using non-power-driven machines. The informal sector is defined as house hold type establishments or activities, which are non-registered companies and cooperatives operating with less than 10 persons. Small enterprises are establishments of employ less than ten persons and using motor operated equipment are considered as small-scale manufacturing enterprises. All enterprises employing ten or more workers are grossly considered as medium and large enterprises.

- **Improved Definition of MSEs in Ethiopia**

Due to gathered experience and identified gap; MSE's are categorized into industrial and service sectors and also the definition was improved (MSEs Strategy regulation article, 2011). Under industrial sector (manufacturing, construction, and mining) micro enterprise, are defined as an enterprise that operates with 5 peoples including the owner and/or their total asset is not exceeding birr 100,000. Under service sector (retailers, transport, hotel and tourism, ICT and maintenance service) micro enterprises, are defined as an enterprise that operates with 5 persons including the Owner of the enterprises and/or the value of total asset is not exceeding birr 50,000.

Under industry sector (manufacturing, construction and mining) small enterprises, are defined as operators with 6-30 persons and/or paid-up capital of total asset Birr 100,000 and not exceeding Birr 1.5 million.

Under service sector(retailer transport, hotel and tourism, ICT and maintenance service) small enterprises are defined as operates with 6-30 persons and/or total asset or a paid up capital is with Birr 50,001 and not exceeding Birr 500,000.(Federal Democratic Republic of Ethiopia(MSEs strategy, 2011).

Table: 2.2. Improved definition of MSEs as Ethiopia Context

Level of the enterprise	Sector	Human power	Total asset
Micro enterprise	Service	≤5	≤ Birr 50,000 ($ 2,500)
	Industry	≤5	≤ Birr 100,000 ($ 5,000)
Small enterprise	Service	6-30	≤ Birr 500,000 ($ 25,000)
	Industry	6-30	≤ Birr 1.5 million ($75,000)

Source: Ethiopian Micro and Small Enterprise Development Strategy (2011)

2.1.2. MSEs Strategy in Ethiopia

Enterprise promotion efforts in Ethiopia have traditionally focused on urban based and MSEs in the 1960s and early 1970s, a department within the Ministry of Industry and Tourism (MIT) responsible for coordinating promotion activities which basically consisted of providing training on business management cited in(Admasu(2012). Teshme (1994), pointed that the focus of government policy was to lay foundation of basic administrative institutional infrastructure of the government during the 1940'sand 1980's, in order to consolidate the gains of reforms to accelerate the process of industrialization. As a result of which several reforms related to the development of MSEs were made during this period.

The period 1974 to 1991 started with socialist proclamations and nationalization of businesses and firms throughout the country. By proclamation No26/1975 the government implemented these socialist proclamations and ended up owning and controlling the means of production "the commanding heights of the country''.

Proclamation No.26/1975 classified all economic activities in to private government leaving room to join undertakings by government and foreign investors. The proclamation crippled private sector development in the country.

The process of down scaling the role of private economy continued and according to proclamation No.76/975, acquisition of businesses was restricted to single license and capital ceiling set at 300,000 birrs for wholesale trade, 200,000 for retail trade and 500,000 for industrial establishments. Few services producers' cooperatives were formed, their members increased and then decreased through bankruptcy, lack of imported imputes, and eventual closure and at the same time private investment in the sector virtually ceased(MUDC,2013).

The new regime led by Ethiopian People Revolutionary Democratic front (EPRDF) immediately proclaimed the Emergency Recovery and Reconstruction Program (ERRP) and started a program of private sector development. In 1991, the ERRP, with the support of the World Bank and the international community to bring about economic stabilization. Launched public sector reform, private and market economy development. Several other supporting proclamations were also issued. One of the measures taken to enhance the operation of MSEs is issuance of licensing and supervision micro financing institutions proclamation in 1996(proclamation No.40/1996). The principal aim of proclamation is to enable MSEs have access to credit facilities counseling service and income generating projects through micro-finance institutions. By building the capacity of MSEs, this legislation provides opportunities and security for the informal sector operations through enhancing legality and formalization.

The adopted Agricultural Development Led Industrialization and private sector development strategy in199.An element of these strategies was focused on MSEs development. Federal Micro and Small-Scale Enterprises Strategy (FMSES) and Regional Micro and Small-Scale Enterprises Strategies (RMSES) were formulated in 1997 with main objectives for exploitation of local raw material, creation of productive job opportunities, adoption of new and appropriate technologies, and enhancement of the development of MSEs which have wide-ranging backward and forward linkages.

At the early 2000's, the World Bank introduced poverty reduction strategy for Less Developed Countries which is in line with the Millennium Development Goals. For Ethiopia, the program has two phases: the Sustainable Development and Poverty Reduction Program (SDPRP) and the Plan for Accelerated and Sustained Development to End Poverty (PASDEP). According to PASDEP, MSEs would get extended basic trainings, upgraded business development services and enhanced market linkages with foreign importers through Federal Micro and Small Enterprise Development Agency (FMSEDA) and Regional Micro and Small Enterprise Development Agencies (RMSEDA) in the planned period.

GTP (Growth and Transformation Plan), which is the past development strategy of Ethiopia (2010-2015), has also given a priority to MSEs development. The GTP has put the MSEs development as one of the seven identified growth pillars of the country. The MSEs to be a development pillar, they have to be formal to get the necessary support. The journey made in the MSEs Strategy of Ethiopia in brief reveals the vastness of the role MSEs in the entire economy has been immense. Some studies in these areas rightly points out the MSEs have been on the front in employment creation, poverty reduction, proliferations of entrepreneurships and thus economic development concurrently(GTP, 2010).

As indicated in the preceding parts, the MSEs development strategy formulated in1997clearly enlightens a systematic approach to alleviate the problems and promote growth of enterprises. The primary objective of the national MSE development strategy has been to create enabling environment for MSE to operate. Thus, it is expected that hundreds and thousands of MSE will, themselves be responsible for the operation, growth and progress of their enterprises given such enabling environment. The specific objectives of the 1997 strategy framework were to: Facilitate economic growth and bring equitable development, create long term jobs, strengthen cooperation between MSEs, Provide the basis for medium and large-scale enterprises, Promote export and Balance preferential between MSEs and bigger enterprises.

On top of providing jobs to the people, the establishment are also hoped to bring about the technological transfer new corporate management skills to the nation. In this strategy also new set of areas are identified as requiring attentions and priority from the government.

These are the manufacturing sector that encompasses the majority of the previously identified areas, the service sector which is relatively new one, construction sector (partly exists in the previous one), the urban agriculture sector (partly exists in expected to substitute imports or are categorized in the manufacturing sector.

The other new and important concept raised in the new MSEs Strategy is about the strategy of growth of the MSEs. According to this strategy the enterprise receive support is depend on their level of growth and is relatively a tailored one. The growth stage stages of MSEs are three in number and they are: the startup stage, the growth stage and the maturity stage.

The strategy further outlined the criteria which qualifies MSEs in to any of these classifications. Following to these, trials will be made to analyze the kinds of problems MSEs face in these three different growth stages and solutions will, independently, be recommended. This appears a very innovative way of dealing with the problems of MSEs unlike some of the policy instruments of the previous strategies, Ministry of Urban Development and Construction (MUDC; 2013)

2.1.3. The Role of Micro and Small Enterprises in Poverty Reduction

MSEs, are also an important force to generate employment and more equitable income distribution to activate competition, exploit niche markets, enhance productivity and technical change, and through all of these stimulate economic development. Therefore, the government of Ethiopia has recognized and paid due attention the promotion and development of MSEs for they are important vehicles to address the challenges of unemployment, economic growth and equity in the country. To this effect, national micro and small enterprise development and promotion strategy was formulated to alleviate the problems and promote the growth of MSEs (Abraham, 2013).

The important role of MSEs in developing countries' economy is increasingly being recognized. MSEs are key players in these economies in providing significant benefits and employment opportunities to the poor societies and also providing essential goods and services to the poorer communities (Berihu, 2006).

In relation to this the United Nations Industrial Development Organization (UNIDO) (2002) as cited in Admasu, (2012) reported; current international thinking is in tune with a view that acknowledges MSEs as a tool to fight poverty in the long run.

As a result, both government and the private sector should be acting for poverty reduction through creating employment opportunities and generating income from the MSEs.

Moreover apart from Admasu; the importance of MSEs has also been confirmed in the work of Berihu 2006) and argued that the role of MSEs to the country's development is significant in terms of employment generating capacity, quick production response, their adopting to weak infrastructure and the use of local resources and as a means of developing indigenous entrepreneurial and managerial skills for sustained industrialization development.

This shows that MSEs are recognized to play a significant role in providing self-employment to the poor people and the self-employment opportunities make the economy more flexible, generate new skills, service and products and add to the nation productive capacity.

Most operators are very poor, and are found at the floor of the economic status. The chance to operate their own business at a very low startup capital, and expand from that point will help them support themselves and their family. This intern will operate to reduce nationwide poverty (Benyam, 2008) cited in (Assefa, 2014).

The work of Kayode and Afred (2014) also advocates to the role of MSEs to poverty reduction and stated as the fight against unemployment has been one of the key challenges facing the African continent in general and since independence. Hence, MSEs have been recognized as a tool of poverty reduction by governments at various levels to promote the development of SMEs in order to reduce poverty; stimulate employment; mobilize local resources; reduce migration from rural to urban area and disperse industrial enterprise more evenly across the country.

Government of less developed countries have been supporting for MSEs through various programs such as credit schemes, entrepreneurship training, technology support etc. (Zaid and Torben, 2003) cited in (Bereket, 2010). Regarding the role of MSEs in poverty alleviation and employment creation, Todaro (2000) as cited in (Bereket, 2010) has also justified MSEs

contributions to employment creation and income generation on global based researches and the informal sector was found to be a major provider of urban jobs in many Asian countries.

Among individual countries for which statistics available, the figure reaches 50 percent in India, 45 percent in Indonesia, 35 percent in Malaysia and 60 percent in Pakistan. In the case of Latin American countries 61 percent in Bolivia, 55 percent in Argentina, 56 percent in Brazil, and 69 percent in Paraguay.

Micro & Small Enterprise Development Program in Ethiopia meaningfully has been given due attention by government since 2004/2005.Thus, by considering the critical role of the sector and the constrained faced by SME operators since 2004/2005 the government of Ethiopia decide to establish SMEs coordinating body at regional level. Accordingly, SMEs development agencies are set up in all regions even sub branch offices at zone/Woreda level. The system helps to support a lot of SMEs and thereby to create job opportunity for unemployed youth and women (Konjit, n, d). Apart from Konjit, Anne Ngima (2014) also offers an equally important view on the attention given to the role of MSEs and argued that MSEs are increasingly recognized as an important engine for employment creation, economic growth thereby poverty reduction.

Understanding the role of MSEs, the Ethiopian government amended SMEs strategy with the objective of alleviating poverty & reducing unemployment and helps the sector to play its pivotal role as a base to medium and large-scale industry. The strategy is implemented all over the country. In amending the strategy a lot of experiences had took from different countries especially from India Japan and Malaysia (Konjit, n, d).

In closing, many studies have been conducted on the performance of MSEs and the current government is also making efforts of promoting development of MSEs but the desired result yet not fully achieved. Therefore, empirical examination of MSEs performance and its determinants was conducted as they are catalyst and tools for generating income, poverty alleviation, and job creation opportunity.

2.1.4. Micro and Small Enterprises for Economic Growth Arguments

There are two polarized thoughts according to Tulus (2006), Agyapong (2010): Anderson et al., (1994) and Staley & Morse (1965) as cited in Admasu (2012) the role and contribution of MSE

to economic growth and poverty reduction; 'Pro' and 'Contra' Arguments. Their works often classified as the classical and modern theories on MSE's development.

The contra arguments predict that advantages of MSEs will diminish overtime and LEs will eventually predominate in the course of economic development marked by the increase in income. In line with these shortcomings and pessimism Admassie and Matambalya (2002) as cited in Admasu (2012), concluded that high level of technical inefficiency reduces their potential output levels significantly. According the research carried out by Biggs (2002) as cited in Admasu (2012) and Mehari (2016) strongly agree the role played by MSEs to minimize the incidence of high-level poverty in most developing economies through employment creation, income generation and multiplier effects on other sectors of the economy.

While, the pro argument views based on experiences from many countries showing the'Contra' arguments, seem to get less supports as many international agencies, including the World Bank (Tulus, 2006). The World Bank (2004) as cited in Tulus(2006), Admasu (2012) and Mehari (2016) gives three core arguments in supporting MSEs in Least Developed Countries (LDCs), which in line with the arguments of the Modern (Pro) paradigm on the importance of MSEs in the economy.

First MSEs enhance competition and entrepreneurship and hence have external benefits on economy wide efficiency, innovation and aggregate productivity growth. Second, MSEs are generally more productive than large enterprises but financial market and other institutional failures and not conducive macroeconomic environment impede MSE development. Third, MSE expansion boosts employment more than large enterprises growth because MSEs are more labor intensive. In relation to this, the World Bank (2004) has also reported that direct government support for MSEs in LDCs help these countries exploit the social benefits from their greater competition and entrepreneurship, and MSEs can boost economic growth and development.

However, the above arguments do not mean large enterprises (LEs) are not important, or MSEs can fully substitute the role of LEs in the economy (Tulus, 2006; Admau, 2012; Mehari, 2016). Even, there are skeptical views from many authors about this World Bank's pro-MSE policy.

Some authors stress the advantages of large enterprises and challenge the assumptions underlying this pro-MSE policy for instance research finding from Biggs and Shas (1998) as cited in Tulus (2006) on MSEs in Sub- Saharan African shows that LEs were the dominant source of employment creation in the manufacturing. Specially, large enterprise may exploit economies of scale and more easily undertake the fixed costs associated with research and development (R&D) with positive productivity effect (Tulus, 2006).

Having evaluated the classical (contra) and modern (pro) arguments and theories on MSEs role to economic growth, this study is based on the modern (pro) theories because MSEs plays a significant role in economic growth and development. Moreover, MSEs are labor intensive they are important for employment growth and poverty reduction.

2.1.5. Micro and Small Enterprises and Economic Development

From the 'modern' theories perspective, MSEs have two important roles to play simutaneously: to promote and accelerate economic growth through the growth of their output contributions to gross domestic product (GDP), and to reduce poverty through employment creation and income generation effects of their generated output growth (Tulus, 2006).In relation to this, Han Min n.d) has also supported that the importance of MSEs are widely acknowledged for their contribution to economic growth in developed and developing countries most notably as a source of employment creation and contribution to GDP.

For instance, a research undertaken by Francis and Dedan (2015) in Kenya on MSEs the sector has found to be contributed to play an important role in the economy of the country's GDP which was increased from 13.8% in 1993 to about 40% in 2008. Additionally, considering MSEs' contribution to economic development, the World Bank (2004) as cited in Tulus (2006) argued that direct government support for MSEs in LDCs help these countries exploit the social benefits from their greater competition and entrepreneurship because MSEs can boost economic growth and development. Francis and Dedan (2015) have also noted the contribution of MSEs to the economic growth through employment creation, income generation, and improved food security is widely recognized.

Thus, because of their greater contribution to economic development thereby creating employment opportunities and generating income the intervention of government and NGOs to support the sector would be crucial and investigating the factors affecting their performance would be essential to enhance their contribution to economic growth.

In market economies, the private sector is the predominant source of economic activity and private enterprises are the major providers of employment, income and essential goods and services. Kirkpatrick (2001) as cited in Solomon (2004) contends that development of a strong and dynamic private sector is crucial to long-term economic growth of a given nation, which in turn is a necessary condition for sustained poverty reduction. The work of Maximilian (2013) recognized that MSEs are considered as the back bone of an economy and they are essential sources of economic growth.

Understanding the contribution of MSEs to the economic growth, the Ethiopian Government has paid considerable attention to the growth and expansion of small enterprises (Eshetu and Eleke 2008; Daniel 2007) cited in (Mesfin, 2015). In particular, the interests of government lie in the expansion of these enterprises into medium and large enterprises, as it is at these stages that their most tangible contributions are realized (Abdullah and Baker 2000; CSA2003; MoTI 1997 (Ibid).

Moreover, Berihu et al (2014) in their study have also reported that in recognition of MSEs' importance, Ethiopia has launched a bold initiative and development policies such as GTP and plans to spur economic growth with the objective to bring and ensure broad based economic development.

Due to its benefits in socio economic development MSEs get the attention of the Ethiopian government for enhancing the local economy (Munira, 2012). In relation to this, AEMFI (2007) as cited in Abraham (2013) supported and justified that MSEs sector has received growing attention both by the government and stakeholders. Some donors and NGOs have close involvement in the efforts to enhance the contribution of micro enterprises to the economy in recognition of their important role of creating employment opportunities and generating income, hence to reduce poverty, the government introduced its first Micro and Small Enterprise Development Strategy in 1997.

MSEs are very important in promoting competitiveness and to bring new products or technics to the market. MSEs increase their productivity mostly through finance. Investments provide access to technologies and helps expand the business, thus ensuring the competitiveness of a company and, by extrapolating, the one of a nation as a whole. It's fair to say that the performances and the development level of a national economy depends a lot on the capacity to create a good environment for MSEs, which can supply quality services and competitive products at a low cost and in quantities that are adjusted to the market (Maximilian, 2013). The contribution of MSEs to economic development is not only in developing countries but also developed countries like the European countries; Netherland for example accounts 95% total of business establishment (Tulus, 2006).

However, in Ethiopia despite its importance, the size of the Ethiopian MSEs sector is less known. Though promoting MSEs Performance is a key target; Berihu et al (2014) during their consultation with key MSEs Implementers including FeMSEDA its current size or performance in terms of its contribution to GDP, employment and export and total manufacturing output was largely unknown. Moreover, given the importance attached to the MSE sector and massive support extended, results were also less known.

In most developing countries, micro enterprises constitute the firms, generating a substantial share of both overall employment and output. Given their significant economic role, one might expect MSEs growth to drive overall increases in output and income levels. In many cases, however, their largest economic contribution appears to be one of maintaining rather than generating new employment and income for the poor (Mead, 2004).

In sum, enhancing the performance of MSEs strengths their considerable role playing and the potential contribution to improvements of income distribution, employment creation, poverty reduction, and industrial development, export of growth, achieving economic and social objectives government intervention and supporting extensively through different programs is crucial.

2.2. Empirical Studies on Determinants of Micro and Small Enterprises

2.2.1. Performance Measure of Micro and Small Enterprises

Performance of MSEs has been the subject and debate to many researchers of extensive and increasing empirical investigation in the business literature. The issue of MSEs performance has been viewed and understood in different ways. Alasad & Ahmed (2007) and Bidzakin (2009) as cited in Admasu, (2012) in their research argued that the most commonly adopted definition of performance is financial growth due to increasing profits and it has been widely adopted by most researchers and practitioners in business performance models.

Furthermore, Brown et al (2005); Xheneti and Bartlett (2012) have also argued a single measure is a reliable indicator of MSEs performance. The scholars have also added that since the basic objective of the firm is to maximize profit, performance of business enterprise should be measured based on profit.

Contrary to the above-mentioned researchers, performance of MSEs can be measured not only in terms of the financial profits but also using different indicators like growth in employment, production level, sales, turn over (Abraham, 2013).

Generally, performance of MSEs can be measured through hybrid financial and non-financial measures. Financial performance measures focus on firms' financial ratio whereas, the non-financial indicators are more of subjective and may include customer service, employee/ owner satisfaction, perceived growth in market share, sales growth (Haber & Reichel, 2005 cited in Abraham, 2013). Hence, measuring performance of MSEs may depend up on the interest and objective of the researcher in including both financial and non-financial or using either of them. Equally in this research performance of MSEs was measured by profit and employment size.

2.2.2. Factors Affecting Performance of Micro and Small Enterprises

Despite their significant contribution to the economy, MSEs face serious challenges that hinder their growth and effective operation. According to Muma (2002), Hallberg (1999) and Ishengoma and Kappel (2006) as cited in (Mesfin, 2015) this sector is often referred to as small businesses with big problems.

Various authors identified key determinants of MSEs' performance. According to Endalkachew (2008) findings, lack of capital were the major problem, which leads to failures of micro enterprises. Among the respondents investigated, 80% of them complained that lack of capital was contributing to the malfunctioning of their business. Other causes that failure of micro enterprises are land and premises 80%, taxation 70%, poor market and market information 68%, business support service 64%, poor record keeping wrong pricing 64%, negative cash flow 60%, management problems 58%, and conflict among partners of 50% respondents that claimed the cause as contributor to failure.

According to Bowen et al. (2009) findings, disciplined financial management, availability of market /customers, location/ accessibility of the business, skilled workforce, good business networking, competitive pricing /low cost, selling variety of products/services availability of capital, availability of credit from the banks, fair competition, clear vision of what is required, reading business magazines, attending workshops /seminars, attending workshops/ seminars and focusing on niche market respective of their sequence are factors that contribute to business success. On the other hand, increased competition, insecurity, debt collection, lack of credit, power interruptions, political uncertainty, cost of materials (inputs), low demand, unfavorable business laws, high transportation costs, few customers/low demand, high rent charges, lack of water, cost of production, cheap imports, and technological constraints are challenges facing micro and small businesses.

In general as it is justified by a number of researchers and authors; Tassew et al (2015), Endalkachew (2008), Tiruneh (2011), Berihu et al (2014), Bizusew (2015), Asma Benzazoua (2015), Mohammed et al (2013), Johan and Muyu (2012), and Mesfin (2015) identified key external and internal determinants that affect the performance of MSEs as follows ;

2.2.3. Empirical Review in Ethiopia

Admasu, (2012) in his study on factors affecting performance of MSEs in Arada, Addis Ababa used a linear regression analysis. Research of this type was conducted using the variable factors of politico-legal, working premises, technology, infrastructure, marketing, finance, management and entrepreneurial skill. The finding of Admasu (2012) showed that all the variables were found to be positive and significant to affect performance of MSEs.

Abraham (2013) has also conducted a research about performance of MSEs and its determinants in Hosana using research design of logistic regression. The significant variables that have a direct cause on the performance of MSEs were age of the enterprise, age of the operator, educational level, number of employees, initial capital, skill of operator, experience of the manager, access to training and access to market. All the variables were statistically positive and significant to influence the performance of MSEs.

A study by Netsalem (2011) on factors affecting the performance of MSEs case study of Harar with the objective to investigate the role of working capital, credit utilization, working place, machinery, training, level of innovation, entrepreneurial skill, managerial skill, level of education, age, family size, marital status and sex on performance of MSEs using multiple regression and descriptive analysis.

His finding indicates that credit utilization, availability of working machinery, and training were found to be statistically positive and significant to influence performance of MSEs in the study area.

A study by done by Mehari (2016) on factors affecting the performance of MSEs in Kirkos Sub City Addis Ababa, Ethiopia with the objective to assess the main factors that are mostly affecting performance of MSEs in the study area by descriptive research in making data analysis. However, his methodology was limited to only descriptive method; he did not use statistical inferences and regression analysis to show the strength and direction of the association between the variable factors access to credit, working premises, marketing issues, record keeping practice and access to bank account affecting the performance of MSEs.

Tiruneh (2011) researching on analysis of success factors of MSEs in Addis Ababa with the objective to investigate the role of age of the operator, educational level of the owner, management experience, industry experience, marketing skill, plan, record keeping and financial control, and forms of ownership variables on performance of MSEs in the study area. He has used descriptive and multiple linear regression in making data analysis. However, all the variables were found to be statistically insignificant to affect performance of MSEs in the study area.

W/gebriel (2012) studied on problems of Micro and Small Enterprises in Addis Ababa: the Case of Kirkos, Kolfe and Yeka sub-city using the variables of age of the firm, favorability of business environment, competition level, and institutional quality, access to raw materials, access to training, management, access to finance, and government rules regulation.

The finding of W/gebriel shows that competition level, access to raw material, and marketing founds to be negative and significant. However, favorability of business environment, institutions quality and government rule and regulation found to be positive and significant and also the model was estimated by logit.

A study done by Mulu (2009) on the Innovation and Microenterprises in Ethiopia with the objective to investigate factors affecting innovation. The responsible factors were; education, age of the operator, gender, size of the firm, age of the enterprise, and vocational training Mulu has employed using logistic regression in making data analysis. His finding indicates that education, size of the firm, age of the enterprise, and training were found to be positive and significant with the exception to gender and age of the operator negative and significant.

A study by Ranjith and Dayavanda(2014) on the determinants of success of small business: a survey based study in Kuliyapitiya Division Secretariat of Srilanka. The research method employed in investigating the variable factors of family background, entrepreneur's vocational training, entrepreneur's decision-making ability, entrepreneur's knowledge of the trade, invested capital in the business, and leadership skill of the entrepreneur was descriptive and linear regression research design with the sampling technique of stratified random sampling method and the model was estimated by using OLS. The findings of Ranjith and Dayavanda (2014) showed that all the variables were found to be significant and positive relationship with the exception to vocational training of entrepreneur and entrepreneur's knowledge of trade which were not found statistically significant.

Another study was done by Mbugua et al (2014) on factors affecting the performance of MSEs in Limura Town market. To identify the necessary factors the researchers have used variables of business information service, access to finance, management experience, access to infrastructure, and government policy and regulation.

Mbugua et al (2014) have used descriptive research and linear regression design in making data analysis and their findings indicated that all variables have positive and significant to affect the performance of MSEs with the exception to infrastructure.

Kayode and Afred (2014) researching on factors influencing capacity of MSEs in employment creation in Legos State Nigeria with the objective to investigate the role of age, gender, education, source of startup capital, source of raw material, business size, business registration, nature of factor intensity, and nature of business on the capacity of MSEs in creating employment opportunity using the descriptive research and probit model in making data analysis. The findings indicated that business registration, business size, nature of business, source of capital was found to be positive and significant to affect capacity of MSEs. However, age of the business, educational level, and source of raw materials did not find to be statistically significant to affect performance of MSEs in the study area.

A study conducted by Francis and Dedan (2015) to investigate factors influence growth of MSEs in Nairobi Central Business District with the objective to assess access to credit, assess age of the firm, and, assesses educational level affecting growth of MSEs in the study area using descriptive and linear regression research in making data analysis.

Accordingly, his findings indicated that both access to credit and age of the firm were statistically positive and significant variables affecting growth of MSEs in the study area.

Anne Ngima (2014) studied on factors affecting the performance of MSEs in the Jua Kalisector in Nakuru Town Kenya. He has used the variable factors of access to finance, management skill, macro environment; infrastructure affecting the performance of MSEs's using a descriptive and linear regression in making data analysis. His findings indicated that infrastructure was not found to be significant factor affecting performance of MSEs in the study area. But the other variables were found to be positive and significant with the exception to macro environment which has a negative but significant.

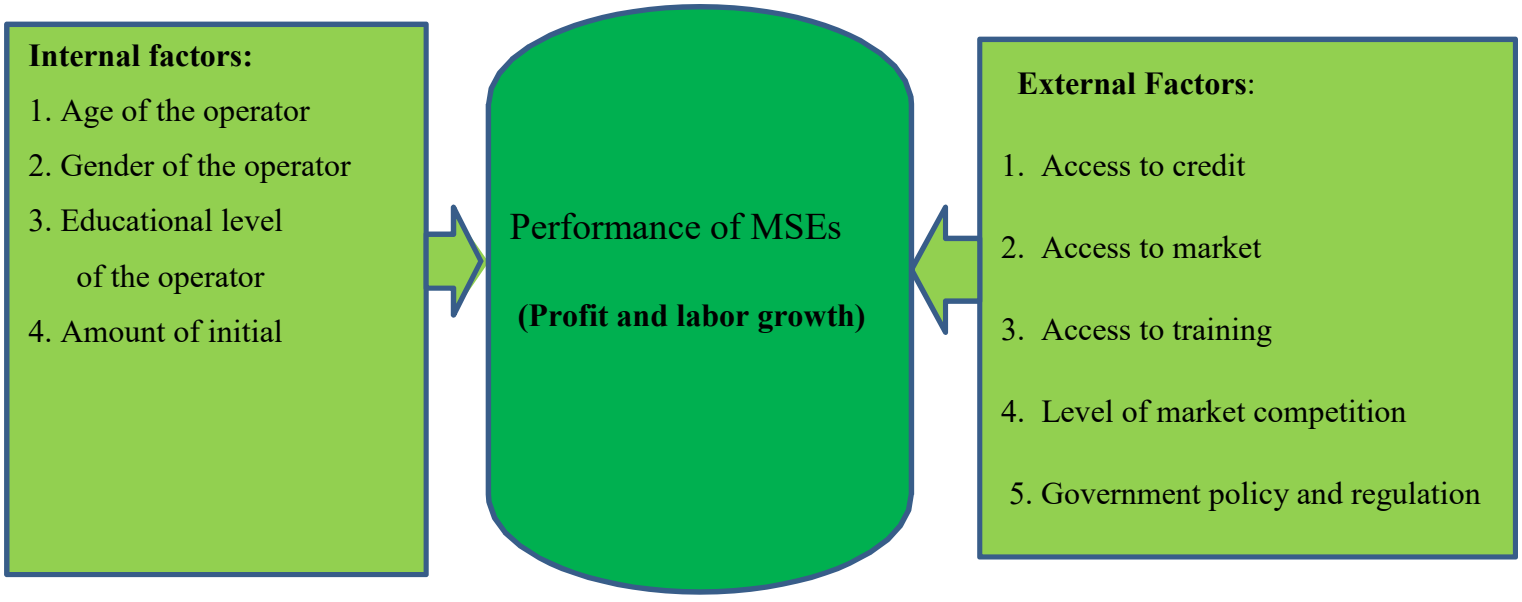
A study by Mohammed et al (2013) on the success factors of MSEs in Bangladesh using the responsible factors of: age, work experience, education, marketing, technology, capital access, infrastructure facility, government policy, and information access using descriptive research and linear regression.

The findings of Mohammed et al showed that age, government policy and information access were found to be negative and significant but the remaining variables have positive and significant to affect performance of MSEs.

To sum up, a lot of research has been carried out locally and internationally reviewing small and micro enterprises. Most of these research concentrate on micro and small businesses in the cities and urban centers. They also concentrate on their study areas based on their own objectives. There is scarcity of literature touching in the study area of Sayilem district that is why any kind of related study is not follow suit in study area. Even so particular similar studies have been needful to fill research gap on study area. Therefore, this study is built on the local literature study research gap on factors that affect performance of MSEs in Sayilem district.

2.2.5. The Conceptual Framework

Conceptual framework means concepts that relate variable to one another were used to explain the research problem. Based on the literature review current research undertaken on similar topics, the study formulate the research Conceptual model presented in figure 2.1 below to investigate internal and external factors affecting the performance of MSEs in Sayilem district.



Source: Own Conceptualization model (2021) Figure 2.1

CHAPTER THREE

3. RESEARCH DESIGN AND METHODOLOGY

3.1. INTRODUCTION

This chapter describes methods followed by six parts that the researcher to carry out the objective of this research. On points that first part describes about description of the study area and second part also discus bout research design. Part three shows that about Source, types and methods of data collection. Likewise part four discuses about Sampling design, technique and sampling size determination. Similarly part five present about data analysis techniques and finally part six discuses about model specification and description of study variables.

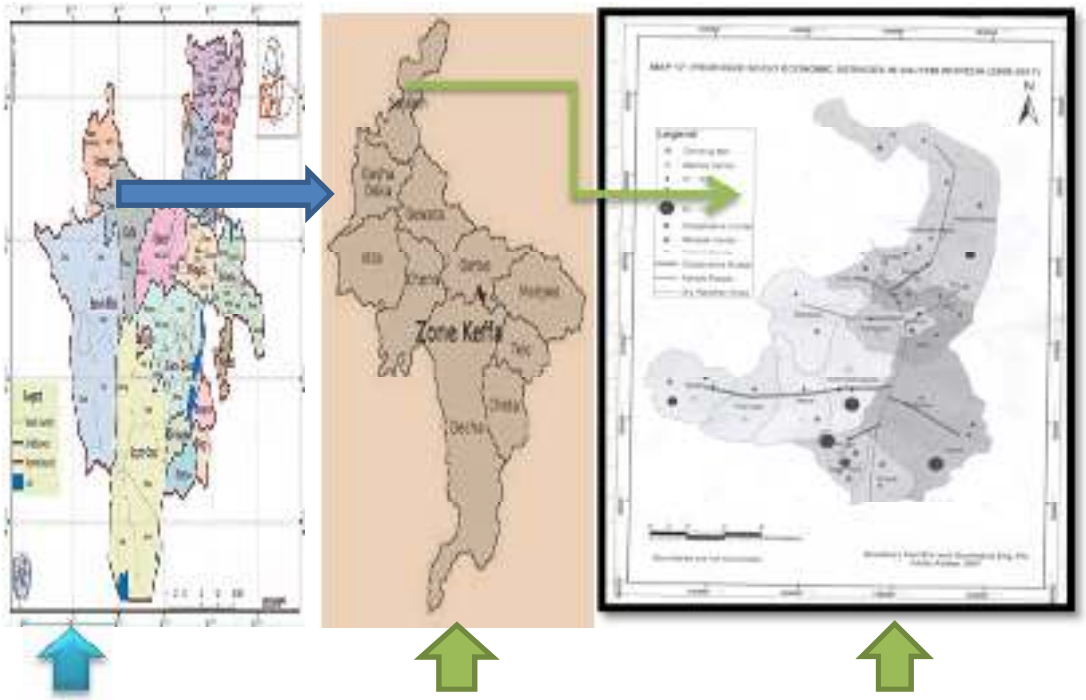
3.2. Description of the study Area

The study was conducted in *Sayilem* district which is located in *kaffa* zone of the *SNNPR* state in south west *Ethiopia*. The district is approximately located between7067'&8013'latitude and 35059'-35093'longitude (*Kaffa Z*one Finance and Economic Development Department Annual Abstract, 2010). *Yadota*, is the town of the district, is located south west of *Addis Ababa* at a distance of 580km through *Jimma* A. Jifar to Bonga *Saylem* or through *Jimma* to *Ilu-Ababor-Mettu* to *Sayilem*. The district is bounded with *Gesha* district from *Kaffa* zone to the south, *Sheka* zone to the west, *Gewata* district from *Kaffa* zone to the south-east, *Sigimo* district from *Jimma* zone to the East and *Becho* district from *Illu-Ababora Oromiya* to the North (K/Z/F/E/D/D/A/A, 2010).

Saylem district has totally 22 *kebelles*. Out of this one is the urban and the other 21 are rural. The total area of 856.6 km2 land inhabited with an overall human population of about 37461 male, 33108 female and totally 70569 (K/Z/F/E/D/D/S/A, 2010). The two traditional agro ecological zones found in this study area are Dega 9.6% and Woina-dega 90.4 % (K/Z/F/E/D/D, 2010). The main sources of incomes in the district are agriculture/crop-production, fattening of cattle/ and trading.

Kafa zone's administrative town–*Bonga* (capital city of the country) is located at 449 km southwest of *Addis Ababa*. This study area is located 160 km away from *Bonga* town. The area is known by its dense natural forest with diverse tree and wild life species.

Figure 3.1: Location of the study Region, zone and district: Figur.1



Map of SNNPR *Kafa* zone with its' 10 district *Saylem* district (study area) With its' 22 *kebeles*

3.3. Research Design

Research design is the blueprint for fulfilling research objectives and answering research questions (John A.H. et al., 2007:20-84). In other words, it is a master plan specifying the methods and procedures for collecting and analyzing the needed information. It ensures that the study would be relevant to the problem and that it uses economical procedures.

In this research descriptive and explanatory research design is employed with quantitative and qualitative methods.

- Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity whereas,
- Qualitative research is concerned with qualitative phenomenon, which means phenomenon relating to or involving quality or kind (Kothari, 2004).

❖ **Descriptive research design:**

- This is concerned with determining the frequency with which an event occurs or relationship between variables.
- describes and critically assesses the factors affecting the performance of MSEs in Sayilem district

❖ **Explanatory research design:**

- This is concerned with determining the cause-and-effect relationships.

3.4. Source and type of Data

The study was employed both primary and secondary sources of data. The primary sources of data for this study were the micro enterprise operators/owners. Secondary sources of data were obtained from government offices and other relevant organizations. The primary data was collected from micro and small enterprises through structured questionnaire. The questionnaire included both closed and open-ended questions. Additionally, key informant interview was prepared for the purpose of obtaining the qualitative information in order to supplement the primary data.

Moreover, the study utilized cross-sectional in the sense that all relevant data were collected at a single point in time. The reason for preferring a cross-sectional study is due to limitation of time. And obtaining information from a cross-section of a population at a single point in time is a reasonable strategy for pursuing many descriptive researches (Admasu, 2012).

3.5. Sampling design

The study used multi-stage probability sampling techniques. In the first stage selection of this study, to select sample size, a list of the MSEs formally registered as formal enterprises until (January 2021 G.C) that the data obtained from *Sayilem* district micro and small enterprise development office.

This study area has covert with (22) *kebelles* with formally registered total enterprise of 517. From this *Yadota* is one of the study areas and it is purposively select among (22) *kebelles*. This is because it is the only urban *kebelle* of the study area. In this urban *kebelle* there are two different business types of (Merchandize and retail shop and wood and metal work). MSEs are conducted and stratified random sampling technique was used. In this technique the investigator must group the sample frame in to homogeneous group often called strata before selecting the element for the sample and the business type was taken as criteria to create strata. The remainders (21) have rural *kebelles* of the study area. All of these *kebelles* are rural agriculture sectors. To get hold of equal number and to manage time and cost this rural *kebelles* have been classify in (3) clusters by including abuttal (7) *kebelles* in one based on their nearness and convenience to collect data within a short period time.

Table 3.1. Classified clusters and selected rural *kebelles*

Clusters	Rural *kebelles*	Selected rural *kebelles* from clusters
One	*Miso*	*Miso and Yuna-ginda*
	Shenkora	
	Kejeto	
	Yinemada	
	Tebela	
	Celesheki	
	Yuna-ginda	
Two	*Agaro*	*Dino and Deli*
	Shunity	
	Emiriki	
	Techibi	
	Senteriya	
	Dino	
	Deli	
Three	*Sor*	*Sor and Kochi*
	Dabi	
	J'ii	
	Guracha	
	Geciti	
	Kochi	
	Homi	

Source: Own survey (2021)

Table 3.2. The only urban *kebelle* of the study area

Cluster	The selected solitary urban *kebelle*
one	Yadota

Source: Own survey (2021)

From the above (3) clusters of rural *kebelles* (2) *kebelles* were selected by lottery system from each of (3) clusters. These are, *Miso* and *Yuna-ginda* from cluster one, *Dino* and *Deli* from cluster two and *Sor* and *Kochi* from cluster three. Totally (6) *kebelles* were selected from each of (3) clusters of rural *kebelles*. For this study (6) *kebelles* from rural and (1) solitary *kebelle* from urban were selected. Totally out of (22) *kebelles* of the study area; (7) *kebelles* were selected for this study.

- In the second stage study, all enterprises (517) were stratified in to three target population groups of rural agriculture, merchandize and retail shop and wood and metal work based on their similar business activities.

3.5.1. Target population

Target population is the specific population about which information is desired. According to Ngechu (2004), a population is well defined or set of people, service, elements, and events, group of things or households that are being investigated. Mugenda and Mugenda, (1999), explains that the target population should have some observable characteristics, to which the researcher intends to generalize the results of the study.

This study was conducted in seven *kebelles* of *Sayilem* district. In this study to select sample size, a list of the population formally registered MSEs until January 2021 by the *Sayilem* district micro and small enterprise development office were obtained. The total number of MSEs was 517, out of this, 234 MSEs were established [the last two years up here until now]. (i.e., November 2019 - January 2021 E.C) and these 234 MSEs was the total population of this study, which includes rural agriculture 131(56%), merchandize and retail shop 81(35%) and wood and metal work 22(9%) which are registered from the file of *Sayilem* district MSEs Office.

Table 3.3. Target population

NO	Target population	Frequency	Percentage
1	Rural agriculture	131	**56**
2	Merchandize and retail shop	81	**35**
3	wood and metal work	22	**9**
	Total	**234**	**100.0**

Source: *Own survey 2021*

In the last third stage simple random sampling technique was employed in taking the representative samples after stratification has been made.

3.5.2. Sampling technique

Stratified random sampling technique was used to get information from different sectors of the MSEs. This technique is preferred because it is used to assist in minimizing bias when dealing with the population. With this technique, the sampling frame can be organized into relatively homogeneous groups (strata) before selecting elements for the sample. According to Janet (2006:94), this step increases the probability that the final sample was representative in terms of the stratified groups.

In this study all studded sectors are stratified with their sectors, because they are different by their nature of sectors. The strata are sectors including: rural agriculture from rural *kebelle*, merchandize and retail shop and wood and metal work from urban *kebelle*.

3.5.3. Sample size determination

A sample with the smallest sampling error will always be considered a good representative of the population. On the other hand, smaller samples may be easier to manage and have less non-sampling error. Handling of bigger samples is more expensive than smaller ones. Due to Catherine Dawson (2009:54), the correct sample size in a study is dependent on the nature of the population and the purpose of the study. Accordingly, in this study to make the sample

more representatives, the sample size of the study is determined using the formula adopted from kreijcie and Morgan's (1970), (Yamane, 1967) sample size determination formula was used, it is possible to determine the sample size, at 95 % confidence level and 0.05 sampling error (level of precaution).

$$n = \frac{N}{1+N(e)2} \quad \text{..... (3.1)}$$

Where, n = number of respondents (Sample size)

N = Total population of MSEs

e^2= sampling error/level of precaution = 0.05

$$n = \frac{N}{1+N(e)2} = \frac{234}{1+234(0.05)2} = \underline{147.6} = \underline{148}$$

In this study, systematic random sampling type of probability sampling was used in selecting each element of the sample size, where every element in the population has the same chance of being selected and the data was collected by using semi- structured questionnaire. Accordingly, 148 respondents were selected from the total of 234 MSEs. These 148 MSEs respondents were selected from study area *kebelles* sectors including rural agriculture, merchandize and retail shop and wood and metal work on proportional basis. The total of 86 figure were omitted by Lottery system from 234 each *kebelles* study sample size in the following way.

The sample size selected here is considered as representative of rural agriculture 83(63.4%), merchandize and retail shop 51(63%) and wood and metal work 14 (63.6%) are also selected on proportional calculating technique from total study population of 234. This is because in order to avoid selection bias.

Table.3.4. Number of Samples from each Sector

NO	Targeted sectors selected for this study	Total population selected for this study	No. of samples selected by proportional calculating technique from registered 234 total study population
1	rural agriculture	131	83
2	Merchandize and retail shop	81	51
3	wood and metal work	22	14
Total		234	148

Source: Sayilem district MSEs Office (2021)

3.6. Data analysis techniques

Data analysis is done after all the relevant data have been gathered from the respondents (that is after data processing procedures of editing, encoding, classification and tabulation of the collected data with their group for easily understanding and working process).

The empirical analysis of the study was conducted using both descriptive statistics and econometric regression model. The descriptive analysis was made use of tools such as percentage, and frequency distribution. The econometric regression model applied for analyzing the data was estimated by using binary logistic regression and OLS model. In this case the value of dependent variable (performance of MSEs) is measured by profit and labor growth.

3.7. Model specification and description of study variables

3.7.1. Econometric Model Specification

In this study we use two models, such as binary logistic regression and OLS model.

3.7.1.1. Binary logistic regression model

The choice of model that can be applied in the study depends on the nature of the dependent variable rather than an independent variable (Gujarati, 2004). If the dependent variable is dummy variable with only two categories binary logistic regression model is appropriate. Likewise, as the response variable was dichotomous, binary logistic regression has been employed as recommended by numerous studies for its manageability, cleanness and suitability (Field, A., 2009).

In this study profit which is measured by total sales minus total costs is one of the dependent variable. The result value of profit that we obtained from total sales minus total costs is positive and negative (i.e. profitable & loss).This indicate that on dummy variable. Hence the binary logistic regression model that assumes dichotomous dependent variable which takes either 1 or 3 value depending on Y is used. Therefore, (Y) is dummy variable for which (1) indicates for profitable and (3) indicate for loss.

Binary logistic regression analysis is a specialized form of regression that is formulated to predict and explain when the dependent variable is dummy, categorical (binary) and the independent variables are metric or non-metric, binary logistic regression is appropriate (Hair et al., 2010).

The coefficients and the odds ratios then represent the effect of each independent variable controlling for all of the other independent variable(s) in the model. Each coefficient can be tested for significance, but we may want to also know whether all of the predictors, taken together, account for a significant amount of variance in the dependent variable.

While specifying the allocation of the model, the steps followed by Gujarati (1992) were considered and the joint effects of all explanatory variables put together on the odds is (Holmes and Hossain, 2008) which is provided below:

$$Odds = \frac{p}{1-p} = e^{\alpha + \beta_1 X_1 + \beta_2 X_2 + \cdots \beta_p X_p} \quad \ldots\ldots 1$$

Taking both sides by logarithms, the equation will be:

$$\textbf{Log}\frac{p}{1-p} = \textbf{Log}^{\alpha + \beta_1 X_1 + \beta_2 X_2 + \cdots\cdots\cdots \beta_p X_p} \cdots\cdots\cdots 2$$

$$Y = \textbf{Logit}\, p = \alpha + \beta_1 X_1 + \beta_2 X_2 + \cdots\cdots \beta_p X_p \cdots\cdots\cdots 3$$

The coefficients β_1, β_2 and β_p are such that the sums of the squared distance between the Observed and predicted values (i.e., regression line).

If the error term **(ε)** is taken in to account, the logistic regression model is generalized as:

$$Y_i = \alpha o + \sum \beta_i X_i + \varepsilon_i \cdots\cdots\cdots 4$$

Where: Yi = performance MSEs (profit) is dependent variable as measured by the total sales minus total cost.

αo = is the intercept term (coefficient of the model)

β_i = is the coefficient of Xi (explanatory variables)

Xi = are the explanatory variables (Contains the set of independent variables)

ε_i= is the error term. This is defined as a proxy of all those variables that are omitted from the model but that collectively affect "Y" (Gujirat, 2004).

Accordingly, from the binary logistic regression model analysis above the core forecaster of micro and small enterprises expansions (the derived model for this study (equation 4 into equation 5**)** which is the function of dependent variable to various explanatory variables) will be developed as a specific form of:

$$\begin{aligned} \text{Log}\, Yi = \alpha o &+ \beta_1(Age\ of\ the\ operator_1) + \beta_2(Gender\ of\ the\ operator_2) \\ &+ \beta_3(Education\ level\ of\ the\ operator_3) + \beta_4(Amount\ of\ initial\ capital) \\ &+ \beta_5(Access\ to\ credit\ _5) + \beta_6(Access\ to\ market_6) \\ &+ \beta_7(Access\ to\ training\ _7) + \beta_8(Level\ of\ market\ competition\ _8) \\ &+ \beta_9(Government\ policies\ and\ regulation\ _9) + \varepsilon \cdots\cdots\cdots 5 \end{aligned}$$

3.7.1.2. Multiple linear regression (OLS) model

Following the empirical research done by Admasu (2012), Abraham (2013) Mohammed et al (2013), Mbugua et al (2014), Kayod and Afred (2014), Francis and Dedan(2015), and others have analyzed factors that affect the performance of MSEs.

Therefore, the analysis of determinants of MSEs Performance was examined by estimating multiple linear regression model. The model is relevant and applicable to investigate issues of factors that are cross- sectional in nature and provides with a method of measuring accuracy. The model for this study is specified using multiple regression analysis to establish between the independent variables and dependent variable (employment size) as follows:

$$\boldsymbol{Performance\ of\ MSEs\ (Yi)\ Yi = \alpha o + \beta_1(Age\ of\ the\ operator_1) + \beta_2(Gender\ of\ the\ operator_2) + \beta_3(Education\ level\ of\ the\ operator_3) + \beta_4(Amount\ of\ initial\ capital\ ) + \beta_5(Access\ to\ credit\ _5) + \beta_6(Access\ to\ market_6) + \beta_7(Access\ to\ training_7) + \beta_8(Level\ of\ market\ competition_8) + \beta_9(Government\ policies\ and\ regulation_9)\ +\ \varepsilon \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots . 6}$$

The general multiple linear regression model is then specified as:

$$\boldsymbol{Y_i = \alpha o + \sum \beta_i X_i + \varepsilon_i \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots 7}$$

Where: Yi = performance MSEs (employment size) is dependent variable as measured by Current employment size minus initial employment size over enterprise age**.** Therefore, dependent variable (employment size) for which, (0) indicates for decrease, (1) indicate no change and (2) indicate increase for MSEs growth.

αo = is the intercept term (coefficient of the model)

βi = Beta is the coefficient of Xi (explanatory variables)

X**i** = are the explanatory variables (independent variables)

Ɛi = is the error term

3.7.2. Description of study variables

3.7.2.1. Dependent variable

In this study we use two dependent variables such as profit and employment size to measure Performance of MSEs.

- Performance of MSEs is a dependent variable measured by profit = (Total sales minus Total costs) **8**
  - **Total sales/revenue:** It is the total amount of money that a firm received during a given period of time as a result of rendering services or selling commodities to its customers. In this case the annual total sale received by the operators/owners of MSEs was taken.
  - **Total cost:** it is the total amount of money incurred in a given period of time in the process of earning revenue. In this case the total amount of money incurred in the process of earning revenue by the owners (operators) of MSEs was taken. In taking the total cost both fixed cost and variable cost was taken under consideration
  - **Variable costs:** costs that vary with output example; wages, input price, cost of purchased goods for resale purpose.
  - **Fixed costs:** costs that do not change when the quantity of output changes such costs are rent of the building, interest expense, salaries of permanent workers.

Therefore, if the total sales is greater than total cost performance of MSEs is good and the enterprise is operating at profit otherwise their performance is low and is operating at a loss. In measuring performance of MSEs Xheneti and Bertlett (2012) argued that the basic objective of the firm is to maximize profit as a result performance of the firm should be largely measured based on profit. Equally, Abraham (2013) and Ranjith (2014) have also used profit in measuring performance of MSEs in their respective study area.

- Performance of MSEs is a dependent variable measured by employment is that =

$$MSEgr = \frac{\ln St' - InSt}{E\alpha} \quad \ldots\ldots 9$$

Where, **MSEgr =** Employment size (labor growth)

InSt' = represent the firm's current employment size;

InSt = represent the firm's initial employment size and

Eα = denotes enterprise age.

3.7.2.2. Independent variables

- **Age of the operator (AGE OPR)**

The age of managers refers to the length of time that the managers have existed. Empirical studies conducted by various researchers (Solomon, (2004); Tassew et al (2015); Mohammed et el, (2013) reveals that a negative relationship exists between age of the operator and performance of MSEs. However, the finding of Abraham (2013) shows a positive relationship. In some cases the finding of research carried out by Tiruneh (2011) age of the enterprise has found to be insignificant in influencing performance of MSEs.

Thus, age of the operator/owner and performance of enterprises will be hypothesis that there is no a significant relationship between them. Therefore, the sign of the coefficient for the age of the operators will expected to be (+/-).

- **Gender of the operator (GEND OPR)**

Accordingly the finding of research carried out by Mesfin(2015), Tassew et al(2015), Mulu (2009), and Solomon (2004) female-owned enterprises; their performance level was found to be less as compared to male-owned enterprises. In other words, negative and significant relationship between female-owned enterprise and performance of MSEs was found. On the other hand, Menzies (2004) as cited in Tassew et al (2015) found that hardly any differences between male and female owned enterprise on their performance level.

This is measured as a dummy variable taking a value of one if the enterprise is female owned and zero otherwise. Therefore, gender of the operator/owner and performance of enterprises will be hypothesis that there is no a significant difference between them. Therefore, the sign of the coefficient for the gender of the operator will expected to be (+/-).

- **Education level of the operator (EDL OPR)**

The level of education attained is likely to affect the levels of skills using which one may survive in the business. Therefore it is assumed to have positive influence on the values of profitability of the enterprises. The level of education attained by the operators of the enterprises is the attainment level of formal education. Most studies reveal that formal education has a positive impact on the performance of MSEs. The level of education attained is likely to affect the levels of skills using which one may survive in the business (Solomon 2004; Abraham, 2013; Tassew el al, 2015).The level of education is therefore assumed to have positive influence on the performance of MSEs.

Thus, educational qualification of the operator and performance of enterprises will be hypothesis that there is significant and positive relationship between them.

Therefore, the sign of the coefficient for the education level attained by the operators of MSEs variable will expected to be positive(+).

- **Amount of initial capital (AM IN CAP)**

Amount of initial capital is amount of start-up capital obtained from different sources to start a business (Abraham, 2013; Ranjith et al, 2014). Thus, the researchers in their study noted that adequate amount of initial capital would have a positive impact on the performance of MSEs.

It is assumed in this study that the higher amount of initial capital of the enterprises, the higher growth is likely to be.

Thus, the amounts of initial capital invested in the business and performance of enterprises will be hypothesis that there is a significant and positive relationship between them. Therefore, the sign of the coefficient for the amount of initial capital will expect to be positive (+).

- **Access to credit (AC CRED)**

The findings of the research carried out by Berihu et al (2014) reveals that financial constraints were found to be one of the critical bottlenecks for the performance of MSEs. Enterprises that have access to formal credit are expected to grow faster than those that have not (Solomon, 2004). Small enterprises are unable to expand, modernize or meet urgent orders from customers due to lack of finance (Mbugua et al, 2014). Better financial access for SMEs contributes to economic growth, reduced income inequality and reduced poverty (World Bank 2008; cited in Francis and Dedan, 2015).Thus, having more access to credit motivates enterprise operators to perform broad activities and thus increase growth of the enterprise. This is measured as a dummy variable taking a value of one if the enterprise has provided with financing from any formal financial institutions since establishment and zero otherwise.

Therefore, access to credit and performance of enterprises will be hypothesis that there is a significant and positive relationship between them. Therefore, the sign of the coefficient for the access to credit will expect to be positive (+).

- **Access to market (AC MARK)**

Access to market refers to the availability of market demand for the particular commodity or service. Enterprises create different market access for their products and services insure the existence of market alternatives for their product. According to the findings of Mahmud (2011), as cited in Abraham, (2013), Admasu (2012), and Mohammed et al (2013) the higher level of market access results the greater level of enterprises performance. Moreover, Berihu et al(2014) in their research findings noted that limited access to market was found to be one of the main challenges affecting performance of MSEs. Apart from Mahmud and Berihu et al, Mohammed et al (2013) and Belay et al (2015) also offer equally important view on the limitation of market access impedes performance of MSEs. This is measured as a dummy variable taking a value of one if the enterprise has access to market and zero otherwise.

Therefore, access to market and performance of enterprises will be hypothesis that there is positive and significant relationship between them. Therefore, the sign of the coefficient for the access to market will expect to be positive (+).

- **Access to training (AC TR)**

Access to training for enterprises refers to the facilitation of different trainings which assists the operators of the enterprises to perform in a suitable way. Capacity building trainings would better prepare enterprises to perform in the business they engaged (Solomon, 2004; Benjamin and Bonno, 2007 cited in Abraham, 2013; Ranjith, 2014; and Asma Benzazoua, 2015). Therefore, training for MSEs operators allows them to develop the substantial skills to ensure the survival and performance of their enterprises. This is measured as a dummy variable taking a value of one if the operators have get trained with skill needed since starting a business or before and zero otherwise.

Thus, operator's access to training and performance of enterprises will be hypothesis that there is a significant and positive relationship between them. Therefore, the sign of the coefficient for the access to training will be expected to positive (+).

- **Level of market competition ((LVO MR CPT)**

The degree of market competition can influence the performance of MSEs. A research carried out by W/gebriel(2012), Kukov and Ying Xie (2012), Tejvan (2016), and Dietsch (2010) in their empirical study noted that negative and significant relationship exists between the level of market competition and performance of MSEs. Therefore, based on the above researchers if the number of firms in the market is low then the degree of competition will be little and the demand will be more inelastic. This enables a firm to increase profits by increasing the price. However, if the market is very competitive this leads to price reduction thereby a decline of profit in particular and the performance of MSEs in general. This is measured as a dummy variable taking a value of one if the competition level is high and zero otherwise.

Therefore, level of market competition and performance of enterprises will be hypothesis that there is a significant and negative relationship between them. Therefore, the sign of the coefficient for the level of market competition will expectet to be positive (-).

- **Government policy and regulation (GO PL REGU)**

The findings of a study carried out by Ngu Ono et al (2014) revealed that government policies and regulation related factors such as bureaucratic procedures in lending terms, business licensing and registration, high tax rate, and lack of government incentives have negatively influenced the performance of MSEs. Government regulation about wages, taxation, licensing and others are among the important reasons affecting performance of MSEs. Without careful attention, government policies could crush the small business sector in any economy (Mbugua et al, 2014). Government policies should aim to encourage and promote the development of local technologies. Emphasis should be on the promotion of the local tool industry to reduce reliance on imports (Berihu, 2006; and (Mbugua et al, 2014). This is measured as a dummy variable taking a value of (1) if the government policy and regulation is found to be in favor of the enterprises and (0) otherwise.

Thus, the relationship between government policy and regulation and performance of enterprises will be hypothesis that:

- If the government policy and regulation affects business enterprises adversely there is a significant and negative relationship between government policy and regulation and performance of MSEs with expectation sign of (-).
- If the government policy and regulation is in favor of MSEs, there will be significant and positive relationship exists with expectation sign of (+).

Table 3.5. Summary of variables and their measurements

No	Explanatory Variables	Variable description	Measurement	Expected sign
1	(AGE OPR)	Age of the operator	Continuous: Full years	+
2	(GEND OPR)	Gender of the operator	Dummy: male =1, Otherwise = 0	+/-
3	(EDL OPR)	Education level of the operator	Ordinal: 0= illiterate, 1= primary, 2 = secondary, 3 = high school, 4 = above high school	+
4	(AM IN CAP)	Amount of initial capital	Continuous: In Birr	+
5	(AC CRED)	Access to credit	Dummy: Access = 1; Otherwise = 0	+
6	(AC MARK)	Access to market	Dummy: Access = 1; Otherwise = 0	+
7	(AC TR)	Access to training	Dummy: Access = 1; Otherwise = 0	+
8	(LVO MR CPT)	Level of market competition	Dummy: High = 1; Otherwise = 0	-
9	(GO PL REGU)	Government policy and regulation	Dummy: Favorable =1; Otherwise = 0	+/-

***Source**: Own Survey (2021)*

CHAPTER FOUR

4. RESULTS AND DISCUSSIONS

4.1. INTRODUCTION

In this section, the results of descriptive analyses are presented in first section. Second Section talks about background and demographic characteristics of respondents which are related to internal factors that affect performance of MSEs. Section three present more over in table form about characteristics of economic and institutional variables that influence performance of micro and small enterprise in Sayilem district. Likewise, section four presents more over in table form about MSEs Performance and external related factors and also characteristics of economic and institutional variables that influence performance of micro and small enterprise in study area. The last section discusses and present about econometric results and interpretations about factor variables.

4.2. Background related to demographic and economic characteristics of the respondents and internal factors of MSEs

4.2.1. Background of the Respondents

4.2.1.1. Response rate

The total of 148 questionnaires were distributed across the three MSEs sectors of the study area of selected Sayilem district *kebelles*; which are 83, 51, and 14 were distributed to rural agriculture, merchandize and retail shop and wood and metal work respectively and all of 148 questionnaires were properly completed and returned back successfully with representing response rate of 100.0 %.

4.2.1.2. Marital status

Table 4.1: Marital status of the respondent

No	Respondents		Frequency	Percent	Cumulative Percent
	Categories	characteristics			
1	Marital status	Single	58	39.2	**39.2**
		Married	82	55.4	**94.6**
		Divorce	8	5.4	**100.00**
		Total	148	100.0	

Source: Own survey (2021)

- **Marital status of the respondents**

Pertaining to marital status of the respondents, 58(39.2%) are single, 82(55.4%) are married and the remaining 8(5.4%) owners are divorced. Single owners are shade that next to married owners than divorced. Illuminating that, marital status doesn't affect ownership of an MSEs.

4.2.2. Internal Factors Related to MSEs

- **Gender, Age, Educational level of the operators and Amount of initial Capital**

Table 4.2: Gender and Age of the respondents

No	Respondents characteristics		Frequency	Percent	Cumulative Percent
	Categories	**characteristics**			
1	Sex	Male	116	78.4	78.4
		Female	32	21.6	100.0
		Total	**148**	**100.0**	
2	Age	< 20	33	22.3	22.3
		21-30	39	26.4	48.7
		31-40	65	43.9	92.6
		Above 41	11	7.4	100.0
		Total	**148**	**100.0**	

Source: Own survey (2021)

- **Gender**

Regarding the gender of the respondents in the above Table 4.2 shows, 116(78.4%) of respondents are male and the rest 32(21.6%) respondents are female. This shows the number of male and female involvement in such enterprises are not equal or most of MSEs owners are male. This Male (78.4%) and Female (21.6%) could be pointing out the reality that customarily men are the providers for their households; female take care of their families. According to Woldle, Leighton and Adesua (2008:6), research on gender of owner/manager tends to focus on the male owner/managers, as the proportion of businesses owned by men exceeds those owned by women with most studies reporting that failure rates for businesses owned by females are higher than those for male. Reasons for this include limited access to finance, stringent collateral requirements.

- **Age**

As it is indicated in the above Table 4.2, from the total sample taken 33(22.3%) enterprises are possessed by principal owners with the age of < 20 years old. The other 39(26.4%) MSEs Individuals are with the age range of 21 to 30 years old. Likewise 65(43.9%) MSEs in this study are owned by individuals with the age range of 31 to 40 years old , which roughly shows the adult age group of the population in Ethiopia and the remaining 11(7 .4%) enterprises have owners with age of above 41 years old .

Majority of the respondents are found in between age of 31- 40 which indicates MSEs which organized by governments are found in the young age. According to Woldle, Leighton and Adesua (2008:6), the influence of the age of the owner/manager advocates the younger owner/manager because the younger owner/manager has the necessary motivation, energy and commitment to work and is more inclined to take risks, whereas the older owner/manager is likely to have reached his/her initial aspiration. Hence, younger owners/managers are more likely to sustain and grow their ventures than the older counterparts.

- **Education**

Table 4.3: Educational qualification of the Operators

No	Respondents characteristics		Frequency	Percent	Cumulative Percent
	Categories	characteristics			
1	Educational qualification	Illiterate	9	6.1	**6.1**
		Grade 1-4	19	12.8	**18.9**
		Grade 5-8	32	21.6	**40.5**
		Grade 9-10	41	27.7	**68.2**
		Grade 11-12	26	17.6	**85.8**
		10+1	13	8.8	**94.6**
		College diploma	8	5.4	**100.00**
		Above diploma	-	-	
		Total	148	100.00	

Source: Own survey (2021)

- **Education**

Due to above table of 4.3, the other measurement is educational level of the respondents or owners in Sayilem district of the study area. Accordingly the findings reveals that the majority of 47(31.8%) of the operators/owners were above high school and the remaining 41(27.7%) were qualified high school. This suggests that MSEs in Sayilem district is run and operated by the majority of high school, next to above high school with significance difference and less attained operators.

Regarding the above data, most of them have attained high school qualification and they apply read and write. Given the findings one can infer that the vast majority of the operators have acquired the basic literacy. For good and well small business performance, educated respondents are more profitable than not educated. In conclusion, majority of the operators are less in academic qualification which is believed to be crucial in running their business effectively.

- **Amount of initial Capital**

Table 4.4: Distribution of initial Capital

No	Amount of initial capital	Min.	Max.	Mean	Std. Dev	Frequency	Percent
1		6000	30000	20748.85	8271.53		
2	6000 – 9000					41	**27.7**
3	9001 – 15000					67	**45.3**
4	15001 – 20000					13	**8.8**
5	20001- 30000					27	**18.2**
	Total					148	**100.0**
6	Did your initial capital was adequate?				Yes	51	**34.5**
					No	97	**65.5**
	Total					148	**100.0**

Source: Own survey (2021)

- **Amount of initial Capital**

Respondents were asked to disclose the amount of initial capital with what they have started a business. It is assumed that the higher initial capital the more the objectives are achieved. The finding is summarized and presented in table 4.4, shows that about 41(27.7%) of the respondents reported that their initial capital was in the range of birr 6000 - 9000. Accordingly 67(45.3%) have started their business with birr of 9001 - 15000. Similarly 13(8.8%) of the respondents started with their initial capital of birr 15001 - 20000 and the remaining 27(18.2%) of the respondents began a business with a seed capital of birr 20001 - 30000.

This implies that the majority of the respondents have started their proposed business below the mean of initial capital and this may have an impact and limitation in the enterprises' capacity in generating profit, adequate income, and creating employment opportunities to others.

In light of this respondents were also asked if their startup capital was adequate. Accordingly the vast majority of the respondents 97(65.5%) as it can be shown in table 4.4 reported that their initial capital was not adequate enough to meet their expectation.

This indicates that majority of the operators have been faced challenges of capital shortage at startup. In closing, it can be said that amount of initial capital was not adequate and this may have an adverse effect on the performance of MSEs. Thus, government and other concerned body should have to make efforts in accessing credit for MSEs especially at startup.

4.3. Characteristics of economic and institutional variables of Micro and Small Enterprises and their Operators

4.3.1. Source of initial capital

Table 4.5: Source of initial capital

NO	Respondents characteristics		Frequency	Percent	Cumulative Percent Categories
	Categories	Characteristics			
1	Sources for initial capital	Own saving	45	30.4	30.4
		Family	65	43.9	74.3
		Micro financial institutions	12	8.1	82.4
		Iqubi/Idir	26	17.6	100.0
	Total		148	100.0	

Source: Own survey (2021)

- **Source of initial capital**

The above table 4.5 depicts that 45(30.4%) of the respondents reported that to start their own business the required capital came from own saving. Likewise 26(17.6%) Iqubi/Idir is another source next to family 65 (43.9%). The remaining 12(8.1%) Micro financial institutions are used as sources of their finance at the last. The results depicts that most of the respondents have sacrificed by only Own saving ; which were used for their hard earned money with a view of starting capital for their own business success and create jobs.

Majority of MSEs in the study area use informal sources next to family. The formal financial institutions have not been able to meet the credit needs of the MSEs. The reason for emphasizing on informal sector is that there is no formal banking service until now on study area. In another way, informal sectors also required relatively rare and high guarantee / collateral. The findings of this study show that the vast majority of operators have started their business by their own source of finance. Thus own saving was found to be the main source of startup financing in the study area. The proportion of MSEs that had ever received credit from microfinance institutions was very small. Microfinance institutions were not found in a position to give credit to MSEs perhaps due to the fear of risks associated with MSEs activities and their capacity in repayment of their loan.

4.3.2. Annual Sales Revenue and Total Costs of MSEs

Table 4.6: Annual sales revenue and total costs

No	Annual Sales revenue in Birr/per year	Frequency	Percent	Annual total cost in birr/per year	Frequency	Percent
1	Below 1000	54	36. 5	Below 500	44	**29.7**
2	1000 – 4000	11	7. 4	500 – 3500	59	**39.9**
3	4001- 7000	21	14. 2	3501– 6500	24	**16.2**
4	7001- 10000	23	15.5	6501- 9500	1	**0.7**
5	Above 10000	39	26.4	Above 9500	20	**13.5**
	Total	148	100.0	Total	148	

Source: Own survey (2021)

- **Annual Sales Revenue and Total Costs of MSEs**

To evaluate the capacity of MSEs in generating revenue, respondents were asked issues related to their annual sales revenue. In light of this as table 4.6 depicts, about 54(36.5%) of the respondents reported that their annual sales was below 1000. The other 39(26.4%) of the respondents said above 10000 and the remaining 55(37.2%) (Which are majority of the respondents) conformed that their annual sales were 1000 – 10000. This shows that the amount of annual revenue is not adequate enough to generate income to their operators/owners. Having a closer examination on the MSEs' capacity in generating revenue, operators/owner should exert their maximum effort to raise the volume of sales in order to meet the expected performance of their enterprises in creating job opportunity and poverty alleviation.

Again on the same table 4.6 of the sample respondents 44 (29.7%) reported that their annual costs was below 500. The table also shows that 84 (56.8%) of the respondents were in the range of 500 – 9500, and the remaining balance 20 (13.5%) had annual costs above 9500. In sum much efforts has to be made by the operators in maximization of the sales revenue and minimizing costs in realization of MSEs Performance.

4.3.3. Business form, types and Size of enterprise

4.3.3. 1. Form of a business

Table 4.7: Form of a business

NO	Alternative form of business	Frequency	Percentage
1	Partnership	121	**81.7**
2	Sole proprietorship	22	**14.9**
3	Cooperatives	5	**3.4**
	Total	**148**	**100.0**

Source: Own survey (2021)

- **Form of a business**

Table 4.7 above shows that majority of the businesses were 121 (81.7%) Partnership form, which were followed by Sole proprietorship 22(14.9 %) and the remaining 5 (3.4%) were cooperative form of business. Due to the respondents report , the finding demonstrated that micro and small enterprises especially Partnership were target to create job for labor force which seek job opportunity and the back bone economic growth in the study area.

4.3.3.2. Types and size of business

Table 4.8: summery of business types and size of enterprises

Business types	**Frequency**	**Percentage**	**Size of the business**			
			Microenterprise		**Small enterprise**	
			Frequency	Percentage	Frequency	**Percentage**
Rural agriculture	81	54.7	62	53.00	19	**61.3**
Merchandize and retail shop	49	33.1	37	31.6	12	**38.7**
Wood and metal work	18	12.2	18	15.4	-	**-**
Total	**148**	**100.0**	**117**	**100.0**	**31**	**100.0**

Source: Own survey (2021)

- **Description of business types and size of enterprises**

Dividing MSEs by sector is believed to be very helpful in studying factors determining the performance of the MSEs. This is because firms in different sectors of the economy face different types of problems. That means the degree of those critical factors in one sector may differ from the factors that are critical to other sectors. In this study three sectors are involved. Namely: rural agriculture, Merchandize and retail shop and Wood and metal work.

Among the sampled sectors of MSEs the majority of them were engaged in rural agriculture by total enterprise of 17(51.5%) with total members of 81(54.7%) for which on micro14 (50.0%) enterprise with members of 62(52.9%) and on small 3(51.1%) enterprise with members of 19(61.3%).

Merchandize and retail shop which were shade that next to rural agriculture by total enterprise of 11(33.3%) with total members of 49(33.1%) for which on micro 9(32.1%) enterprise with members of 37(31.6%) and on small 2(40.0%) enterprise with members of 12(38.7%).The remaining total enterprise of 5(15.1%) with total members of 18(12.2%) have Business sectors of wood and metal work for which the only from micro enterprise.

4.3.4. Origin of Enterprise

Table 4.9: Origin of enterprise

Origin of Enterprises	Frequency	Percentage
Newly established	62	**41.9**
Inherited from family	41	**27.7**
Purchased from others	23	**15.5**
No response	22	**14.9**
Total	**148**	**100**

Source: Own survey (2021)

In order to investigate the origin of enterprises as table 4.9 depicts, respondents were asked issues related to origin of their enterprises. With this regard, 62 (41.9%), 23(15.5%) and 41(27.7%) of the respondents confirmed that the enterprises under their operation were newly established, purchased from others, and inherited form family respectively. This implies that the majority of MSEs were newly established by their operators/owners so as to avoid its past weakness and have their own jobs following the opportunities of free market economy created by the current government policy in the aim of poverty reduction and job creation.

4.3.5. Age of the Enterprise/Year of Enterprise's Establishment

Table 4.10: **Age of the Enterprise**

Year of MSEs establishment	Frequency	Percentage
2019 GC	36	**24.3**
2020 GC	47	**31.8**
2021 GC	65	**43.9**
Total	148	**100.0**

Source: Own survey (2021)

- **Age of the Enterprise**

The longer a firm has been in the market the more knowledge it has about its own abilities and the probability of survival is positively related to firm age (Francis & Dedan, 2015). Contrary the view of Hyytinen & Pekka (2007) as cited in Mesfin (2015) argued that the younger business grows faster than older ones because of the willingness of their manager- owner take risks. Thus the age of the firm can positively or negatively or not at all related to the performance of MSEs.

The significance of the responses related to age of the enterprise in assessing its remaining in operation was made. As shown below in table 4.10 the majority of the responses indicated that 65 (43.9%) MSEs were established in the year of 2021 EC and the remaining enterprises 83(31.92) were established before 2021 EC. Expansions of MSEs are increasing from time to time and this is also in line with the current government policy because they are commonly accepted as tools of creating employment opportunities and poverty alleviation. This indicates that majority of MSEs in Sayilem district are in their infancy and recently established and this may have implication for low performance because older enterprises are more likely to have attained the ability to operate more economically and efficiently than recently established ones.

4.3.6. Number of Employees at Startup and at Current

Table 4.11: Difference in number of employees at startup and at current

No. employees at	Total participant	Min.	Max.
Startup	148	1	**4**
Current	**148**	**1**	**5**

Source: Own survey (2021)

- **Number of employees at startup and at current**

The aim of this information is to determine whether there is a difference in the number of employees at start up and at current. Hence according to the findings as it can be observed from table 4.11 above the maximum value of number of employees at startup are less than the number of employees at current. The current numbers of employees are increased. This indicates that performance of MSEs seems to be improved in creating job opportunity because there is a significant difference in number of employees at the beginning and at current.

4.3.7. Term of Employment

Table 4.12: Term of employment

Term of employment	Frequency	Percentage
Permanent	26	**17.6**
Temporary	41	**27.7**
Part-time	17	**11.5**
No employed workers	64	**43.2**
Total	**148**	**100.0**

Source: Own survey (2021)

- **Term of employment**

Table 4.12 compares the term of employment opportunity provided by MSEs. Accordingly, enterprises that provide employment opportunity at full time, temporary/contract, and on part–time basis are: 26 (17.6%), 41 (27.7%), and 17 (11.5%) respectively. However, bout 64 (43.2%) of the enterprises were unable to create employment opportunities other than the

owner/operator. This implies that the majority of the enterprises did not expand and grow in size to provide job opportunity to others.

In light of with this, the merchandize and retail shop (trade) sector was ranked first in terms of creating employment opportunity according to the discussion made with key informants. Hence other sectors (rural agriculture and wood and metal work) were in their infant stages. Key informants have also added that the merchandize and retail shop (trade) sector has a better market demand for its products. Thus, to exploit this market opportunities the sector is increasing hiring workers from time to time. Therefore, variation is observed among MSEs in creating job opportunities and hence efforts should be taken to the lagged sectors (rural agriculture and wood and metal work) in improving their capacity to provide employment opportunity.

4.3.8. Employment size

Table 4.13: Employment size

Employment size	Frequency	Percentage
Increased	78	**52.7**
No change	31	**20.9**
Decreased	39	**26.4**
Total	**148**	**100**

Source: Own survey (2021)

- **Employment size**

The study has also assessed growth rate Capacity of MSEs', for this reason respondents were asked if their employment size is increased or not after owning a business.

Accordingly, as it is indicated in table 4.13, 78 (52.7%) of the respondents reported that their MSEs' employment size was increased, 39(26.4%) respondents reported that decreased, and 31 (20.9%) of the respondents confirmed that there was no a significant differences in their employment size of MSEs' before and after starting a business. This indicates that the majority of MSEs were found in a position to provide adequate employment size to their operators/owners. In closing, it can be said that MSEs' growth is sufficient enough to alleviate poverty hence, government, operators, and other concerned body should have to work together

to enhance capacity of MSEs in generating more additional adequate income in Sayilem district.

4.3.9. MSEs and their Contribution to Job Creation

Table 4.14: Capacity of MSEs in job creation

Does your enterprise have contribution to job	Frequency	Percentage
Yes	87	**58.8**
No	61	**41.2**
Total	**148**	**100.0**

Source: Own survey (2021)

- **Capacity of MSEs in job creating**

One of the significant and expected contributions of MSEs is providing employment opportunity and thereby poverty reduction. Equally table 4.14 is concerning MSEs' capacity to provide job opportunity. Hence, respondents were asked if their enterprises have capacity in creating job opportunities. As a result 87(58.8%) respondents reported that their enterprises have become a source of job to others while the remaining 61(41.2%) were not in a position to create job opportunities. Indeed this implies that the majority of MSEs in Sayilem district are job providers and creators though it is not sufficient.

In fact MSEs have been an argument for many researchers, policy makers, and it is the focus of current government that MSEs are expected to be a major playing field of creating employment and enhancing economic growth. In connection to this, respondents whose enterprises didn't create job opportunity were asked again to point out constraints that limit their enterprise performance in creating adequate job.

Accordingly the major challenges were found to be shortage of capital, infrastructure (access to road) problem, power related problems, lack of formal banking service, decline in sales, lack of government support, and lack of credit provision.

In similar way key informants interview have also agreed with what the enterprises that have created job opportunities especially the merchandize and retail shop (trade) enterprises are better in creating employment opportunities because they are transformed from the micro level

to small enterprise level within a short period of time much of by their own efforts without frequent government support and follow up their activities.

4.3.10. MSEs Capacity in Generating Income

Table 4.15: Income generating capacity of MSEs

Income level after starting a	Frequency	Percentage
Increasing	102	**68.92**
Not increasing	46	**31.08**
Total	**148**	**100.0**

Source: Own survey (2021)

- **Income generating capacity of MSEs**

The study has also assessed income generating capacity of MSEs, for this reason respondents were asked if their income level is increased or not after owning a business. Accordingly, as it is indicated in table 4.15, 102(68.92%) of the respondents reported that their income level was increased, 46 (31.08%) respondents reported Not increasing .This indicates that the majority of MSEs were not found in a position to provide adequate income to their operators/owners. In closing, it can be said that MSEs' capacity in generating income is not sufficient enough to alleviate poverty hence, government, operators, and other concerned body should have to work together to enhance capacity of MSEs in generating adequate income in Sayilem district.

4.3.11. The Capacity of MSEs in Poverty Reduction

Table 4.16: Capacity of MSEs' in poverty reduction

How do you assess your enterprise's contribution in poverty reduction?	Frequency	Percentage
High	19	**12.8**
Medium	78	**52.7**
Low	51	**34.5**
Total	**148**	**100.0**

Source: Own survey (2021)

- **Capacity of MSEs' in poverty reduction**

In recognition of MSEs' contribution to poverty reduction, the national MSEs development strategy has been formulated for the first time by the Ethiopian government to alleviate the problem of nation – wide poverty and promote the growth of MSEs (MoTT, 1997).

Having said the above, the study also assessed to what extent MSEs do alleviate poverty by providing employment opportunities. Finding in table 4.16 shows that 19 (12.8%) of the respondents reported that their enterprises contribution to poverty reduction is high, and 78(52.7%) of the respondents reported medium. On the other hand, 51(34.5%) of the respondents highlighted that capacity of MSEs in fighting against poverty is low. Hence, based the findings it is possible to infer that MSEs are well acknowledged and can be considered as tools for poverty reduction through providing jobs.

Respondents who believed and reported that their enterprises which could have low capacity in poverty reduction were asked. Accordingly, the main factors hampering not to alleviate poverty were mentioned as; low profit due to fluctuate in sales volume, high cost of renting, high tax rate as a result of inaccurate tax assessment, shortage of capital, lack of credit provision, poor business location , infrastructure (access to road) problem etc.

Table 4.17: Constraints of MSEs performance

Major Constraints	Degree of severity
Problem of road access	**High**
Power interruption	
Lack of backing services	
Limited infrastructural facility	
Limited government support	
Limited credit provision	
Unfair tax assessment	
Shortage of capital	
Lack of skilled man power	
High cost of input	
High cost of living	
Lack of working premises	**Medium**
Poor business location	
High cost of rent	
Lack of market demand	
Lack of market information	
Limited training	
Illegal trade activity & absence of fair	**Low**
Shortage of raw material	
Limited transportation	

Source: Own survey (2020)

Respondents that reported the existence of constraints were further asked to identify the major challenges of their enterprises performance. Accordingly the major challenges that have been reported by the respondents are ranked according to their degree of severity in above table of 4.17.

Key informants were also interviewed to mention the major challenges impeding performance of MSEs after they have agreed with their existence. With this regard, key informants identified the major problems as internal once such as lack of education, lack of marketing skills, lack of proper record keeping, limited entrepreneurial skills etc. and the external factors such as limited market-linkage, lack of working premises, limited range of government support, infrastructural problem etc. were reported as major constraints of MSEs in Sayilem district.

4.3.13. Performance (Profit as measured by the total sales minus total costs)

Table 4.18: Performance status of MSEs

Profitability of MSEs as measured by the total sales minus total costs.	Frequency	Percentage
Profitable	95	**64.19**
Survival	-	-
Loss	53	**35.81**
Total	**148**	**100 .0**

Source: Own survey (2021)

- **Performance status of MSEs**

The study sought to evaluate the performance status of MSEs in Sayilem district. The descriptive analysis in table 4.18 shows that 95 (64.19%) of the respondents confirmed that their business was operating at profits.

However, 53 (35.81%) of the respondents reported that their enterprise performance level was found to be operating at losses. This implies that the majority of MSEs in the study area were in a good performance level. More efforts should be made to enhance the performance of MSEs' profitability in order to contribute to income generating, creating employment opportunity, and poverty reduction in Sayilem district.

Apart the data collected from the operators of MSEs, key informant interview have also offer equally important view on the performance of the MSEs especially in the merchandize and retail shop (trade) sector were able to perform better and the first one than rural agriculture and wood and metal work. Because of their own effort and good creativity and hard working in both profitability and employment creation opportunity than other sector of rural agriculture and wood and metal work. According to this rural agriculture was the second one next to merchandize and retail shop (trade) in profitability and on the other hand wood and metal work sector where the last profitability sector from them.

However, key informants have also pointed out enterprises that have low performance because of lack of adequate capital, lack of government support, lack of adequate infrastructure (road, water supply), lack of banking service, lack of credit access, lack of entrepreneurial skills and others.

4.4. MSEs Performance and external related factors

External factors are the other group of factors that can affect the Performance of MSEs. In this study nine external factors were identified to explain their effect on the Performance of the surveyed MSEs. This part of the study also examines the most external determinants affecting performance of MSEs. In addition to data obtained through questionnaire, an interview has also made with the key informants group with the aim to contribute to a better understanding of how certain external related factors determine the performance of MSEs such as age of the operator (AGE OPR), gender of the operator (GEND OPR), education level of the operator (EDL OPR), amount of initial capital (AM IN CAP), access to credit (AC CRED), access to market (AC MARK), access to training (AC TR), Level of market competition (LV O MR CPT), government policy and regulation (GO PL REGU).

4.4.1. Factors Related to Government Policies and Regulation

Table 4.19: Impact of government policies and regulation

Item		
Does the current government policies & regulation adversely affect your business?		
Alternatives	Frequency	Percentage
Yes	108	73.0
No	40	27.0
Total	148	100.0
If your answer is yes what are the government policies & regulation related factors?		Rank
Limited access to credit	127	1st
High & unfair tax imposition	119	2nd
Lack of working premises	103	3rd
Limited access to training	81	4th
Lack of policy encouragement related	76	5th
Excessive rules & regulation related	58	6th
License & registration related	49	7th

Source: Own survey (2021)

- **Factors Related to Government Policies and Regulation**

Government policies and regulations may have an impact on the performance of MSEs. For example a study done by International Finance Corporation (IFC, 2013) based on responses of more than 45,000 firms in developing countries found that the top obstacles to their operations were government(legal & regulatory) related factors(IFC,2013) cited in (Bouazza A., 2015). Moreover, Admasu (2012) in his study has also noted that lack of government support was one of the problems that affect the performance of MSEs. Therefore, having said this, findings of this research (table 4.19) reveals that 108 (73.0%) of the respondents were generally reported that government policies and regulation was not found to be favorable to their business operations and they didn't get any incentive support from government.

Whereas only 40 (23.0 %) were not affected by government policies and regulation related factors in operating their business activities. Given this outcome one can infer that government support policies and regulations is not found to be in favor of MSEs in the study area and this may have an adverse effect on the performance of MSEs in creating employment opportunities, generating income, and poverty reduction.

A discussion made with the key informants interview regarding the nature of government policies and regulations on MSEs Performance have agreed on the government support and the attention given to MSEs is limited. There was no regular follow-up and supervision on their performance of activities.

In relation to this respondents who had reported challenges and constraints related to government policies and regulations were asked to list briefly the main factors that have had adverse effect on their business operations. The responses are summarized and presented. The main factors were ranked according to the response given in table 4.19. Given the outcome of the findings indicates that the first, second and third ranked found to be Limited access to credit, High & unfair tax imposition, and Lack of working premises respectively were the major government policies and regulations related factors affecting performance of MSEs in the study area of Sayilem district.

4.4.2. Factors Related to Access to Formal Credit

Table 4.20: MSEs Access to credit

Item		
Does your enterprise access to formal credit?		
Alternatives	Frequency	
Yes	21	14.2
No	127	85.8
Total	148	100.0
If your answer is No what is the reason for not having access to credit?		Rank
The granted loan is inadequate	113	1st
High complexity & procedure	109	2nd
Lack of collateral	91	3rd
Interest rate is high	74	4th
I don't want credit at all	21	5th
Financial institutions are reluctant to give credit to MSEs	18	6th

Source: Own survey (2021)

- **MSEs Access to credit**

Lack of access to external financing is considered as a major challenge to the performance of MSEs and it has accounted for high rates of failure among those MSEs (Bouazza A., 2015). Moreover, James K. (2013) has also noted that all business ventures regardless of size require finance from inception and throughout their life cycles. Lack of access to credit was reported as the main bottleneck facing performance of MSEs. In light of this respondents were asked if they have access to credit since starting their business, with this regard as it can be revealed in table 4.20 inform that 21 (14.2%) and 127 (85.8%) of the respondents have access to credit and did not have access to credit respectively.

This implies that the majority of MSEs in Sayilem district had not access to credit. Thus, the positive expectation of MSEs' performance and their production capacity cannot be achieved due to limited access to financing.

In light of the above findings, an interview has also made with the key informants on the issue of credit facilities given to MSEs.

They agreed that the loan given to MSEs' is not adequate and all enterprises did not have equal access to credit due to lack of collateral requirements, policy related requirement and procedures of the financial institutions, and capital shortage by the lending institution particularly microfinance institutions.

With regard to access to credit, respondents that have never accessed credit were asked their inability to access credit. Accordingly, the finding obtained is presented and ranked in table 4.20 above which shows that respondents' main reason for not having access to credit is ranked as first, second, and third representing granting insufficient loan, high complexity and procedures, and lack of collateral respectively.

4.4.3. Factors Related to Access to Training

Table 4.21: Operators of MSEs and their access to training

Item	Alternatives	Frequency	Percentage
Have you ever taken training on business related skills before & after you started a business?	Yes	67	45.3
	No	81	54.7
	Total	148	100.0

Source: Own survey (2021)

- **MSEs Access to training**

Adequate provision of overall entrepreneurship training may place the operator in a better position to make sound business related decisions and forecast the future of business conditions of uncertainty that will have an impact on the performance of MSEs (Mesfin,2015).

Additionally Tassew et al (2015) in their study found that access to training was an important factor determining the survival and performance of MSEs. In light of this table 4.21 depicts the availability of training business related skills given to operators of MSEs. With this regard 81(54.7%) of the respondents have not provided with any form of training since and before they started their business but the remaining 67(45.3%) have taken training.

Furthermore, the interview made with the key informants provided similar responses on the issue of access to training is limited because of lack of linkage and educated trainer man power that provides entrepreneurship training to MSEs operators. Thus given the findings the vast majority of operators of MSEs in the study area did not have access to training.

Therefore, creating conducive climate to access operators of MSEs to entrepreneurial training is crucial if the sector (MSEs) is expected to be a means of poverty reduction and creating employment opportunity in general and increase the performance of MSEs in particular.

4.4.4. Factors Related to Market Competition

Table 4.22: level of market competition

Item		
Does the current level of market competition affects negatively to your enterprise capacity in generating adequate profits?		
Alternatives	Frequency	Percentage
Yes	86	58.1
No	62	41.9
Total	148	100.0
If your answer is yes do you think that the competition is healthy and fair?		Rank
Yes	69	80.2
No	-	-
Unable to decided	17	19.8
Total	86	100.0
Source: Own survey (2021)		

- **Level of market competition**

The performance of MSEs can be affected by the number of firms exist in the market that produce and sell similar products. With regard to market competition (table 4.22), the study observed that about 86(58.1%) of the respondents confirmed the level of competition has created an adverse effect on the performance of their enterprise in generating adequate profits.

However, some or 62 (41.9%) respondents didn't agree with the competition level and its negative impact on the performance of MSEs. Further the respondents who reported high competition level were asked if the competition is fair and healthy. Accordingly 69 (80.2%) of the respondents confirmed that the competition is not found to be fair and healthy.

This indicates that when the number of firms increases from time to time, and the existence of un fair competition may have its own impact on the survival and performance of MSEs in generating adequate profits thereby creating employment opportunity and poverty reduction.

Key informants have also interviewed regarding level of market competition and its fairness. With this regard, they agreed that the competition level among MSEs is high because of engagement in similar trade activities and their number is ever increasing. They also added that the competition is somewhat unfair in terms of selling commodities at lower price and possession of some products illegally which are highly demanded by consumers (e.g. sugar & edible oil) due to creating special relationship with some government officials.

4.4.5. Factors Related to Access to Market

Table 4.23: Access to market

Item		
Does your enterprise have access to market?		
Alternatives	Frequency	Percentage
Yes	81	54.73
No	67	46.27
Total	148	100.0

Source: Own survey (2021)

- **Access to market**

Research done reveals that (e.g. Berihu, 2006; Berihu et al, and Mesfin, 2015) one of the major challenges that hampers the performance and growth of MSEs in Ethiopia was access to sufficient and substantial market. With regard to this, respondents were asked if they had access to market facilities and linkages.

As a result, table 4.23 of the findings shows that 81(54.73%) of the respondents had market accessibility and the remaining 67(46.27%) did not have a market accessibility.

A discussion was also made with key informants concerning MSEs' access to market. Accordingly, key informants said that especially merchandize and retail shop (trade) sector has better market access than others. This is because their products have a permanent consumer customer relationship of daily and time to time. Finally key informants have also put their opinions regarding the performance of MSEs. Therefore, according to key informants; availability of entrepreneurship training to increase the skill of the operators should be given, accessing MSEs to financing to ease the problem of capital shortage, adequate government support to facilitate MSEs transformation to small and medium scales, improved infrastructure facility for better market access, and creating market linkage and access to be MSEs competitive in their product quality and price should be done to increase the future

performance of MSEs. Thus, efforts should be taken by operators, government, and other concerned body in creating conducive climate to market accessibility and market linkage in realization of MSEs's performance.

4.5. Econometric Results and Interpretations

This study uses the performance of MSEs as the dependent variables (Y). Performance of MSEs was measured by:

- Profits as total sales minus total cost and
- Change in employment size (current employee minus initial employee) over Enterprise age.

In this section, the selected explanatory variables were used to estimate the binary logistic regression model to analyze the determinants of MSEs. A number of determinants were considered as independent variables determining performance of MSEs represented as logistic regression model.

4.5.1. Econometrics Diagnostics Tests and Examining the Goodness of Fit of the Model

4.5.1.1. Binary logistic regression model

The binary logistic regression was used to identify the determinant factors and to estimate their potential effect of each explanatory variable on the performance of MSEs by using profit (total sales minus total costs) as dependent variable discussed in chapter three.

- **Econometrics Diagnostics Tests**

F statistics (F-test of overall significance): F- test tests result of the model shows that whether the significance of the multiple coefficients is zero or not. Thus, the F-test P- value is 0.0000 which is statistically significant at less than 1% significance level. Hence, we can reject the null and at least some variables have statistically significant effect on the performance of MSEs (See Annex: 2 and 3).

Annex 2: Binary logistic regression result

```
Logistic regression                             Number of obs     =        148
                                                LR chi2(9)        =      95.49
                                                Prob > chi2       =     0.0000
Log likelihood = -48.799136                     Pseudo R2         =     0.4945
```

Profit	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
sex	3.414251	1.005605	3.40	0.001	1.443301	5.385201
age	-.0288576	.0432273	-0.67	0.504	-.1135815	.0558663
education	-.7107179	.2851803	-2.49	0.013	-1.269661	-.1517748
Capital	-.7647571	.2841783	-2.69	0.007	-1.321736	-.2077778
government	-2.744361	.6338839	-4.33	0.000	-3.986751	-1.501972
Credit	-2.511751	1.191325	-2.11	0.035	-4.846705	-.1767982
Training	-.170569	.5706323	-0.30	0.765	-1.288988	.9478498
Competition	.5861757	.6003829	0.98	0.329	-.5905533	1.762905
Market	-1.25232	.5479442	-2.29	0.022	-2.326271	-.1783696
_cons	12.12969	3.708273	3.27	0.001	4.861611	19.39778

Source: Stata-14 output from survey Data, 2021.

Annex 3: Binary logistic regression result

```
Logistic regression                             Number of obs     =        148
                                                LR chi2(9)        =      95.49
                                                Prob > chi2       =     0.0000
Log likelihood = -48.799136                     Pseudo R2         =     0.4945
```

Profit	Odds Ratio	Std. Err.	z	P>|z|	[95% Conf.	Interval]
sex	30.39417	30.56454	3.40	0.001	4.23465	218.1539
age	.9715548	.0419976	-0.67	0.504	.8926315	1.057456
education	.4912914	.1401066	-2.49	0.013	.2809269	.8591817
Capital	.465447	.1322699	-2.69	0.007	.2666718	.8123875
government	.0642894	.040752	-4.33	0.000	.0185599	.2226907
Credit	.081126	.0966474	-2.11	0.035	.0078542	.8379489
Training	.8431849	.4811486	-0.30	0.765	.2755496	2.580156
Competition	1.797103	1.07895	0.98	0.329	.5540207	5.829345
Market	.2858407	.1566248	-2.29	0.022	.0976592	.8366331
_cons	185292.9	687116.9	3.27	0.001	129.2322	2.66e+08

Source: Stata-14 output from survey Data, 2021.

- **Examining the Goodness of Fit of the Model**

The Hosmer-Lemeshow test of goodness of fit was used to see the overall fitness of the model. Why that it is popular and acceptable by more author. The results of these tests indicated that the model is fitted, no severe multicollinearity, and the normality of data set. There for Hosmer-Lemeshow test were used for other multivariate data analysis techniques, major/ important assumptions or diagnostic tests to check the validity of the data for the current binary logistic regression model.

- **Hosmer-Lemeshow (goodness-of-fit test)**

Which groups cases into declines based upon the predicted probability of each, then assesses the degree to which the observed frequencies match the expected frequencies using a chi-square goodness-of-fit test, and where a non-significant test result suggests a well-fitting model. Additionally, when examining individual predictors, the adjusted odds-ratio (i.e., the exponentiated regression coefficient) associated with each predictor can be evaluated as an effect size.

In this study, Hosme-Lemeshow test summarized the results obtained for the expected to goodness of fitted equation. This statistical test measures the correspondence of the actual and predicted values of the dependent variable. In this case better model fit is indicated by a smaller difference in the observed and predicted classification (Hair et al., 2010).

In our study, the chi-square value for the Hosmer-Lemeshow test is 14.945 is high and significant at 5% (0.05) with a significance level of 0.06. When compared with the critical Chi square 5%, p-value of 0.06 is greater than 0.05. In this case model of goodness of fit is good model then to reject the null hypothesis and accept the alternative hypothesis. Because computed Chi-Square (0.06) is higher than the critical Chi- square(0.05), to conclude that the predictor six variables are significantly associated to the performance of MSEs (field, 2021), (See Annex: 4).

Annex 4: Hosmer - Lemeshow test

Hosmer- Lemeshow Test			
Step	Chi-square	df	Sig.
1	14.945	8	.060

Source: Stata-14 output from survey Data, 2021.

Therefore according to indicating support for the model of (Pallant, 2011; Hair et al., 2010; and Tabachnick and Fidell, 2007), so we can conclude that the Goodness of fit of the model assumption is met.

- **Multicollinearity test**

An important assumption is that independent variables are not perfectly multicolinear. One regressor should not be a linearly with each another. Prior to the estimation of the model parameters, it is crucial to look into the problem of multicollinearity or association among the independent variables. To this end, the variance inflation factor (VIF) was used to test the degree of multicollinearity among the independent variables for both continuous and dummy variables. All the tested variables were found to be VIF of less than 10 indicating no multicollinearity problem because according to the rule of thumb a VIF greater than 10 indicates trouble (See Annex: 6).

Annex 6: Multicollinearity test for all variables by logit

Variable	VIF	1/VIF
sex	1.73	0.577479
age	1.55	0.644812
Competition	1.42	0.705856
Training	1.30	0.769193
education	1.27	0.788346
Capital	1.24	0.804951
Credit	1.21	0.826771
Market	1.20	0.834967
government	1.18	0.848592
Mean VIF	1.34	

Source: Stata-14 output from survey Data, 2021

- **Model Summary**

Model Summary gives us another piece of information about the usefulness of the model. The Cox & Snell R Square and the Nagelkerke R Square values provide an indication of the amount of variation in the model (independent variables in the model). values that you will see provided in the Logistic regression output are available .That is measures similar to R^2, called pseudo R^2 are available Gujarati, D. N. 2004. The higher the pseudo R-squared (R^2) statistics, the better the model fits our data, MSEs Profitability with less than 5% of significance level.In the result of is -2 Log likelihood statistics measures how better the model predicts the decisions, which is smaller the statistic the better the model. That is Cox & Snell R2 (i.e. 0.475) can be interpreted like R2 in a Logistic regression but cannot reach a maximum value of 1.

Also, looking the Nagelkerke R Square = 0.652 about 65.2 % of the variation in response variable is explained by the explanatory variables. The rest is left for random variation or error. In this example, the two values are .475 and .652, suggesting that between 47.5 percent and 65.2 per cent of the variability is explained by this set of variables (Pallant,2011).

This supported by Nagelkerke (1991) suggested the subsequent adjustment (Nagelkerkes R^2_N) all of the measures differ in their computation conceptually they are somewhat the same. As a result (Field, 2021) , in terms of explanation they can be seen as similar to the R^2 in Logistic regression in that they provide a test of the substantive significance of the model (See Annex: 5).

Annex 5: Model Summary

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	97.598[a]	.475	.652
a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.			

Source: Stata-14 output from survey Data, 2021.

4.5.1.2. Multiple linear regression model

- **Model goodness-of-fit test**

In multiple linear regressions, Durbin-Watson R2 (i.e. 0.473) can be interpreted like R2 in multiple regression but cannot reach a maximum value of 1. Also, Standard-error of the estimate = 0.85477 about 85.5 % of the variation in response variable is explained by the explanatory variables. In this example, the two values are 0.473 and 0.85477, suggesting that between 47.3 percent and 85.5 per cent of the variability is explained by this set of variables (Pallant, 2011).As a result (Field, 2021), in terms of explanation they can be seen as similar to the R^2 in multiple linear regression in that they provide a test of the substantive significance of the model (See Annex: 7).

- **Autocorrelation test**

For any two observations the residual terms should be uncorrelated with each other. This eventually is sometimes described as a lack of autocorrelation. This assumption was tested with the Durbin-Watson d statistics which tests for serial correlation between errors.

This is the most celebrated test for detecting correlation developed by statisticians Durbin and Watson. The test statistics for this can vary between 0 and 4 with the value of 2 meaning that the residuals are uncorrelated.

A great advantage of the d statistic is that it is based on the estimated residuals, which are routinely computed in regression analysis. Because of this advantage, it is now a common practice to report the Durbin–Watson d along with summary measures, such as R square, adjusted R square, Std. error of the estimate. If there is no serial correlation; d is expected to be about 2. Therefore, as a rule of thumb, if d is found to be 2 in an application, one may assume that there is no autocorrelation, either positive or negative (Guajarati, 2004).

From the regression result shown that the Durbin-Watson d statistics for the current study is 1.694 which is approximately near to 2, so we can conclude that the autocorrelation assumption is met or the residual terms are uncorrelated. (See Annex: 7).

Annex 7: Model summary for growth

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.688[a]	.473	.439	.85477	1.694

a. Predictors: (Constant), Access to market, education, age, Initial capital, Government policy, Level of market competition , Access to training, sex, Access to credit

b. Dependent Variable: Growth

Source: Stata-14 output from survey Data, 2021.

- **Multicollinearity test**

An important assumption is that independent variables are not perfectly multicolinear. One regressor should not be a linearly with each another. Prior to the estimation of the model parameters, it is crucial to look into the problem of multicollinearity or association among the independent variables. To this end, the variance inflation factor (VIF) was used to test the degree of multicollinearity among the independent variables for both continuous and dummy variables. All the tested variables were found to be VIF of less than 10 indicating no multicollinearity problem because according to the rule of thumb a VIF greater than 10 indicates trouble (See Annex: 6 and 8).

***Annex 6**: Multicollinearity test for all variables by logit*

Variable	VIF	1/VIF
sex	1.73	0.577479
age	1.55	0.644812
Competition	1.42	0.705856
Training	1.30	0.769193
education	1.27	0.788346
Capital	1.24	0.804951
Credit	1.21	0.826771
Market	1.20	0.834967
government	1.18	0.848592
Mean VIF	1.34	

Source: Stata-14 output from survey Data, 2021.

*Annex **8**: Multicollinearity test for all variables by OLS*

Variable	VIF	1/VIF
Credit	2.00	0.499879
sex	1.64	0.610529
Market	1.59	0.628257
Training	1.56	0.640804
age	1.56	0.643073
government	1.30	0.766945
education	1.21	0.828024
Competition	1.21	0.829253
Capital	1.14	0.879653
Mean VIF	1.47	

Source: Stata-14 output from survey Data, 2021.

4.6. General Regression Analysis

As indicated in the econometric model specification of this paper, hypothesized variables which were thought to determine the performance of MSEs were tested using binary logistic regression and multiple linear regression model. Here; nine (9) independent variables which are(Age of the operator, Access to credit, Amount of initial capital, Gender of the operator, Educational level of the operator, Government policy and regulation, Level of market competition, Access to market and Access to training were entered into the model.

The dependent variable is the performance of MSEs which was measured by profits (total sales minus the total costs) and labor growth (i.e. employment size of current employment minus initial employment over enterprise age). (See Annex: 2 (3) and 9).

4.7. Discussion for Findings

4.7.1. Discussion for findings of binary logistic regression model

As output of the binary logistic model indicates that from candidate explanatory variables, 6 explanatory variables (Gender of the operator, Educational level of the operator and Amount of initial capital from internal factors and the rest Access to credit, Access to market and Government

policy and regulation from external factors) are significantly affecting the probability of MSEs performance at less than 5% level of significance out of 9 variables. Whereas the rest 3(Age of the operator, Access to training and Level of market competition) variables were found to have no significant influence on performance of MSEs in study area (See Annex: 2 and 3).

Accordingly, the contribution of each significant explanatory variable is discussed below by supporting with empirical evidence. The "*B"* coefficient value which indicates the direction of relationship and also odds ratio indicate the value of variation. Likewise the *P* values also showing the level of significant for each independent variable were used for discussion purpose (See Annex: 2 and 3).

- **Gender of the operator**

Gender of the operator result show positive and statistically significant with odds ratio of 30.394 and p value 0.001 at 1% level of significance. This implies that the performance of MSEs that are headed by male operators is 30.4 times higher than the female headed by counterparts. Similarly, the marginal effect of this variable shows that the performance of MSEs for male headed increase by 341.43% as compared to female headed MSE, the reverse is true. This implies that the alternate hypothesis is accepted. The result is consistent with the findings Menzies (2004) as cited in Tassew et al (2015) found that hardly any differences between male and female owned enterprise on their performance level.

- **Education level of the operator**

Education level of the operator factors result show that there is a negative and significant relationship between education and performance of MSEs as measured by profit with an odds ratio of 0.4913 and p value of 0.013 at 5 % significance level. This indicates that performance of MSEs declines by 49.13 % when the willingness of the operator for educated trainers with their steps of educational status increases by 1 unit keeping the other factors remain constant (MSEs these have educated trainers problems grow by 49.13 % less when compared to MESs these have not educated trainers problems) keeping the other factors remain constant. The fact that is the time is the globalization and advertising itself with new technology and knowledge, rather than the problem of education leads to a decline in profit of MSEs.

This implies that the alternate hypothesis is accepted. On survival rate of enterprises, studies found that firms having more highly educated owners were more likely to survive (Tassew et al, 2015; Solomon, 2004).

- **Amount of initial capital**

Adequate amount of initial capital at startup of the enterprise shows with p value of 0.007 and an odds ratio of 0.4654 are statistically negative and significant at 1 % significant level. This implies that the performance of MSEs declines by 46.54 % when the willingness of the operator for amount of initial capital increases by 1 unit (MSEs these have access to amount of initial capital problems grow by 46.54 % less when compared to MESs these have not access to amount of initial problems) keeping the other factors remain constant. For better performance and its survival in business operation sufficiency of initial capital is crucial. Hence, sufficiency of initial capital in time of starting a business was found to be a relevant factor to affect the performance of MSEs in Sayilem district.

The result implies that the alternate hypothesis is accepted. Better financial access for SMEs contributes to economic growth, reduced income inequality and reduced poverty (World Bank 2008; cited in Francis and Dedan, 2015).

- **Access to credit**

Access to credit result show that there is a negative and significant relationship between access to credit and performance of MSEs with an odds ratio of 0.0811 and p value of 0.035 at 5 % significance level. This indicates that performance of MSEs declines by 8.11% when the willingness of the operator for access to credit increases by 1 unit (MSEs these have access to credit problems grow by 8.11% less when compared to MESs these have not access to credit problems) keeping the other factors remain constant. This implies that the alternate hypothesis is accepted. Enterprises that have access to formal credit are expected to grow faster than those that have not (Solomon, 2004).

- **Access to market**

Access to market that the result indicates there is a negative and significant relationship between access to market and performance of MSEs with an odds ratio of 0.2858 and p value

of 0.022 at 5% significance level. This indicates that performance of MSEs declines by 28.58% when the interest of the operator for access to market increases by 1 unit (MSEs these have access to market problems grow by 28.58 % less when compared to MSEs these have not access to market problems) keeping the other factors remain constant. This implies that the alternate hypothesis is accepted.

The result is consistent with the findings Asma Benzazoua (2015) in his study has also noted that lack of access to external financing was considered to be a major challenge to the performance of MSEs, and it has accounted for high rates of failure among those who had not access to finance. Lack of marketing skills like interpersonal communication, creativity and expression, computer skills and others has a negative impact on the performance of enterprises.

According to this the market related problems are High competition, Shortage of supply of raw materials, inadequate market for product/service, few marketing days and Poor customer relationships and handling.

- **Government policies & regulation**

Government policies & regulation result show that there is a negative and significant relationship between performance of MSEs with an odds ratio of 0.0 643 and p value of 0.000 at 1% significance level. This implies that MSEs which have not government regulation problem would grow 6.43% higher than these MSEs which have government regulation factors, Keeping the other factors remains constant. This implies that the alternate hypothesis is accepted. The result is the same with the findings of a study carried out by Ngu Ono et al (2014) revealed that government policies and regulation related factors such as bureaucratic procedures in lending terms, business licensing and registration, high tax rate, and lack of government incentives have negatively influenced the performance of MSEs.

- **Final model finding**

The estimated final model with all the predictors of binary logistic regression model has the following form:

$$\log(\boldsymbol{Odds}) =$$
$$12.969 + 3.414251 * Gender\ of\ the\ operator - 0.0288576\ *\ Age\ of\ the\ operator -$$
$$0.7107179 * Educational\ level\ of\ the\ operator - 0.7647571 *$$
$$Amount\ of\ initial\ capital - 2.744361 * Government\ policy\ and\ regulation -$$
$$2.511751 * Access\ to\ credit - 0.170569 * Access\ to\ training - 0.5861757 *$$
$$Level\ of\ market\ competition - 1.25232 * Access\ to\ market.$$

4.7.2. Discussion for findings of multiple linear regression (OLS) model

The another output of the multiple linear regression result (OLS) indicates that 4 explanatory variables (Access to credit, Government policy and regulation, Level of market competition and Access to training) are significantly affecting labor growth of MSEs Performance at less than 5% level of significance out of 9 variables. Whereas the rest 5(Age of the operator, Gender of the operator, Educational level of the operator, Amount of initial capital and Access to market) variables were found to have no significant influence on employment growth of performance of MSEs in study area (See Annex: 9).

Annex 9: *Multiple regression result*

Source	SS	df	MS	Number of obs	=	148
				F(9, 138)	=	13.78
Model	90.6366447	9	10.0707383	Prob > F	=	0.0000
Residual	100.827882	138	.730636829	R-squared	=	0.4734
				Adj R-squared	=	0.4390
Total	191.464527	147	1.30247978	Root MSE	=	.85477

Growth	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
sex	.1493735	.2184361	0.68	0.495	-.2825409	.5812879
age	.0007529	.0111126	0.07	0.946	-.0212201	.0227259
education	.0052265	.06346	0.08	0.934	-.1202532	.1307062
Capital	-.0779413	.0723764	-1.08	0.283	-.2210515	.0651689
government	.4423087	.186999	2.37	0.019	.0725549	.8120625
Credit	.970378	.2188872	4.43	0.000	.5375715	1.403184
Training	.4285569	.1874988	2.29	0.024	.0578149	.7992989
Competition	.3827784	.1623556	2.36	0.020	.0617522	.7038047
Market	.1034048	.2012182	0.51	0.608	-.2944647	.5012743
_cons	-2.296748	.4870695	-4.72	0.000	-3.259832	-1.333663

Source: Stata-14 output from survey Data, 2021.

- **Government policies and regulation**

Government policy which encourages expansion of MSEs and provision of support in the form of credit provision, technical training, removal of trade barriers, lowering tax rate at startup, and creating conducive environment for promoting MSEs performance can contribute to employment opportunities and poverty reduction. The econometric result (Annex:9) indicates that there is a significant and positive relationship between employment growth and government support policy to MSEs' related rules and regulations with p - value of 0.019 at 5% significance level. This indicates that if other variables hold constant, a 1 unit increase in continuous government support and incentives, performance of MSEs as measured by labor growth increases by 0.4423 units. This implies that the alternate hypothesis is accepted.

An increase in government support and subsidies given to MSEs leads to an increase in Labor growth of MSEs. Hence, government support is found to be very important factor in influencing the performance of MSEs in the study area. The null hypothesis stated as there is a significant relationship between government policies and regulation, and performance of MSEs was accepted.

This finding is similar with Admasu (2012), Mohammed et al (2013) and Mbugua (2014).

- **Access to credit**

Academicians and practitioners have been paid their full attention to limited access to credit because a better financial access for MSE contributes to performance of MSEs thereby economic growth. Equally, as it is indicated in table (Annex: 10) access to credit is found to be statistically positive and significant factor influencing Labor growth of MSEs in the study area with p- value of 0.019 at 1% significance level implying when access to credit by MSEs increases by 1 unit, performance of MSEs as measured by labor growth increases by 0.9703 unit when the operators have access to credit than not access keeping other variables constant. This is true that credit requirements at startup, growth, and maturity stages is significant factor in determining performance of MSEs that calls for intervention of government and other concerned body in the area.

Therefore, having a better access to credit enables the firm greater production which increases performance of MSEs and can create a significant difference between those who have credit access and those who do not have. Thus, the null hypothesis which was stated existence of positive and significant relationship between access to credit and performance of MSEs was accepted.

This finding is similar with the research findings carried out by Mbugua (2014), Anne Nigma (2014), and Francis and Dedan (2015).

- **Access to training**

New business entrants should be equipped with business skill related training and know how such as business plan, creativity and product modification, record keeping etc. can play a significant role in determining performance of MSEs.

Therefore, as expected it is statistically found to be positive and significant relationship between access to training and performance of MSEs with p- value of 0.024 at 5 % significance level. The implication is that when operators increase their access to training with the skill needed by 1 unit, performance of MSEs as measured by labor growth increases by 0.429 unit if other factors held constant. Thus, the more and the frequent of training availability the more and the better wound be the performance of MSEs. Performance of MSEs increases when operators have access to training provided by government, other concerned body or formal TVET institutions. The null hypothesis which states there is a positive and significant relationship between access to training and performance of MSEs was accepted. (See, Annex: 9).

This finding is also similar with Ranjith and Dayavanda (2014).

- **Level of market competition**

As (Annex:10) indicated there is a positive and significant relationship between market competition level and performance of MSEs as measured by labor growth with p- value of 0.02 at 5 % significance level. This indicates that when market competition by MSEs Increases by 1 unit, performance of MSEs as measured by labor growth increases by 0.383 unit keeping other variables constant. The fact that is as the number of firms increase from time to time the competition among them becomes intense hence price and demand declines as buyers have more choices and this leads to a decline in profit. The null hypothesis which was stated as inverse relationship exists between level of market competition and performance of MSEs is accepted.

This finding is similar with the finding of W/gebriel (2012).

- **Final model finding**

The estimated final model with all the predictors of multiple linear regression (OLS) model has the following form:

$$Y_i = -2.297 + 0.1494 * Gender\ of\ the\ operator + 0.0007529 * Age\ of\ the\ operator + 0.005227 * Educational\ level\ of\ the\ operator - 0.0779 * Amount\ of\ initial\ capital + 0.4423 * Government\ policy\ and\ regulation + 0.9704 * Access\ to\ credit + 0.4286 * Access\ to\ training + 0.3828 * Level\ of\ market\ competition + 0.1034 * Access\ to\ market.$$

CHAPTER FIVE

5. CONCLUSION AND RECOMMENDATION

5.1. Conclusions

MSEs is one of the institutions given recognition in Ethiopia's industry development plan and it considered as vehicles for employment opportunities at urban and rural centers and as it support the economic development as well as serves as sources for sustainable job opportunities for unemployed youth. But there are multifarious factors that emphasize the success of MSEs Performance at all.

In light of this study findings on determinants of MSEs performance in Sayilem district are based on internal (age of the operator, education level, gender and amount of initial capital) and on external (access to market, access to credit, access to training, level of market competition and government policies and regulation) variables are closely associated with characteristics of economic, institutional and demographic characteristics factors with the objective to investigate performance and major determinants of MSEs. Based on descriptive and econometric analysis the following conclusions are worth drawn for major findings of the study.

The descriptive result of the study shows that the majority of the operators of MSEs were male. However, the participation of women in business activity is limited in the study area. Most of the operators have been attained their educational qualification of high school and elementary. This implies that majority of the operators are less in higher academic qualification hence they are generally less educated lacking the skills and knowledge that comes from higher formal education that is significant in managing and enhancing their business performance effectively. It was also observed that most of the enterprises have been in operation for about the last 2 years and when they have been started their initial capital was Birr 15000 and have less to meet their willingness. This implies that MSEs activities and establishments is a recent one and given the limited startup capital achieving the operators plan and capacity in generating profits or labor growth would be difficult as they were faced problem of insufficient startup capital.

The status of MSEs in generating labor growth or profits is found to be decreasing to most of the enterprises because of the associated factors of declining sales, declining demand, increased competition and other factors. This may have a negative implication for creating job opportunity, generating income, and poverty alleviation in the study area if labor growth or profits continues to fall further.

The finding of this study indicates that the vast majorities of the enterprises have become a source of employment and tools of poverty alleviation. This implies that the problem of poverty and unemployment can be addressed in the long run if performance of MSEs is improved in the study area.

The descriptive result also indicates that challenges of power interruption, limited infrastructural facility (road), lack of banking service, unfair tax assessment, limited government support, limited access to credit, high cost of rent for house, shortage of capital etc.Were found to be the top constraints economically and institutionally impeding performance of MSEs not to generate adequate profits (labor growth), and create job opportunity, and poverty alleviation to the majority of the enterprises. Therefore, all MSEs couldn't address the issue of generating adequate profit (labor growth) in particular and creating employment opportunity, and poverty reduction in general because of the aforementioned constraints.

The study also confirmed that the majority of MSEs Performance was found to be good because of total sales exceeds total costs implying operating at profits. Hence, MSEs can contribute to address the problem of unemployment and poverty.

Likewise the study also addressed that most of MSEs Performance was a good result with increasing labor growth, because of current employment exceeds initial employment. Hence, MSEs can also contribute to address the problem of unemployment and poverty.

The other result obtained from the study is that almost above half of the operators in this study have confirmed that the location of their business was good enough to boost their business performance and attract customers. Attractive operating location can improve the performance of MSEs in generating adequate profits and will have implication for access to financing, customer accessibility, and competition.

With regard to government policies and regulation, the operators reported that they have been adversely affected by high tax burden, lack of working premises, limited access to training and other related factors. Thus, the expected performance of MSEs cannot be achieved and facilitated in the absence of government support as the majority of MSEs have been faced with government related factors in the study area.

The study also noted that majority of MSEs didn't have access to formal credit. Moreover access to credit was found to be negative in profit measurement but positive in labor growth and significant in determining performance of MSEs. Since due to their establishment time there is existing factors of loan insufficiency, high complexity and procedures and lack of collateral. Thus, without access to credit startup, expansion and production capacity of MSEs cannot be improved. Generally the findings show that MSEs access to credit is limited that need to be addressed by the concerned body to improve performance of MSEs.

The finding also indicates that most of MSEs have been affected by the high and unfair market competition. The existence of high and unfair competition may have its own impact to firms who produce and sell similar products on their profits. Hence, to facilitate the overall performance of MSEs, creativity and product modification is crucial.

Another finding worthy of attention is the issue of access to training. Accordingly the majority of the operators have never been trained in the kills needed to manage their business effectively before and after started a business. This implies that entrepreneurial training in the study area is limited because of lack of educated trainers of man power. Therefore, entrepreneurial training facilities can have implication as it impedes performance of MSEs in generating adequate profits. Furthermore with regard to use of modern technological capacity, almost half of the operators of MSEs didn't use technology related equipment and machineries in their business operation because of shortage of money and lack of skills to choose and how to use appropriate technology related constraints. This implies that lack of application of technology related equipment in business can have an adverse effect on the performance of MSEs in generating profits because the productivity and efficiency cannot increase.

The study also confirmed that almost half of the MSEs did not have access to market and market linkage with other institutions for their product. This can be a bottleneck for quick expansion and growth of the enterprises as a better market access is crucial for the performance of MSEs.

In general, the econometric result of logistic regression shows that gender of the operator, education level of the operator, access to credit, access to market, government policies and regulation and amount of initial capital were found to be significant factors determining performance of MSEs. However, age of the operator, access to training and level of market competition were not found to be statistically significant to affect performance of MSEs in Sayilem district.

The another econometric result of OLS also shows that Government policy & regulation, access to credit, access to training and level of market competition to be a significant factors that to determining performance of MSEs, were as the rest (age of the operator, gender of the operator, education level of the operator, amount of initial capital and access to market) were not statistically significant to affect performance of MSEs.

Therefore, attention should be given by the policy makers and other concerned bodies to develop supportive programs and corrective measures to ease the constraints and difficulties facing performance of MSEs in Sayilem district.

5.2. Recommendations

Having identified the major determinants of MSEs Performance in Sayilem district, it is possible to forward some policy implications that the government, MSEs Operators, and other concerned body are responsible for further improvement of MSEs in the study area.

Some of the MSEs were not found in a position to provide adequate profits, create jobs, and reduce poverty because of declining sales, high cost of rent for house, high tax rate, lack of capital, limited credit, limited government support, low market demand, and limited infrastructural facility.

Therefore, to improve the overall performance and capacity of MSEs for generating profits in particular, creating job opportunity thereby and alleviation poverty in general; governments, policy makers, donors, financial institutions and operators of MSEs should pay attention on overcoming the major constraints facing performance of MSEs.

The finding reveals that most of the operators of MSEs have used personal savings and from relatives when they faced problem of insufficient startup capital in time of starting their business because they found it very difficult financing from banks and microfinance institutions due to lack of collateral, loan insufficiency, high complexity and procedures. Moreover access to credit was found to be negative in profit measurement but positive in labor growth and significant in determining performance of MSEs.

The study therefore, recommends banks, microfinance institutions, governments, and other donor bodies should work together hand in hand to improve and implement policies and strategies for accessing MSEs to financing and improving the financial strength of microfinance institutions to increase their capacity in granting loans to increase the production capacity of MSEs there by generating adequate profits.

It has been found that MSEs have been faced problems of limited government support, lack of infrastructural facility, shortage of capital, limited access to credit, and unfair tax assessment. Therefore, the study recommends that improved provision and expansion of the necessary infrastructural facility such as uninterrupted power and water supply, convincing road access, facilitated banking system, providing assistance to MSEs such as training, creative conducive climate for accessing MSEs to credit, fair tax system should be undertaken to facilitate the effectiveness of MSEs performance.

In relation to gender composition of MSEs operation, the number of women participation and their performance in business activity was found to be low. Therefore, this study recommends that the government and other concerned body should take initiatives and efforts of affirmative action, access to training, access to women biased credit, motivation, should be taken to address their low performance in business and empower them to become self–employed and qualified

in business activity in realization of creating job opportunities and poverty reduction in Sayilem district.

The study noted that government policy and regulation was not found in favor of MSEs. Moreover, it was found to be statistically negative in profit measurement but positive in labor growth and significant to affect the performance of MSEs. As the legal and regulatory frame work plays a significant role in improving the smooth operation of MSEs, the government should encourage and simplify the government policy and regulation related factors impeding performance of MSEs. Therefore, the study recommends that policy makers should strengthen the government policies and regulatory framework in favor of MSEs to create conducive climate, special priority assistance, and MSEs based policies should be designed to promote the performance of MSEs in the study area.

Access to training was found to be key factors to influence performance of MSEs. Therefore, the operators, government, and other concerned body should make efforts to provide as packages in any TVET programs and short term training basis to upgrade their entrepreneurial skills whenever operators of MSEs seek supports. Moreover to make MSEs competitiveness and profitable, a continuous training is crucial to increase the capacity of operators' skill and competitiveness to enhance performance of MSEs.

Amount of initial capital at startup was found to be insufficient. The finding also supports that adequacy of initial capital affects performance of MSEs negatively in profit measurement. Therefore, government, financial institutions, donors, and other interested party should have to make efforts of making conducive climate to provide loans at startup to achieve the expected performance and survival of MSEs.

Access to market is found to be a significant factor and affects performance of MSEs negatively in profit measurement. Hence, government, operators of MSEs and other concerned body should have to facilitate the creation of sustainable market linkage and access to local and regional market to increase MSEs' competitiveness in terms of price, quality, and supply to achieve the performance of MSEs in the study area.

5.3. Limitations and future research direction

One of the limitations that encountered in this study:

- The first limitation: The findings of the study were only for sectors of rural agriculture, Wood and metal working and Merchandize and retail shop. Therefore, more efforts should be devoted to study the determinants of MSEs performance in Sayilem district including other sectors such as urban agriculture, construction, service and the remaining manufacturing sectors.
- The second limitation: The study used only nine specific independent variables and a sample size of 148. Future research can increase and modify the independent variables and sample size to the study in order to improve the result.
- The third limitation: In this research performance of MSEs is measured by profit and labor growth. Hence future research should be devoted to extend the performance of MSEs by other related measures like customer service, employee satisfaction etc.

  Finally, incorporate and use as a research gap the above limitation, longitudinal research is recommended to look at changes over time. Therefore, it is better to assess deeply the factors that affect the performance of micro and small enterprise and economic growth supplies in Sayilem district for future research.

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Annex 1

Jimma University

School of Graduate Studies

College of Business and Economics

Department of Economics

- Micro and Small Enterprises (MSEs) Survey questionnaire

Dear Respondent:

This project is entitled "The Factors Affecting the Performance of Micro and Small Enterprises in Sayilem district ". The researcher is Girma Metchew Megi who is currently Economics student at Jimma University.

The purpose of this study is to examine the factors that affect the Performance of micro and small enterprises long run relationship among microfinance institutions, trade and industry offices and Micro and Small Enterprises Performance in Ethiopia, particularly in Sayilem district.

You are one of the respondents selected to participate on this study. Please assist me in giving correct and complete information to present a representative finding on the current status of the determinants of Micro and Small enterprises performance in selected Sayilem district *kebelle*. Your participation is entirely voluntary and the questionnaire is completely anonymous.

Finally, I confirm you that the information that you share me will be kept confidential and only used for the academic purpose. No individual's responses will be identified as such and the identity of persons responding will not be published or released to anyone. All information will be used for academic purposes only. Thank you in advance for your kind cooperation and dedicating your time. With best regard

Instruction :- Girma Metachew Megi !!

- No need of writing your name.
- For multiple choice questions indicate your answers by circling the letter of your choice.
- For statements given in table form indicate your answer with a checkmark (√) in the appropriate block.
- For open –ended questions write your answer briefly on the given blank space.

Information about background of the respondents and internal factors related to MSEs

1. Kebelle:----------
2. Sex: Male =1 Female = 0
3. Age: ----------
4. Marital status: single =1 , married = 2 , divorced = 3 ,4 = widowed
5. What is the highest level of education you have attained so far: ----------
6. When did your business established? 2019 E.C = 0, 2020 E.C = 1, 2021E.C = 2.
7. What was the amount of your startup capital in Birr:----------
8. Did your startup capital was adequate? 1=. yes , 2 = no

9.1 If your answer is "No" where did you get additional money to start your business?

1= From microfinance, 2 = from family, 3 = from friends , 4 = from Equb /Idir

5 = I started my business with no additional money

NB. Size of your business (**Hint**. **Micro**: for rural agriculture up to Birr 50,000; for merchandize & retail and wood & metal up to Birr 100,000 and **small**: for rural agriculture up to Birr 500,000; for merchandize & retail and wood & metal up to Birr 1,500,000

1 = micro , 2 = small

10. Source of finance when you start your business:

1 = personal saving, 2 =. family investment, 3 = loan from Micro finance institution 4 = If others specify ----------

11. What is the type of business you are currently involved in

1 = Rural agriculture, 2 = Merchandize and retail shop, 3 = Wood and metal work

12. Origin of enterprise:

1= newly established 2 = inherited from family 3 = Purchased from others 4 = if other specify ----------

13. What was the total amount of revenue in birr of your enterprise in the year ----------

14. What was the amount of total cost (TVC + TFC) in birr of your enterprise ----------

15. What is the trend of your business profitability?

1= profitable, 2 = survival, 3 = Loss

15.1 If your answer is Loss what is the reason? ----------

16. How many employees does your enterprise have including the principal owner?

1. at initial ---------- 2. at the current ----------

17. What is the term of employment of your enterprise if your business has workers?

1= permanent, 2 = temporary , 3 = part time , 4 = No employed workers

18. How do you describe your current income compared to the previous one (before starting your business?)

1= Increasing, 2 = Not increasing

19. Does your enterprise have a capacity in job creation/contribution?

1 = yes , 2 = No

20. If your answer is no explain your reason for the inability of your enterprise to create job

---

21. How do you evaluate your enterprise's role in poverty reduction?

1 = high, 2 = medium, 3 = low

21.1. If your answer is low could you mention the major constraints that face your business to alleviate poverty ----------

22. Do you think that there are challenges that hinder performance of your business?

1 = yes , 2 = No

23. If your answer is yes could you describe and rank the main constraints facing your business performance?

S. No.	Major Constraints	Degree of Severity
		High
		Medium
		Low

24. Do you have marketing skills (like planning, ability to identify and satisfy customer wants, good customer relationship, identifying target markets, promotional activities etc.)?

1 = Yes , 2 = No

- **External/ Business Environment Factors Related to MSEs**

1. Do the current government policies and regulations affect adversely your business performance?

1 = Yes , 2 = No

1.1 If your answer is "Yes" indicate the government policies and regulation related factors that adversely affects your business performance (put a check mark(√))

Business registration and licensing	
Too many rules and regulations	
Lack of incentive and support	
Lack of working premises	
Lack of training	
Lack of loan provision	
High tax imposition	

Others (specify) ----------

2. Does your business have access to formal credit facility since you started your business?

1 = Yes , 2 = No

2.1 If your answer is "No" tick the possible reasons from the following your inability to access credit.

Lack of collateral	
Interest rate is high	
Complex loan procedure	
Most financial institutions are reluctant to provide credit to MSEs	
Amount of the loan is insufficient	
I don't need credit	

Others (specify) ----------

3. Does your enterprise use a modern business technology in operating its day to day activities?

1 = Yes , 2 = No

3.1 If your answer is "No" indicate your reason for not using a technology

Lack of skills and knowledges to handle new technology	
Lack of money to acquire business technology	
Unable to select proper technology	

Others (specify) ----------

4. Have you taken any training on business related skills such as business plan, management, record keeping and other related skills before and after you started your business?
1 = yes , 2 = No

5. Does your business product/service have market demand and market linkage with other enterprises enough to sell it easily?
1 = yes , 2 = No

6. Did your business growth status is increase?, decrease?, or there is no change ? Show your answer when:

Decrease = 0 , No change =1 , Increase = 2 .

7 . Does the current state of market competition in Sayilem district affect negatively your business capacity in generating adequate profits?
1 = yes , 2 = No

7.1 If your answer if "Yes" do you think that the competition is healthy and fair?

1 = yes , 2 = No
8. what is form of a business. Partnership=1, Sole proprietorship=2, Cooperatives=3

9. Have you ever taken training on business-related skills before & after you started a business?
1 = yes , 2 = No

- **Key Informant Interview**

Key informant interview guidance questionnaire for government office and other relevant organizations concerning determinants of MSEs' performance

- **Part One: Interview**

Personal Identification Interview date ---------- Town --------- Sex -------- Age ------
Marital status -------- Educational status ----------Office/ institution/ name --------- Position ------

- **Part Two: Interview**

1. How is the current performance status of MSEs and their capacity in generating adequate profits in Sayilem District?
---
2. How do you assess the current working premises and operating location of all MSEs?
---
3. Can you mention the type of government support and incentives given to MSEs?----------

4. How do you describe MSEs their access to credit?

---

5. Could you mention some major internal and external challenges facing performance of MSEs in Sayilem district?

---

6. What are the infrastructural related factors limiting performance of MSEs?

---

7. How do you describe entrepreneurship training provided to MSEs operators?

---

8. How do you evaluate MSEs access to market and their market linkage?

---

9. How do you describe the level of market competition and its fairness among MSEs in Sayilem district? ----------

10. What should be done for MSEs to continue successfully in their respective business operation?----------

Thank You!!!

Annex 2: **Binary logistic regression result**

```
Logistic regression                             Number of obs     =        148
                                                LR chi2(9)        =      95.49
                                                Prob > chi2       =     0.0000
Log likelihood = -48.799136                     Pseudo R2         =     0.4945
```

Profit	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
sex	3.414251	1.005605	3.40	0.001	1.443301	5.385201
age	-.0288576	.0432273	-0.67	0.504	-.1135815	.0558663
education	-.7107179	.2851803	-2.49	0.013	-1.269661	-.1517748
Capital	-.7647571	.2841783	-2.69	0.007	-1.321736	-.2077778
government	-2.744361	.6338839	-4.33	0.000	-3.986751	-1.501972
Credit	-2.511751	1.191325	-2.11	0.035	-4.846705	-.1767982
Training	-.170569	.5706323	-0.30	0.765	-1.288988	.9478498
Competition	.5861757	.6003829	0.98	0.329	-.5905533	1.762905
Market	-1.25232	.5479442	-2.29	0.022	-2.326271	-.1783696
_cons	12.12969	3.708273	3.27	0.001	4.861611	19.39778

Source: Stata-14 output from survey Data, 2021.

Annex 3: **Binary logistic regression result**

```
Logistic regression                             Number of obs     =        148
                                                LR chi2(9)        =      95.49
                                                Prob > chi2       =     0.0000
Log likelihood = -48.799136                     Pseudo R2         =     0.4945
```

Profit	Odds Ratio	Std. Err.	z	P>|z|	[95% Conf.	Interval]
sex	30.39417	30.56454	3.40	0.001	4.23465	218.1539
age	.9715548	.0419976	-0.67	0.504	.8926315	1.057456
education	.4912914	.1401066	-2.49	0.013	.2809269	.8591817
Capital	.465447	.1322699	-2.69	0.007	.2666718	.8123875
government	.0642894	.040752	-4.33	0.000	.0185599	.2226907
Credit	.081126	.0966474	-2.11	0.035	.0078542	.8379489
Training	.8431849	.4811486	-0.30	0.765	.2755496	2.580156
Competition	1.797103	1.07895	0.98	0.329	.5540207	5.829345
Market	.2858407	.1566248	-2.29	0.022	.0976592	.8366331
_cons	185292.9	687116.9	3.27	0.001	129.2322	2.66e+08

Source: Stata-14 output from survey Data, 2021.

Annex 4: Hosmer - Lemeshow test

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	14.945	8	.060

Source: Stata-14 output from survey Data, 2021.

Annex 5: Model Summary

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	97.598[a]	.475	.652

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Source: Stata-14 output from survey Data, 2021.

Annex 6: Multicollinearity test for all variables by logit

Variable	VIF	1/VIF
sex	1.73	0.577479
age	1.55	0.644812
Competition	1.42	0.705856
Training	1.30	0.769193
education	1.27	0.788346
Capital	1.24	0.804951
Credit	1.21	0.826771
Market	1.20	0.834967
government	1.18	0.848592
Mean VIF	1.34	

Source: Stata-14 output from survey Data, 2021.

Annex 7: Model summary for growth

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.688[a]	.473	.439	.85477	1.694

a. Predictors: (Constant), Access to market, education, age, Initial capital, Government policy, Level of market competition , Access to training, sex, Access to credit

b. Dependent Variable: Growth

Source: Stata-14 output from survey Data, 2021.

Annex 8: Multicollinearity test for all variables by OLS

Variable	VIF	1/VIF
Credit	2.00	0.499879
sex	1.64	0.610529
Market	1.59	0.628257
Training	1.56	0.640804
age	1.56	0.643073
government	1.30	0.766945
education	1.21	0.828024
Competition	1.21	0.829253
Capital	1.14	0.879653
Mean VIF	1.47	

Source: Stata-14 output from survey Data, 2021.

Annex 9 : **Multiple regression result**

Source	SS	df	MS	Number of obs	=	148
				F(9, 138)	=	13.78
Model	90.6366447	9	10.0707383	Prob > F	=	0.0000
Residual	100.827882	138	.730636829	R-squared	=	0.4734
				Adj R-squared	=	0.4390
Total	191.464527	147	1.30247978	Root MSE	=	.85477

Growth	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
sex	.1493735	.2184361	0.68	0.495	-.2825409	.5812879
age	.0007529	.0111126	0.07	0.946	-.0212201	.0227259
education	.0052265	.06346	0.08	0.934	-.1202532	.1307062
Capital	-.0779413	.0723764	-1.08	0.283	-.2210515	.0651689
government	.4423087	.186999	2.37	0.019	.0725549	.8120625
Credit	.970378	.2188872	4.43	0.000	.5375715	1.403184
Training	.4285569	.1874988	2.29	0.024	.0578149	.7992989
Competition	.3827784	.1623556	2.36	0.020	.0617522	.7038047
Market	.1034048	.2012182	0.51	0.608	-.2944647	.5012743
_cons	-2.296748	.4870695	-4.72	0.000	-3.259832	-1.333663

Source: Stata-14 output from survey Data, 2021.