DETERMINANTS OF MICRO AND SMALL BUSINESS ENTERPRISE GROWTH IN HOSANNA TOWN, SNNPRS, ETHIOPIA
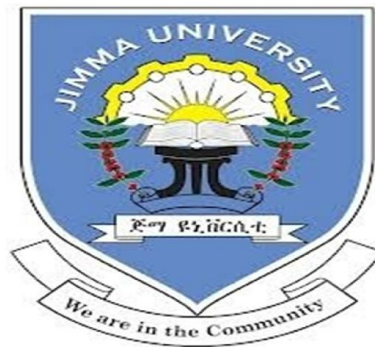
Thesis submitted to the School of Graduate Studies of Jimma University in Partial Fulfillment of the Requirement for the Award of Degree of Master of Business Administration(M.B.A)

By

NEGATU ABERA KEBEDE

JIMMA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF MANAGEMENT

JUNE 05, 2017

JIMMA, ETHIOPIA

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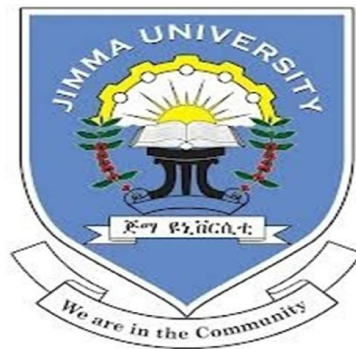
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JIMMA UNIVERSITY

MBA PROGRAM

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MBA PROGRAM

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We, the under signed, members of the board of examiners read this thesis " Determinants of Micro and Small Business Enterprise Growth in Hosanna Town, SNNPRS, Ethiopia'' and evaluated the final open defense by Negatu Abera. We examined the candidate and then we certify that it is suitable submission for the reward of Degree of Master of Business Administration (M.B.A).

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DECLARATION

I hereby declare that this thesis entitled *"Determinants of Micro and Small Business Enterprise Growth in Hosanna Town, SNNPRS, Ethiopia''*, has been Carried out by me under the guidance and supervision of Dr. Mekonnen Bogale (MBA, Ph.D) and Firew Mulatu (MBA).

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

Researcher's Name   Date   Signature

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CERTIFICATE

*This is to certify that the thesis entitles "*Determinants of Micro and Small Business Enterprise Growth in Hosanna Town, SNNPRS, Ethiopia*, Submitted to Jimma University for the award of the* **Degree of Master of Business Administration** *and is a record of confide research work carried out by Mr. Negatu Abera, 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 or diploma.

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Abstract

Micro and small enterprises play a key role in stimulating other sectors of the economy such as trade, construction and services, agriculture and in reducing unemployment. In Ethiopia, like in any other developing countries, medium and large-scale manufacturing or service giving sectors and state bureaucracies could not create enough jobs to absorb the ever increasing labor force, especially in urban areas. The main focus of the study is to examine determinants of micro and small business growth in Hosanna town, SNNPRS, Ethiopia. The research design was cross sectional survey based explanatory approach. Primary data in this study was collected through structured questionnaire based on 230 respondents from Micro and small enterprises. Total respondents were selected by using proportional stratified sampling and then simple random sampling method was applied. Secondary data was gathered from different published and unpublished written documents. Both are quantitative and qualitative in nature. Data analysis is carried out with the help of various descriptive and econometric techniques that (logit model). Evans model was used to measure growth of MSEs using change in employment size/capital since startup in which about 55.65% of MSEs are found survival and the remaining 44.35% are growing in terms of employment and about 70.87% of MSEs are growing and the remaining 29.13% are found survival in terms of capital. The binary choice logit model result shows Human capital:-Marital Status, previous business experience, motivation, staff quality, team work, staff training and staff motivation; business related factors:- Business existence, location, business plan and initial employment size; Institutional factor:- Access to finance, Access to market linkage, Access to electric power, Access to transport and social network; Support:- support of access to market and support of advisory/consulting were found significant determinants of MSEs employment growth. In terms of capital growth, Human capital:- Age, marital status, education level, previous business experience, training and staff; Business related factors:- location of enterprise, Business plan and startup capital; Institutional factor:- Access to finance, Access to market linkage, Access to electric power and social network; Support:- support of access to market, support of IT service and support of advisory/consulting were found significant determinants of MSEs growth. Therefore, government and non-government organizations concerned with the development and promotion of MSEs need to take these factors in to consideration to accomplish good result and increase the potential contribution of MSEs to the growth of a country Ethiopia.

Key words: Capital, Determinants, employment, growth, Hossana, Micro and small enterprise (MSEs)

ACKNOWLEDGEMENTS

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LIST OF ABBREVIATIONS/ACRONYMS

AEMFI   Association of Ethiopian Microfinance Institutions

CSA   Central Statics Agency

FeMSEDA   Federal Micro and Small Enterprises Development Agency

GEMINI   Growth and Equity through Microenterprises Investment and Institutions

ILO   International Labor Organization

MoTI   Ministry of Trade and Industry

MSEs   Micro and Small Enterprises

SPSS   Statistical Package for the Social Sciences

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In overall economic development, a critically important role is played by micro and small enterprises in the developing world. The vast majority of countries rely on the dynamism, resourcefulness and risk-taking of private enterprises to which most micro and small enterprises belongs to sustain the process, and form the base for private sector led of economic growth. Expansion and development of the sector increases agricultural productivity through providing agricultural inputs and creating demand for agricultural outputs. Micro and small enterprises play a key role in stimulating other sectors of the economy such as trade, construction and services, agriculture and in reducing unemployment (ILO, 2006). The MSE sector is seen as an essential catalyst for job creation, unemployment reduction and social progress at large since it takes the lion share of fast growing labor force in the world particularly 48% in North Africa, 51%in Latin America, 65% in Asia, and 72% in Sub-Saharan African Countries (ILO, 2002).

In Ethiopia the idea of Micro and Small Enterprises (MSEs) development emerged as a promising agenda in the 1980s. A variety of reasons have been cited for the surge of interest in MSEs development, like: MSEs are a better way for poverty reduction, a platform for sustainable development and productivity, important actors within the trade sector and a platform for economically empowering women and men (ILO, 2006). People engaged in MSEs are nearly twice the level of employment in large scale enterprises and in the public sectors (Mead and Liedholm, 1998). In Ethiopia, MSEs are the second largest employment generating sector next to agriculture. More than 1.3 million people in the country are engaged in MSEs sector (CSA, 2007). But a large number of MSEs are unable to grow and remain to be survival type which cannot provide employment. Moreover, out of 1000 MSEs in this country around 69% of them are found survival types (Gebreyesus, 2007).

In Ethiopia, like in any other developing countries, medium and large-scale manufacturing or service giving sectors and state bureaucracies could not create enough

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jobs to absorb the ever increasing labor force, especially in urban areas. In such situations, micro and small enterprises may be reported to by poor and unemployed people in both urban and rural areas as source of livelihood (Fantahun, 2004). Micro and small enterprises may therefore have a critical potential role in poverty reduction and economic recovery and growth. The efficacy of such interventions, however, depends on identifying the key problems and targeting the potentially successful entrepreneurs. An examination of the determinant factors of entrepreneurship and factors the affecting performance of micro and small enterprises in the study area with high potential to survive and grow is therefore essential. In this regard, to the knowledge of the researcher any studies are not available in Hosanna town. This paper explores the determinant factor of growth of micro and small enterprises and how they affect their survival and growth in Hosanna town.

1.2 Statement of Problem

Existing literature has documented various key determinants of self-employment or entrepreneurship and the growth of micro and small enterprise wherein environmental factors, demographic factors, and individual intrinsic characteristics influence decisions on becoming an entrepreneur and its growth (Tullao *et al.,* 2014). According to prevailing statistics there are high business birth rates, however death or stagnation of these businesses is very high and most of the organized MSEs are not grown as expected (Rose, 2006). Reasons behind lack of growth from various studies have been cited as lack of capital and limited access to entrepreneurial finance which inhibit entrepreneurship and influence growth negatively, as it impedes the progress that comes from the timely application of resources (Okpara and Wynn, 2007; Nasser *et al.,* 2003; Pretorious and Shaw, 2004; Rwigema and Venter, 2004; Davila, Foster and Gupta, 2003).

 As indicated in previous research reveals that firm growth is a multidimensional phenomenon, there is substantial heterogeneity in a number of factors associated with firm growth and related research (Delmar *et al.,* 2003). The commonly used measures of firm growth: (employment growth, sales growth, profit, return on equity, return on assets) and entrepreneurs' perceived growth relative to their competitors in terms of increase in company value (Leona *et al.,* 2010).

The economic conditions affecting the type of business opportunities available are: the stability of macroeconomic conditions and the level of economic growth, employment levels, income disparity, capital availability and taxation (Fuduric, 2008). There are many factors like characteristics of the entrepreneur, access to resources like finance, and manpower which affect the growth of the enterprise and differentiate it from a non-growing enterprise (Gilbert *et al.*, 2006). In different studies the results showed that some discrepancy in the number of factors that determining the growth of MSEs. Age, education and experience are indicated as a major factors (Abebe, 2011; Alemu and Dame, 2016; Gebereheywot and Woldey, 2006).

On the other hand access to market, finance and social network are indicated as a significant determinant factors (Dagmawit and Yishak, 2016; Wolde and Geta, 2015). And also factors like attitude, culture and level of economic development are taken as determinants of growth of MSEs (Alemu and Dame, 2016). Another study also revealed that legal frame work, human resource capacities, management capacities, marketing skill and technological capacities are the major determinants of growth (Bouzza *et al.,* 2015).

As indicated above even if many researches are done in this area, their results regarding growth determinants of MSEs were different and also some of them have been general in nature not focusing on specific parameters of growth and the others also focus on specific aspects of business environment and not exhausting or giving a direct correlation between the various factors and the growth of MSEs in specific measurable terms. This shows that nobody clearly indicated the main factors through exhaustive addressing of overall dimensions of the business and rank the level of significance of major factors for the growth of some and failure of other MSEs.

The study therefore wanted to fill this gap by looking at four dimensions of business factors that affect the growth of firms from one level to another. Past studies have indicated various factors affecting growth of MSEs without stating which factors are key for MSEs growth. This study will evaluate the factors that can enable owners to achieve growth by ranking the key factors in order of significant influence. Finally Most studies have been done in the world and even Ethiopia but there is none that has looked at the factors influencing growth of MSEs in a similar combination as in this study that is human capital, business related factors, institutional factors and support in Hossana town

which is very populous with high levels of unemployment, hence this study need to address these gaps.

Furthermore, previous studies conducted in Ethiopia focused on the regional level and sub cities of Addis Ababa – Ethiopia and in zonal level there is scant studies. So that, this study contribute to fill the research gap of MSEs existed at Reform town level (Hossana is one of the five level one reform town) and what factors mostly affecting at this micro level. To the knowledge of the researcher, no study is found on the determinants of growth of MSEs and Even most studies on micro and small enterprises were done in the different areas of the country; Hosanna Town is not addressed by researches. Therefore, this study was done to contribute to the scientific information on the determinants of MSEs growth in Ethiopia through determining the influence of human capital, business related factors, institutional factor and support from government or NGOs on the growth of MSEs in Hossana town of Hadiya zone, SNNPRS. This study therefore seeks to assess the factors influencing the growth of MSEs in southern Ethiopia by answering the questions: could human capital, business related factors, institutional factor and BDS support is contributors to the growth of MSEs.

1.3 Basic Research Question

i.   What is the influence of human capital on the growth of micro and small Enterprises in Hossana, SNNPRS, Ethiopia?

ii. What is the influence of business related factors on the growth of micro and small Enterprises in Hossana, SNNPRS, Ethiopia?

iii. What is the influence of institutional factors on the growth of micro and small Enterprises in Hossana, SNNPRS, Ethiopia?

iv. What is the influence of BDS support on the growth of micro and small Enterprises in Hossana, SNNPRS, Ethiopia?

1.4 Objective of Study

1.4.1 General objective

The Major objective of the study was to examine determinants of micro and small business growth in Hosanna town, SNNPRS, Ethiopia.

1.4.2 Specific objectives

Specifically, the study were pursued the following specific objectives.

i.   To evaluate the influence of human capital on the growth of micro and small Enterprises in Hossana, SNNPRS, Ethiopia.

ii.   To examine the influence of business related factors on the growth of micro and small Enterprises in Hossana, SNNPRS, Ethiopia.

iii. To assess the influence of institutional factors on the growth of micro and small Enterprises in Hossana, SNNPRS, Ethiopia.

iv.   To investigate the influence of BDS support on the growth of micro and small Enterprises in Hossana, SNNPRS, Ethiopia.

1.5 Significance of the Study

As indicated in earlier different actors suggest that MSEs have contribution on the economic development and unemployment reduction. Therefore, the current study is produced, at least in study area, relevant information regarding the determinants of MSEs growth in terms of employment and capital to contribute to the scientific information for researchers, academician that will use the findings obtained from this study to disseminate information to MSEs and the general public. And also Future scholars, researchers and academicians can use the findings of this study for further studies based on recommendations and also as reference for their work. This also builds to the existing literature in the field of entrepreneurship and growth of MSEs.

Understanding the main determinant factors of the growth of micro and small enterprise has important policy implication and reduces scarcity of determinant assessment research of MSEs growth at reform town in Region and country level. Evaluation result of study benefits MSEs, Trade and investment office, and NGOs work on MSEs supporting, market accessing and livelihood development. Moreover, the empirical result of study can be used to create awareness for different stakeholders and also serve as background information for others who seek to do further related research and help in formulating and revising enterprise related strategies in other similar socio-economic backgrounds.

Finally, the finding highlights contribute to the overall national and global efforts aimed at supporting MSEs and unemployment reduction and subsequently fostering

development in the countries strategy framework of the transformation of economic development.

1.6 Scope of Study

The study was focused assessing on the determinant factors: human capital, business characteristics, institutional factor, and access to support influence growth of MSEs was conducted in Hossana town in Hadiya zone, SNNPR. The sampling frame was the list of all MSEs obtained from the town administration trade office of Hosanna Town. The information from MSEs managers were obtained through administration of survey questionnaires and responses recorded and analyzed for presentation. Owners/managers were selected because they have all relevant information regarding the business and they were therefore best placed in answering the questions. Stratified sampling was adopted where the MSEs were put in five categories and simple random sampling was adopted to select the representative samples from the categories and then purposively managers were taken as respondent.

1.7 Organization of the Paper

This research paper is organized into five chapters. The first chapter deal with background of study, statement of the problem, research questions, objective of study, significance of investigation, limitation and scope of study. The second chapter includes theoretical and empirical review of literature. Third chapter of study include design and method of that investigator applied in the study. Chapter four focus on finding of study. Fifth chapter also include conclusion and recommendation of study.

CHAPTER TWO

LITRETURE REVIEW

2.1 Theoretical Review

2.1.1 Definitions and Concepts

Depending on their respective situations there are a number of different definitions are given for micro and small businesses. Widely used criteria used to define enterprises, the most common ones are 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. According to World Bank definition microenterprises are as affirm having a total asset about USD 100,000 and employing 10 persons. (Getachew and Yishak, 2006).

The micro and small enterprises definitions are varies from country to country and industry to industry which are categorized into different scales of operations based on the size and nature of employment that was in use classifies enterprises into different size categories based on number of workers as criteria. In Ethiopia, the Ministry of Trade and Industry (MoTI) adopted definition of micro, small and medium enterprises based on paid up capital. Micro enterprises are those business enterprises with a paid up capital of less than birr 20,000 and excluding high-tech consultancy firms and technology establishments. Small Enterprises: are those business enterprises with a paid-up capital of above Birr 50,000 but not exceeding 500,000 (for service) and above Birr 100,000 but not exceeding Birr 1,500,000, and excluding high tech consultancy firms and other technology establishments with 6 to 30 employees including family members (MSEs development strategy 2011). The working definitions used in this thesis is based on number of employees. Accordingly, a micro-enterprise is a firm with 5 or fewer employees; and a small enterprise is a firm with 6-30 employees including family labor. (Federal micro and small enterprises development agency (FMSEDA), 2011).

2.1.2 The Improved Definition of MSEs in Ethiopia
Based on the gathered experience, by identifying the gaps of the existing definition of MSE, ignoring the size of employee and by taking total asset as criteria and by dividing it in to industry and service sector; and considering the coming 5 years inflation and

fluctuation/regularity of currency the definition of MSEs was improved in January, 2011 as follows.

Based on the revised sector both micro and small scale enterprises are categorized in to industrial sector and service sector. Under industry sector (manufacturing, construction and mining) micro enterprises are defined as an enterprise that operates with 5 people including the owner and/or their total asset is not exceeding Birr 100,000 (MSEDS, 2011).

Under service sector (retailer, 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 enterprise and/or the values of total asset is not exceeding Birr 50,000. Under the industry sector (manufacturing, construction and mining) small enterprises are defined as operates with 6-30 persons and/or with a paid up capital of total asset Birr 100,000 and not exceeding Birr 1.5 million. Under the Service sector (retailer, transport, hotel and Tourism, ICT and maintenance service) Small enterprises are defined as operates with 6-30 persons or/and total asset, or a paid up capital is with Birr 50,001 and not exceeding Birr 500,000. When ambiguity is encountered between manpower and total assets as explained above, total asset is taken as primary yardstick (MSEDS strategy, 2011).

Table 2.1 The improved definition of MSEs in Ethiopia

Level of enterprise	Sector	Human power	Total asset
Micro enterprise	Industry	5	Birr 100000 ($6000 or E4500)
	Service	5	Birr 50000 ($3000 or E2200)
Small enterprise	Industry	6-30	Birr 1.5million ($90000 or E70000)
	Service	6-30	Birr 500000 ($30000 or E23000

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

2.1.3 MSEs and Economic Development of Developing Countries

In developing countries, micro and small enterprises comprise the vast majority of the small business sector, a result of the relative lack of formal sector jobs available for the poor. Micro and small enterprises in developing countries, then, tend to be the most frequent form/size of business. There is mounting evidence that micro and small enterprises have tremendous roles to play in the economies of developing countries,

particularly in urban areas. The main explanations for this is that they are easily started and operated with little capital, less skill and low technology, compared to their medium and large scale counterparts. In many developing countries, the bulk of the population is characterized as having limited financial capacity and, limited knowledge and skills. Access to modern technology is also very limited. As a result, people engage in businesses that they can afford to carry out with the meager resources they have. In this regard, therefore, micro and small enterprises play an important part as they provide employment opportunity and income to the vast majority of poor people in developing countries (Association of Ethiopian microfinance institutions (AEMFI), 2002).

According to ILO (2006), estimations, the share of informal sector/micro and small enterprise employment outside agriculture to the total non agricultural employment accounts for nearly half or more in all regions of the developing countries and, about 72 per cent in sub-Saharan Africa. The contribution of the micro and small enterprises is also important at the macroeconomic level as they contribute to innovations, jobs and economic growth. In Thailand, for instance, small firms create employment opportunities for 60% of the workforce and contribute 50% to the GDP. This contrasts with the case in other developing countries where agriculture accounts for the largest part of GDP.

In most developing countries, micro and small enterprises constitute the vast majority of firms, generating a substantial share of both overall employment and output. Given their significant economic role, one might expect micro and small enterprises growth to drive overall increases in output and income levels (Mead, 2004). In many cases, however, their largest economic contribution appears to be one of maintaining rather than generating new employment and income for the poor. At an aggregate level, micro small enterprises and demonstrate impressive growth, especially when compared with larger firms. However, many individual micro and small enterprises grow slowly or not at all in some cases, due to a conscious decision on the part of the business owner. Overall growth rates are often fueled by the rapid expansion of a narrow group of highly performing micro and small enterprises. In developing as well as in developed countries, there appears to be a small group of gazelles firms that outperform their peers and drive aggregate employment and productivity growth for the small business sector (Mead, 2004).

Some micro and small enterprises may face potentially lucrative business opportunities, but be unable to take full advantage of them due to inadequate capabilities. Although these ponies may expand quickly for short durations while trying to harness these opportunities, they often lack endurance as they do not have requisite capabilities for sustained growth. For instance, some small honey producers in Brazil initially experienced strong demand for their organic honey in open marketplaces, and hoped to sustain growth by marketing to supermarkets. However, inadequate capabilities inhibited them from achieving this goal because inappropriate technology prevented them from satisfying the formal packaging requirements of supermarkets (Nichter, 2004).

2.1.4 Micro and Small Enterprises in Developing Countries

Micro and small enterprises are vital for the economic development of a nation. It contributes to the GNP, creating employment opportunity and address the area of specialization that big companies are not interested in. . They are also considered as to be flexible and can react quickly to the changes in the environment. In Ethiopia, micro and small enterprises are the major source of employment and income for the urban population and contribute to the poverty reduction, enhance self employment, respect and social dignity. . More importantly, micro and small enterprises contribute to the reduction of poverty and vulnerability of the poor through enabling them to break the vicious cycle of poverty, and to enhance self-empowerment, respect and social dignity and also helps the lower level income people to increase their income, accumulate assets, and enter into mainstream society (Assefa, 2004). According to the United Nations Industrial Development Organization (UNIDO) (2015), there is common agreement those micro and small enterprises: are labor-intensive, providing more opportunities for low skilled workers; are correlated with lower income distribution inequality; are necessary for agriculture-dependent nations transitioning to an industrial- and service-oriented economy.

In developing countries, micro and small enterprises generate a greater portion of overall employment as compared to developed countries which normally have a greater emphasis on small-scale production. (Tybout, 2000).

In Africa MSEs generate nearly twice level of employment as compared to large-scale enterprises and the public sector (Mead and Liedholm, 1998). In Indonesia more than

two-third of employments opportunities are created by micro and small enterprises who are firms with fewer than 20 workers (Berry, Rodriguez and Sandee, 2002).

In many Latin American countries, more than half of overall employments are generated by micro and small enterprises. Firms with fewer than 10 workers constitute 58 percent of total employment in Paraguay, 54 percent in Mexico, and 53 percent in Bolivia. Furthermore, micro and small enterprises share of total employment increased in many Latin American countries over the 1990s (ILO, 2003).

2.1.5   Micro and Small Enterprises in Ethiopia

In Ethiopia, MSEs development have been given more emphasis and, the current government as well as NGO's and donors have shown interest in the sector. Accordingly, to encourage, coordinate and assist institutions which provide support to the development and expansion of micro and small enterprises, the Federal Micro and Small Enterprises Development Agency (FeMSEDA) was established in 1997 E.C. This organization is accountable to the Ministry of Trade and Industry. Its mission is to create enabling environment for micro and small enterprises development by providing of training to trainers, Business Development Services (BDS), consulting services on appropriate technology and other marketing service to micro and small enterprises and supporting institutions (FeMSEDA, 2007).

Both the government and stakeholders are given and growing attention for micro and small enterprise sector. Now a day some donors and NGOs have close involvement in the efforts to enhance the contribution of micro and small enterprises to the economy. The government introduced its first Micro and Small Enterprise Development Strategy in 1997 for that given recognition of the important role of MSEs in creating employment opportunities and generating income, consequently reducing poverty (AEMFI, 2007).

 In terms of employment manufacturing sector, they occupied a total of 129,592 persons, of which 88% are male. Permanent paid employees and not paid family workers respectively account for 48% and 40% the rest being seasonal and temporary workers (6.6%), unpaid apprentice (3.4%) and paid apprentice (2.3%). micro and small enterprises are known to face a host of problems at various stages in their life span (AEMFI, 2006).

Another survey report by the CSA on Urban Informal Sector1 (2008) indicates that there were 997,380 persons engaged in the informal sector in urban areas, 81% of which are informal sector operators while the remaining 20% are persons employed in the informal sector. In terms of gender, a large majority (60%) are female. About 46% of the totals are engaged in manufacturing while 38% are in trade, hotels and restaurants. The informal sector is dominated by sole ownership, accounting for 99.09% of the total establishments/activities. The report stated that the source of initial capital for 89% of the total urban informal sector establishments/activities was own savings (45%), borrowed from friends/relatives (23.92%) and assistance from relatives/friends (20%). These findings prove that informal sector operators getting loans from formal financial institutions mainly from banks are very few (only 0.12 were financed by banks and 0.74% was financed by Microfinance institutions). According to AEMFI (2008), the same report, the top three problems faced by urban informal sector operators during start up stage are: lack of sufficient capital (38%) inadequate skill (10%) and lack of premises (6%). Informal sector operators also face problems after starting their operation; once again shortage of working capital came up as the most important problem cited by 30% of the establishments; while limited market and health problems became the second and third obstacles with 30% and 6% of establishments identifying them as their key problems.

2.1.6   Constraints of Micro and Small Enterprises in Ethiopia

Despite their importance, micro and small enterprises are confronted with a number of constraints. The constraints impede the performance of micro and small enterprises. Financing is a major obstacle for poor people to open up a new enterprise. This is mainly because the banking institutions are reluctant to provide loans to small businesses, most of which are unable to provide adequate collateral for loans. Lack of well developed infrastructure has been found to be acutely felt particularly in the regions (Habtamu *et al*., 2013). One of the infrastructural problems faced by micro and small enterprises in Ethiopia is the impact of power shortages on their operations. Micro and small enterprise operators often complain about the problem, as they cannot afford to bridge the gaps with standby generators. Lack of access to adequate water supply and underdeveloped roads have also negative impact on the enterprises' business activities (Getachew and Yishak, 2006).

Inadequate skills are a result of the fact that there are only a few vocational institutions that cater for developing skills; the most common form of acquiring skills in the small business sector is through apprenticeships, and the formal educational systems in the country prepare students for paid employment(AEMFI, 2007). Limited access to market and limited demand, lack of access to raw materials and their escalating prices, problems related to government rules and regulations, poor technology of production, lack of institutional support, lack of favorable policy support, lack of working places (premise), short grace period granted by lending institutions, bureaucratic problems (in some offices) are also problems impeding the performance of micro and small enterprises (Habtamu *et al.*, 2013). The technologies used by micro and small enterprises involve outdated and old equipment, unhygienic and very small quantities of production, very low flexibility to help produce diversified products, etc. Moreover, there is lack of technical training and refreshing opportunities for enterprise operators in the country.

2.1.7   Performance Measure of Micro and Small Enterprises

According to Global entrepreneurship (GEM) (2004), Performance is defined as act of performing; of doing something successfully; using resources as distinguished from merely possessing it. Performance measurement is a process for collecting and reporting information regarding the performance of an individual, group or organizations. It can involve looking at process/strategies in place, as well as whether outcomes are in line with what was intended or should have been achieved. However, performance seems to be conceptualized operational and measured in different ways thus making cross-comparison is difficult.

Cooper, (1998), examined various factors which influence business performance such as: as experience, education, occupation of parents, gender, race, age, and entrepreneurial goals. While, Lerner and Hisrich, (1997), conducted a study on Israeli women entrepreneurs and categorized the factors that affect their performance into five perspectives, that is, motivations and goals, social learning theory (entrepreneurial socialization), network affiliation (contacts and membership in organizations); human capital (level of education, skills) and environmental influences (location, and socio political variables).

Thibault (2002), suggest that factors influencing business performance could be attributed to personal factors such as demographic variable and business factors such as amount of financing, use of technology, age of business, operating location, business structure and number of full-time employees as important factors in examining the performance as small scale business operators. The most comprehensive summary of factors influencing performance include: individual characteristics, parental influence, business motivation and goals, business strategies, goals and motives, networking and entrepreneurial orientation. Others include environmental factors.

2.2 Empirical Review

2.2.1 Determinants of MSEs Growth Studies in Other Countries

Expansion or shrinkage of firms is measured by changes in the number of employees working in the firms, sales, production, etc. The changes in these variables are caused by a number of factors. In Morocco individual entrepreneur characteristics (education, work experience, gender and household), firm characteristics (firm age, and formality (or informality), relational factors (such as social networks or value chains), and contextual factors (such as the business environment) are the factors associated with micro and small enterprises performance in the country (Mohammedin, 2015).

The study by Orhan *et al.,* (2015) In order to determine the role and importance of factors contributing to the success of entrepreneurs; an ordered logit model was applied to a sample of one hundred and thirty-eight Turkish entrepreneurs. The level of family support, good customer service, charisma and friendliness to customers, business stress, ability to manage personnel, previous business experience, hard work, appropriate training, satisfactory government support, political involvement, and being married, are found significant determining factors in entrepreneurs' success.

Akabueze, (2002) concisely stated that it would seem reasonable to expect that small businesses would grow and flourish, but the rate of business failure continues to increase because of the obstacles affecting business performance which include: lack of financial resources, lack of management experience, poor location, laws and regulations, general economic conditions, as well as critical factors such as poor infrastructure, corruption, low demand for products and services, and poverty. Others include: shortage of raw

materials, handicap in obtaining finance, inadequate competent personnel, inability to control costs and problems of dumping of cheap foreign products and others.

Okurut *et al.,* (2015) in their study examined the factors that influence the growth of micro and small enterprises (MSEs) in Botswana. The study had sample of 343 MSEs and used OLS regression model to investigate the internal firm specific characteristics and business environmental factors impact on the growth of MSEs. The results indicate that the growth of MSEs is positively influenced by firm leverage, short term liquidity, employment size, firm assets labour productivity and firm size. All the external firm characteristics (with exception of firm experience) were found to be statistically insignificant in explaining the growth of these enterprises. This study is restricted the analysis only to firm characteristics and business environmental factors.

According to Uddin and Kanti (2013) study on factors contribute the success of MSEs in owners of the Khulna city, divisional city of Bangladesh. A total sample of 195 owners interviewed by adopting convenience sampling technique and analyzed using causal model. As a result important factors are identified first using rotated components matrix later regression statistics. The result showed that Business plan, channel of distribution, management skills and government support are statistically significant and Technology, Customer management and Access to finance are insignificant in determining success of MSEs in Khulna City. This outcome is different from the many researches as most of those detected contrasting result that show significance of technology, access to finance and customer management.

Yazdanfar (2013) study on profitability determinants among micro firms in Sweden. In the study seemingly unrelated regression (SUR) is used to detect the combination of variables that best estimated the impact of the explanatory variables on the dependent variable. The findings indicate that while firm size, lagged profitability, growth, and productivity positively influence profitability, firm age and industry affiliation negatively influence it. The empirical results suggest that productivity is the most significant determinant of profitability. The study limited to and addresses an issue that is relevant to various stakeholders, including managers, investors, and debt holders only related to micro businesses.

2.2.2 Determinants of MSEs Growth in Ethiopia

Study by Habtamu *et al.*, (2013) based on a survey covering 178 randomly selected MSEs from Mekelle city, Tigray regional state of Ethiopia. In their work looked growth determinants of MSEs through measuring employees growth by using binary logistic regression shows that there is a significant gender difference on the growth of MSEs with male owner growing faster than those owned by female. In addition, the initial investment on the firm, the location and the sector in which the MSEs operates matter a lot for the growth of enterprises.

Likewise study by Abebe (2011) study in success factors of MSEs found that Gender, Education status, Age of owner/manager, Work experience of owner/manager, family back ground and business characteristics are the major determinants of enterprise success. According to Alemu and Dame, (2016) who conduct their study in Ambo, Ethiopia in 160 sample MSEs are reported that additional factors are identified as influencing the business success like indicates that there could be other factors like attitude, culture and level of economic development which might affect business success. Level of education of the enterprise owner/manager, the age and size of the enterprise, and informal networking are also important factors affecting micro and small enterprise performance (Gebereheywot and Woldey, 2006).

Study in Dire Dawa city by Wolde and Geta, (2015) on the determinants of MSEs growth revealed that the age of owners/managers and enterprises engaged in construction were negatively related to growth of enterprises. Previous work experience, enterprise engaged in manufacturing, access to market, access to working and selling premises, amount of initial capital, access to finance, social networks, and vertical linkage were important factors which affected the growth of MSEs positively. Study by Dagmawit and Yishak (2016) in Durame town, southern Ethiopia in a sample of 142 MSEs by adopting binary logistic regression through measure of employee growth and capital growth the result showed that entrepreneurship training, location of enterprise, motivation of owner, market linkage, access to finance, access to water are significant for employment growth and education level of owner, motivation of owner, number of owners, initial employment size, social network are significantly influencing capital growth of MSEs.

According to Amentie *et al.,* (2015), study on Factors determining the success of micro and small enterprises in Arbaminch town, Ethiopia. In a total sample of 165 MSEs included in the study and using bivariate and multivariate regression analysis the result revealed that firms initial size, firms year of operation, market information, usage of business plan and involvement in social networking has a statistically significant impact on firm success and owners/managers entrepreneurial trait and access to training has no statistically significant association.

2.2.3 Review of Study Variable

Many studies have been conducted to investigate the determinant factors affecting MSEs growth. In general, these factors relate to human capital, firm, inter-firm (institution) characteristics (institutional) business development service factors.

2.2.3.1 Human Capital

Human capital refers the overall characteristics of human resource aspects which includes the personal aspects and as well as technical capabilities of owners and their staffs (Rauch and Freeze, 2000). Which comprise as attitudes, dedication, values, knowledge, experience, education, capability, skills and abilities that help the firm owners and his team in the tasks of the whole operation which include starting, running and growing a business to gain knowledge of more about how to run its business and to make owners more efficient in running their enterprise and in performing everyday jobs and decisions for growth (Mark man and Baron, 2003). Human capital is the most significant and critical for attaining the overall competitive advantage because human resource behavioral aspects are the most difficult to imitate and it is the main determinant factor of organizational operation (De Nisi, *et al.,* 2003). In enterprise Human capital is the fundamental overpowering force required to the development and survival of the business and the competitiveness of the venture (Bueno *et al.,* 2004).

Human capital characteristics such as gender, age, marital status, educational level, previous work experience, management skill and economic background (Habtamu, 2012; Mbugua *et al*., 2013; Mulu, 2007). The MSEs who lead by male grow faster than that of female headed and younger manager/owner of MSEs more likely to be growing than the older ones (kokobe,2013). Younger MSEs with age of less than 29 years old are growing than older one and most successful entrepreneurs are found within 20-30 years of age on

average Garoma (2012). Education level of owners and the MSEs growth have directly related and education has positive impact that improves MSEs growth with increase in education level (Dagmawit and yishak, 2016; Haftom, 2013; Habtamu, 2012; Schiebold, 2011). The firms owners with more years of business experience have grow faster than with less experience and the previous business experience have positive impact on the growth of MSEs (Dagmawit and yishak,2016; Tassew *et al*, 2015; Kokobe, 2013; Garoma,2012; Mulu, 2007). Being an entrepreneur out of necessity or opportunity driven motives does not have significant impact on duration in self-employment (Block and Sandner, 2009). Motivation of the owners to join the business activities have positive impact on the growth of MSEs and the owners who joined business by their choice have high probability to be growing than by lack of alternatives (Dagmawit and yishak, 2016). Training has positive impact on the growth of MSEs (Dagmawit and yishak, 2016). But, Entrepreneurial training of the owner and success on micro enterprises has no significant relationship (Garoma, 2012).

Human capital, the number of skilled production workers has a positive effect on the growth of MSEs (Solomon *et al.,* 2016). Parker (1994) found that business with workers trained show statistically significantly higher growth than those businesses with untrained workers.

2.2.3.2   Business Characteristics

The firm related issues include firm age, size, initial capital, formality, type of business and the like to be the most determinant factor of firm growth (Mulu, 2007; Tiruneh, 2011). The firms who are younger in age and small in size have the tendency to grow faster than the firms stay longer period and large in size (Haftom, 2013; Janda *et al.,* 2013; Mulu, 2007). Small business who engaged in manufacturing and service sector have grows faster than that of the counterpart **(**Mulu, 2007; Habtamu, 2012; Haftom, 2013; Kokobe, 2013). Firms engaged in the manufacturing and construction sectors grow faster compared with those in service sector (Solomon *et al.,* 2016). On the other hand, firm age has positive relation with growth assuming that the firms benefits from learning which enables them to develop expertise in production, management, marketing and so on (Mateev and Anastasov, 2010). Business who owned by association have positive impact on growth of MSEs(Solomon *et al.,* 2016).The startup capital of a firm has positive impact on the growth of the MSEs (Habtamu, 2012; Haftom, 2013). The MSEs located at

near to main town exhibit growth compared to MSEs located far from town centre (Dagmawit and yishak, 2016; Eshetu and Mammo ,2009). MSEs who do not prepare business plan have a greater chance of failure than that do prepare business plan (Sirpolis, 1998). Initial employment size and growth of the MSEs are negatively correlated, indicating that MSEs that start business larger in size in terms of employment grow slower than their counterparts (Solomon *et al.,* 2016).

2.2.3.3   Institutional Factors

This variable measures the impact of both public and private institutions on the performance and growth of MSEs. These are institutions whose mandate is to promote the development of SMEs through business funding, capacity building and business incubation (Davidsson and Henrekson, 2002). Robson *et al.* (2008) found both private and public institutions to be equally effective in the development of MSEs. According to Bosma *et al.* (2004) both public and private institutions have a significant and positive impact in the survival and growth of MSEs.

The growth determinants of MSEs was also associated with external factors such as access to credit, infrastructure, market, working place, technology, social services and other legal and regulatory frameworks (Admasu, 2012; Ahiawodzi and Adabe, 2012; Gichana and Barasa, 2013; Mbugua *et al.,* 2013; Mulu, 2007). Electric Power and MSEs growth have positive relation and power significantly affect growth of MSEs and also access to finance positively influence the growth of MSEs (Solomon et al., 2016). Firm with access to finance is more likely to grow more than a firm that has a lack of financial resources (Cassar, 2004; Moreno and Casllas, 2007; Olawale and Garwe, 2010). MSEs growth and access to market linkage had significant positive relationship and the MSEs who had access to market linkage grows than no access to market linkage (Dagmawit and yishak, 2016; kokobe,2013; Mbugua *et al.,* 2013; Admasu, 2012; Mulu, 2007). Access to finance has a great impact on the growth of MSEs and access to finance lead to their growth (kamau and ngugi,2014; Admasu, 2012; Mbugua *et al.,* 2013; Mulu, 2007). Social networking has important factor which positively influence the growth of MSEs (Kamau and Ngugi, 2014) and social network helps the firms to gain access to resource easily (Zontanos and Anderson, 2004).

2.2.3.4   Business Development Service

Business development services (BDS) as all non-financial services meant to assist a business person to start, manage and expand its business operations (Olming, 2004). It is any organization with a mandate to provide business development services to the business community. BDS organizations can be public or private sector institutions, and registered as a non-profit organization or as commercial business.

BDS offered on an institutional basis are available through private sector organizations (Chamber of Commerce, etc.,), government organizations and institutions, associations of MSEs and NGOs, under different arrangements and conditions. BDS organizations are consultancy companies, computer training institutes and vocational training centers (UNDP, 2004). Services provided through supporting markets-such as finance; consulting, legal, and tax advice; market information; and skills training-are often directly related to improvements in capacity (Woldie and Geta, 2015).

Relationship with supporting organization including trade association, universities and vocational schools, financial institutions, local and national level government agencies, and private business service provider. Supporting services may be offered directly to MSEs on a fee- frees (Lusby and Panlibuton, 2002). BDS and MSE growth has significant and positive relationship. MSEs who get BDS support grow than the counterpart (Dagmawit and yishak, 2016). Right advice/ consulting supporting service and technical assistance like IT service are crucial for the growth of MSEs (Admasu, 2012).

2.3 Conceptual Framework

The conceptual framework summarizes behaviors and provides explanations and predictions for the majority number of empirical observations (Cooper and Schindler, 2008). The various variables in the conceptual framework were: Human capital, business related factor, institutional factor and support as independent factors influencing growth of MSEs. The MSE growth as a dependent variable will be measured in terms of employee growth and capital growth which will be obtained from the MSEs for a period of three years to measure whether there is growth or not. The assumption for the information obtained is that the three years are normal and that the factors in question have an influence on growth.

Conceptual framework

Human capital
• Age
• Gender
• Marital status
• Education Level
• Training
• Business Experience
• Motivation
• Staff
• Staff quality
• Staff motivation pay
• Team work
• Staff training
• Retaining experienced staff

Business characteristics
• Type of ownership
• Year of existence
• Location
• Startup Capital
• Initial Employee Size

Institutional factor
• Access to finance
• Access to transport
• Access to electric power
• Access to market linkage
• Social network

BDS **Support**
• Support of Market access
• Support of IT access
• Support of Advisory

MSEs GROWTH
• Employee growth
• Capital growth

Independent variables   **Dependent variables**

Figure 2. 1: Conceptual framework, source: (structured by researcher)

CHAPTER THREE

RESEARCH DESIGN AND METHODLOGY

3.1 Research Design

The aim of this research was to identify the determinant factors of MSEs growth in Hossana town. The study was based on cross-sectional field survey and use explanatory research approach which aimed at establishing the cause and effect relationship between variables. Which was to assess the relationship between MSEs growth and factors i.e. independent and dependent variables were measured. The researcher was used the collected facts or information to analyze and make a critical evaluation of the data/information (Zegeye, 2009). Survey strategy allows one to collect quantitative data, which one can analyze quantitatively using descriptive and inferential statistics (Saunders *et al*, 2009). Quantitative approaches were employed for the data that the student researcher collects from respondents through questionnaire. Detail description of the findings was displayed in tables and charts as well as to develop inferences on the relationship between MSEs growth and factors with testing significance levels of the variables. Using this design, patterns of data was investigated and generalized.

3.2 Sampling Method

3.2.1 Target Population

A population is a group of individuals, objects or items from which samples are taken for measurement (Kombo and Tromp, 2006). It refers to an entire group of objects or events having common characteristics for observation, the aggregate of what conforms to certain specifications (Mugenda and Mugenda, 2003). The target population of the study was the MSEs who are operating more than three consecutive years and legally registered by trade and industry office in Hossana town. The total numbers of these firms were 544. Sector wise 161 were construction, 145 were manufacturing, 116 were trade, 52 were service and 70 were urban agriculture.

3.2.2 Sample Size Determination

There are several formulas developed for sample size determination that conforms to different research situations. The sample size for this study was determined by using the formula described as follows (Cochran, 1977):

$$n = \frac{N}{1+N(e^2)} \qquad\qquad n = \frac{544}{1+544(0.05^2)} = 230$$

Where;

n = the sample size of the study

N= total number of MSEs in the town

e = margin of error= 5 %= 0.05

1=designates the probability of the event occurring

Using the above formula, the sample size for the study was 230. In the study area 544 micro and small enterprises were found, from these, 42% of the micro and small enterprises were included in the study.

3.2.3   Sampling Design

The study was used stratified sampling design in order to select the required sample by considering sectors as strata. Cooper and Schindler (2008) stratified sampling is a design used where the population is not homogeneous. The respondents should be as closely representative of the total population as possible (Kothari, 2009). The MSEs were first of all stratified according to the nature of businesses then samples were selected from each stratum using simple random sampling. This was to enable the researcher capture all sectors of the businesses in the town and for the working of the criteria.

This also ensured that the requirements of efficiency, representativeness, reliability and flexibility taking caution of bias that may result from non respondents (Kothari, 2009). Then purposively the managers of MSEs were taken as a respondent in order to get necessary information from them rather than other members. The existing micro and small enterprises were classified into major sectors. Finally, the sample size was allocated proportionally based on the number of MSEs in the town in the five sectors.

Proportional sample size allocation to different sectors was determined by the following formula:

$$n_j = \frac{n}{N} N_j$$

Where, n is sample size of the study

n_j is sample size of sector j (the number of MSEs in the town in sector j)

N is population size (the total number of MSEs in the town)

N_j is size of sector j (the number of MSEs in the town in sector j). j=1, 2, 3,4, 5

In the study area, there are five major sectors in which micro and small enterprises are engaged as shown in the following table 1 below.

Table 3.1: Proportional sample size allocation to the different sectors

No.	Sectors of MSEs	Total number of MSEs (N_j)	Sample size of MSEs(n_j)
1	Construction	161	68
2	Manufacturing	145	60
3	Trade	116	50
4	Service	52	22
5	Urban agriculture	70	30
Total		544	230

Source: Trade office document, 2017

3.3 Data Sources

In this study, the researcher was used both primary and secondary data sources to obtain reliable information about MSEs.

3.3.1 Primary Sources of Data

The researcher was obtained the primary sources of data from the enterprise managers. Those sources were helped the researcher to acquire first-hand information and to draw inferences.

3.3.2 Secondary Sources of Data

Second sources of data were obtained through documentary analysis. For this purpose, the researcher observed the organizations and their relevant documents like yearly reports,

munities, to obtain reliable data on MSEs growth and related issues, to raise information for the study.

3.4 Data Collection Instrument and Administration

The survey instrument was designed on the basis of the research objective. In order to acquire the necessary information from the respondents, data collecting instruments was used. These were Questionnaire and Documents analysis as discussed below.

3.4.1 Questionnaire

Closed and open ended questionnaires were used to collect quantitative and qualitative data from selected respondents. This is because questionnaire is convenient to conduct survey and to acquire necessary information from large number of study subject within short period of time. Furthermore, it makes possible an economy of time and expense and provides a high proportion of usable response (Blunt, 1976). The questionnaire was prepared in English language and translated to Amharic language because most of the sample respondents may not have the necessary skills to read and understand the concepts that incorporated in English language.

The questionnaires were described the respondents' human capital information; included age, experience, education level, motivation and training. The second part incorporated the business related factors: include location, start-up capital, initial employee size, member, business plan, and sector. The third part incorporated the institutional factors: include access to finance, water, power, transportation, market linkage and social network. The fourth part incorporates the BDS support from other: government support, NGOs support and also growth indicators.The questionnaires were distributed and collected by researchers through the assigned data collectors. To make the data collection procedure smart and cleared from confusions, the data collectors were properly oriented about the data collection procedures by the principal investigator. In addition, the data collectors were nearly followed by researcher to give timely feedback on the data collection procedure.

3.4.2 Documents Analysis

Documents like tax and trade office summarized MSEs organization profile reports and other relevant document of the MSEs were consulted to supplement the data obtained through questionnaire.

3.4.3 Data Collection Procedures

To answer the research questions, the researcher was going through a series of data gathering procedures. These procedures were helped the researcher to get authentic and relevant data from the sample units. Thus, after having letters of authorization from Jimma University for ethical clearance, the researcher directly was going to town MSEs Organizations for pre-test of data gathering. To do so, before administrating the questionnaire, the researcher was taken 10% of the respondents, which may taken in to account 23 managers of MSEs from the enterprise that are not included in the sample.

After making agreement with the concerned participants, the researcher was introduced his objectives and purposes. Then, the final questionnaires were administered to sample MSEs managers in the selected enterprise. The participants was allowed to give their own answers to each item independently and they were closely assisted and supervised by data collectors to solve any confusion regarding to the instrument and report to investigator if any other problems. Finally, the questionnaires were collected and made ready for data analysis.

3.5 Methods of Data Processing and Analysis

To measure the performance of micro and small enterprises which was found in the study area, the employment and capital condition was used because it is the base or primary measure of growth of enterprises. The completed data collection form was examined for completeness and consistency during data management and storage. The completed copies of the questionnaire was coded and entered into the computer using the Statistical Package for the Social Sciences (SPSS 20). SPSS was also be used to conduct a descriptive analysis of the data. Descriptive analysis such as frequencies averages and percentages were computed using SPSS. Then the data was analyzed and interpreted within necessary information collected from respondents. The analysis and interpretation was based on the respondent's responses and stated by simple and clear sentences to express the category and types of qualitative data whereas quantitative data was mainly expressed by using table and percentage. Also econometric model was applied to examine the MSEs growth status in terms of employment and capital as explained below:

3.5.1 Model Specification

3.5.1.1   Econometric Model

For this study binary logistic regression model was applied to identify the determinants of MSEs growth.

3.5.1.2   Logistic Regression Model

Logistic regression is modeling approach used when the response variable is qualitative in nature or categorical and independent variables may be either continuous or categorical. Logistic regression allows one to predict a discrete outcome, such as group membership, from a set of predictor variables that may be continuous, discrete, dichotomous, or a mix of any of these (Gellman and Hill, 2007).

The logistic regression is preferred to multiple regression and discriminate analysis as it is mathematically flexible and easily used distribution and it requires fewer assumptions (Hosmer and Lemeshow, 2000). Unlike discriminate analysis, the logistic regression does not have the requirements of the independent variables to be normally distributed, linearly related, nor equal variance with in each group (Tabachnick and Fidel, 2007).

Binary logistic regression is a form of logistic regression which is used when the dependent variable is dichotomous and the independent variables are of any type (Hosmer and Lemeshow, 2000).

3.5.1.3   Assumptions of the Logistic Regression

There are assumptions that one should consider for the efficient use of logistic regression as detailed in (Hosmer and Lemeshow, 2000).

- Logistic regression assumes a non-linear relationship between the dependent and independent variables.
- Logistic regression assumes meaningful coding of the variables since it might difficult to interpret the coefficients when not coded meaningfully. The convention for binomial logistic regression is to code the dependent class of greatest interest as 1 and the other class as 0.
- Logistic regression assumes that the dependent variable must be categorical.
- In logistic regression, the groups must be mutually exclusive and exhaustive; a case can only be in one group and every case must be a member of one of the groups.
- Logistic regression requires quite large sample sizes than for linear regression, because maximum likelihood coefficients are large sample estimates.

- Logistic regression assumes linearity of independent variables.

3.5.1.4 Model Description

In logistic regression, a single outcome variable Y_i (i=1,…,n) follows a Bernoulli probability function that takes the value 1 with probability of success π_i or the value 0 with probability of failure 1- π_i.

The binary logistic regression model is described as follows. Let Y_{nx1} be a dichotomous outcome random vector with categories 1 (if a MSE is growing) and 0 (if MSE is non-growing).

Let X be an n x (k+1) matrix denote the collection of k-predictor variables of Y, i.e.

$$X = \begin{pmatrix} 1 & x_{11} & \cdots & x_{1k} \\ 1 & x_{21} & \cdots & x_{2k} \\ \vdots & \vdots & \ddots & \vdots \\ 1 & x_{n1} & \cdots & x_{nk} \end{pmatrix} \quad y = \begin{pmatrix} y_1 \\ y_2 \\ \vdots \\ y_n \end{pmatrix} \quad \beta = \begin{pmatrix} \beta_0 \\ \beta_1 \\ \vdots \\ \beta_k \end{pmatrix} \sim (k+1)x1$$

Where, X -is the design matrix

β- is the vector of unknown coefficients of the covariates and intercept

Then, the conditional probability that a MSEs growth given the X_i set of predictor variables is denoted by $P(y_i=1/x_i) = \pi_i$. And π_i can be expressed as follows:

$$\pi_i = p(y_i = 1/x_i) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(3.1)$$

The relationship between the predictor variables and response variable is not a linear function in logistic regression; instead, the logarithmic transformation of equation yields the linear relationship between the predictor and response variables. Hence, an alternative form of the logistic regression equation is the logit transformation of π_i given as follows:

$$\text{logit} (\pi_i) = \log(\frac{\pi_i}{1 - \pi_i}) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3.2$$

The transformed variable logit (π_i) is related to the explanatory variables as:

$$\text{logit} (\pi_i) = \beta_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + \cdots + \beta_k x_{ki} = x_i'\beta \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.3.3$$

where,

$\beta = (\beta_0 + \beta_1 + \beta_2 + \cdots \beta_k)'$ are parameters of model

$x_i = (1, X_{1i}, X_{2i}, \ldots, X_{ki})'$, i= 1,2,3,…,n

The coefficients can be interpreted as the change in the log-odds associated with a one unit change in the corresponding independent variable keeping the other variables constant or the odd increases multiplicatively by e^β for every one unit change increase in X.

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The probability of success is expressed as follows:

$\pi_i = p(y_i = 1 / X_{1i}, X_{2i}, \ldots, X_{ki}) = \frac{e^{x'\beta}}{1 + e^{x'\beta}}$…………………………………………3.4

Then, odds of success is given as follows

Odds $(Y_i = 1) = \frac{\pi_i}{1-\pi_i} e^{x'}\beta$……………………………………………………..3.5

3.5.2 Study Variables

Dependent variable: It is the MSEs growth. It is dichotomous variable coded as 1 if a MSE is growing and 0 if a MSE is non-growing. MSEs growth rate was computed by taking the natural logarithm of change in employment size /capital over the life of the firm following Evans (1987) model. Annual average employment/capital growth was used to measure the dependent variable (MSEs growth).

$$MSEsgr = \frac{\ln St' - \ln St}{MSEsage}$$

Where, MSEsgr = MSEs growth, lnSt' = ln of current employment, lnSt = ln of initial employment and MSEsage= age (year of business operation) of MSEs.

Independent variables:

Many independent variables are included in this study. These variables are classified as Human capital, business related factor, institutional factor and support.

Human capital:

Age of the owners (AGE): it is categorical variable taking value 1 for the average age of owners 18-25, 2 for 26-34 and 3 for above 34. Garoma (2012) reported that MSEs with younger owners has the probability to grow than older. This variable is expected to have inverse relationship with the growth of MSEs.

Sex of owners (SEX): it is   dummy variable 1 if greater than or equal to fifty percent of owners are male and 0 otherwise. The MSEs who lead by male grow faster than that of female headed (kokobe, 2013). This variable is expected to have relationship with the growth of MSEs.

Educational status of owners (EDUCSTAT): it is categorical taking value 0 if greater than or equal to fifty percent of owners education level is no education, 1 for primary,2 for secondary and 3 for diploma and above. Education level of owners and the MSEs growth have directly related and education has positive impact that improves MSEs growth with increase in education level (Dagmawit and yishak, 2016; Haftom, 2013; Habtamu, 2012; Schiebold, 2011). This variable is expected to have direct relationship with the growth of MSEs.

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Marital status of owners (MARSTAT): it is categorical variable 1 if greater than or equal to fifty percent of owners of owners Married, and 0 otherwise. study by Habtamu, (2012); Janda *et al.,* (2013) reported that married owners have high tendency of growth than others. This variable is expected to have positive relationship with the growth of MSEs.

Previous business experience (PREVEXP): it is dummy variable 1 if greater than or equal to fifty percent of owners of owners have previous business experience of MSEs &0 otherwise. The firms owners with more years of business experience have grow faster than with less experience and the previous business experience have positive impact on the growth of MSEs (Dagmawit and yishak,2016; Tassew *et al*, 2015; Kokobe, 2013; Garoma,2012; Mulu, 2007). This variable is expected to have positive relationship with the growth of MSEs.

Motivation to start business (MOTIVATION): it is dummy variable 1 if greater than or equal to fifty percent of owners join MSE by choice & 0 if it is by lack of alternative. study by Dagmawit and Yishak (2016) reported that MSEs owners who joined business by their choice grows more than that of others This variable is expected to have positive relationship with the growth of MSEs.

Entrepreneurship training (TRAINING): it is dummy variable 1 if greater than or equal to fifty percent of owners had get entrepreneurship training on MSE, and 0 otherwise. Training has positive impact on the growth of MSEs (Dagmawit and yishak, 2016). This variable is expected to have positive relationship with the growth of MSEs.

Having staff member (STAFF): it is dummy variable 1 if MSEs have staff and 0 otherwise. This variable is expected to have a relationship with the growth of MSEs.

Staff with relevant qualification (STFQUAL): it is dummy variable 1 if MSEs have staff with relevant qualification and 0 otherwise. Skilled production workers have a positive effect on the growth of MSEs (Solomon *et al.,* 2016). This variable is expected to have a positive relationship with the growth of MSEs.

Motivating staff with good pay (STFMOT): it is dummy variable 1 if MSEs have motivating staff with good pay and 0 otherwise. This variable is expected to have a relationship with the growth of MSEs.

Continuous staff training (STFTRAIN): it is dummy variable 1 if MSEs continuous staff training and 0 otherwise. Parker (1994) found that business with workers trained show statistically significantly higher growth than those businesses with untrained workers. This variable is expected to have a positive relationship with the growth of MSEs.

Staff team work (TEAMWRK): it is dummy variable 1 if MSEs have team work and 0 otherwise. This variable is expected to have a relationship with the growth of MSEs.

Retaining experienced staff (RETEXPSTF): it is dummy variable 1 if MSEs have retain experienced staff and 0 otherwise. This variable is expected to have a relationship with the growth of MSEs.

Business Related Factor:

Business location (LOCATION): it is dummy taking value 1 if enterprise found nearest MSEs & 0 for located far from downtown. The MSEs located at near to main town exhibit growth compared to MSEs located far from town centre (Dagmawit and yishak, 2016; Eshetu and Mammo ,2009). This variable is expected to have a positive relationship with the growth of MSEs.

Startup capital (STARCAP): it is continuous variable measured in Ethiopian birr, startup capital of the enterprise. The startup capital of a firm has positive impact on the growth of the MSEs (Habtamu, 2012; Haftom, 2013). This variable is expected to be direct and positive relationship with the growth of MSEs.

Initial employment size (INTIALEMP): it is continuous variable measured in number of employees of the enterprise. Initial employment size and growth of the MSEs are negatively correlated, indicating that MSEs that start business larger in size in terms of employment grow slower than their counterparts (Solomon *et al.,* 2016). This variable is expected to be inverse relationship with the growth of MSEs.

Year of business existence in operation (BUSEXIST): it is continuous variable measured in terms of number of year that business operates. The firms who are younger in age and small in size have the tendency to grow faster than the firms stay longer period and large in size (Haftom, 2013; Janda *et al.,* 2013; Mulu, 2007). This variable is expected to have effect on the growth of MSEs.

Ownership of working place (WPOWNER): it is categorical variable, 1if home, 0 otherwise. This variable is expected to have influence on the growth of MSEs.

Types of enterprise (ENTERTYP): it is categorical variable 1 if the owner of the MSE is individual, 2=family, 3= group. Business who owned by association have positive impact on growth of MSEs (Solomon *et al.,* 2016). This variable is expected to have effect on the growth of MSEs.

Business plan (BPLAN) : it is dummy variable 1 if the business plan available for enterprise & 0 otherwise. MSEs who do not prepare business plan have a greater chance of failure than that do prepare business plan (Sirpolis, 1998). This variable is expected to have positive influence on the growth of MSEs.

Sector of the enterprise (SECTOR) : it is categorical variable taking value 1if sector is service, 2=construction, 3= manufacturing, 4 trade and 5 for urban agriculture. Small business who engaged in manufacturing and service sector have grows faster than that of

the counterpart **(**Mulu, 2007; Habtamu, 2012; Haftom, 2013; Kokobe, 2013) This variable is expected to have influence on the growth of MSEs.

Institutional Factor:

Access to finance (ACCFIN) : it is dummy variable taking value 1 if enterprises have access to finance & 0 otherwise. Firm with access to finance is more likely to grow more than a firm that has a lack of financial resources (Cassar, 2004; Moreno and Casllas, 2007; Olawale and Garwe, 2010). This variable is expected to have positive influence on the growth of MSEs.

Access to sufficient electric power supply (ACCEPWR): it is dummy variable taking value 1 if they have sufficient power supply & 0 otherwise. Electric Power and MSEs growth have positive relation and power significantly affect growth of MSEs (Solomon *et al.,* 2016).   This variable is expected to have positive influence on the growth of MSEs.

Access to transportation (ACCTRP): it is dummy variable taking value 1 if they have access to transportation & 0 otherwise. This variable is expected to have positive influence on the growth of MSEs.

Access to market linkage (ACCMKTL): it is dummy variable taking value 1 if they have access to market linkage and 0 otherwise. MSEs growth and access to market linkage had significant positive relationship and the MSEs who had access to market linkage grows than no access to market linkage (Dagmawit and yishak, 2016; kokobe,2013; Mbugua *et al.,* 2013; Admasu, 2012; Mulu, 2007). This variable is expected to have positive influence on the growth of MSEs.

Social network (SOCNW): it is dummy variable taking value 1 if involvement in social network&0 otherwise. Social networking has important factor which positively influence the growth of MSEs (Kamau and Ngugi, 2014) and social network helps the firms to gain access to resource easily (Zontanos and Anderson, 2004). This variable is expected to have positive influence on the growth of MSEs.

Business Development Service Support:

Support of marketing (SUPMKT): it is dummy variable taking value 1 if they received market support from and 0 otherwise. Services provided through supporting markets-such as finance; consulting, legal, and tax advice; market information; and skills training-are often directly related to improvements in capacity (Woldie and Geta, 2015). This variable is expected to have positive influence on the growth of MSEs.

Support of IT related service (SUPIT): it is dummy taking value 1 if received IT support &0 otherwise. Technical assistance like IT service is crucial for the growth of MSEs (Admasu, 2012). This variable is expected to have positive influence on the growth of MSEs.

Support of advisory / consultancy (SUPAD): it is dummy variable taking value 1 if received advisory/consulting support &0 otherwise. Right advice/ consulting supporting service and technical assistance is crucial for the growth of MSEs (Admasu, 2012). This variable is expected to have positive influence on the growth of MSEs.

3.5.3 Pearson chi-square test

The Pearson x^2 statistic is based on observed (O) and expected (e) observations.

$$\sum_{i=1}^{n} \frac{(O-e)^2}{O} = \sum_{i=1}^{n} \frac{(y_i - n_i p_i)^2}{n_i p_i (1 - p_i)} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3.6$$

Where: y_i is the observed value of Y.

p_i is the predicted or fitted value of Y for a given of x_i

ni is the number of observations.

High values of Pearson chi-square for a given independent variables indicates that there is strong association between each of the given independent variables and the dependent variable keeping the effect of the other factors constant. That is, testing the hypothesis:

3.5.4 Wald Test

A Wald test is used to test the statistical significance of each coefficient (β) in the model. If the Wald test is significant for a particular explanatory variable, then we would conclude that the parameter associated with this variable is not zero so that the variable should be included in the model otherwise it should be omitted from the model (Agresti, 1996). The hypothesis test:

$H_o : \beta_j = 0$ VERSUS $H_A : \beta_j \neq 0$

The Wald test statistic, Z, for this hypothesis is

$$z^2 = \frac{\beta_j^2}{var(\beta_j)} \sim x^2 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3.7$$

Where, β_j is the estimated regression coefficient and var(β_j)and is the variance of β_j.

3.5.5 Model Diagnostics

Regression model building is often an iterative and interactive process. The first model we try may prove to be inadequate. Regression diagnostics are used to detect problems

with the model and suggest improvements. There are three ways that an observation can be considered as unusual, namely outlier, influential and leverage.

In logistic regression, outliers are observations whose values deviate from the expected range and produce extremely large residuals. These outliers can unduly influence the results of the analysis and lead to incorrect conclusions.

An observation is said to be influential if removing the observation substantially changes the estimate of coefficients. Influence can be thought of as the product of leverage and outliers. An observation with an extreme value on a predictor variable is called a point with high leverage. Leverage is a measure of how far an independent variable deviates from its mean. In fact, the leverage indicates the geometric extremeness of an observation in the multi-dimensional covariate space. These leverage points can have an unusually large effect on the estimate of logistic regression coefficients (Cook, 1998).

Using the following rules it is possible to identify if an observation is outlier or influential:

Residuals: Standardized, Standard, deviance and Pearson residuals are obtained using different software. Observations with values larger than three in absolute values are considered as outliers (Agresti, 2007).

DFBETAS: Measure of how much an observation has affected the estimate of a regression coefficient (there is one DFBETA for each regression coefficient, including the intercept).

Cook's D: Measure of aggregate impact of each observation on the group of regression coefficients, as well as the group of fitted values. In logistic regression, a case is identified as influential if its Cook's distance is greater than one. (Hosmer- Lemeshow, 2000).

➢ **Multicollinearity**: Before proceeding different test to estimate researcher first check existence of multicollinearity among explanatory variables. Since it is very important to identify seriously estimation Affecting variables in model. A variance inflation factor (VIF) technique is employed to detect the problem of multicollinearity among continuous explanatory variables (Gujarati, 2004).

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$$\text{VIF} = \frac{1}{1+R_i^2} \quad \text{_____} \quad (3.8)$$

Where VIF, variance inflation factors, R_i^2 is the squared multiple correlation coefficient between X_i and other explanatory variables. When the value of VIF is greater than 10, it indicates for the existence of multicollinearity.

Contingency coefficient is used for testing multicollinearity among discrete explanatory variable (Gujarati, 2004). For contingency coefficient test the following formula was used.

$$C = \sqrt{\frac{x^2}{n+x^2}} \quad \text{_____} \quad (3.9)$$

Where C is contingency coefficient, x^2 is the chi-square value and n=total sample size. For dummy variables, if the value of contingency coefficient is greater than 0.75, it is an indication of existence of the multicollinearity problem among those dummy explanatory variables.

CHAPTER FOUR

RESULT AND DISCUSSION

This chapter discusses the analytical results of the study. The first section of the chapter presents results of descriptive statistics and the second part presents the results of Binary logistic regression model to identify the most important determinants of MSEs growth. The data were collected by distributing questionnaires to 230 MSEs owners and analyzed. The Pearson Chi square statistics was used as a measure of association between dependent variable and independent variables at 95% confidence level.

4.1 Descriptive Statistics and Discussion

4.1.1 Status of MSEs in terms of Employment and Capital Growth

As argued by Baum *et al*.,(2001) the measure of growth depends on the ease of availability of the data and good judgment of the researcher, so that from the available alternatives growth measure (capital, sales, profit, employment and etc). This study employed employment size and capital amount as objective measure of MSEs growth. MSEs growth rate is computed by taking the natural logarithm of change in employment size /capital over the life of the firm following Evans (1987) model. Taking the calculated growth rate, the MSEs are classified into two broad categories, i.e. growing (if growth rate >0) and non-growing (if growth rate ≤0) following Cheng (2006) and represented in the model by 1 for the growing and 0 for survival.

Out of the total sample, 55.65% of MSEs are found non-growing and only 44.35% of them were growing. This result is consistent with different studies on the same issues, the findings of Dagmawit and yishak, 2016 found that about 40% of MSEs are growing and 60% are non-growing. Also another study by Gebreeyesus (2009) who found 69% of MSEs are non-growing type. The findings of Wasihun and Paul (2010) who found that 75.6% of the MSEs are unable to grow and only 21.9% of the MSEs are non-growing. The majority of MSEs are non-growing. Figure 1 shows the status of MSEs measured in terms of employment growth rate.
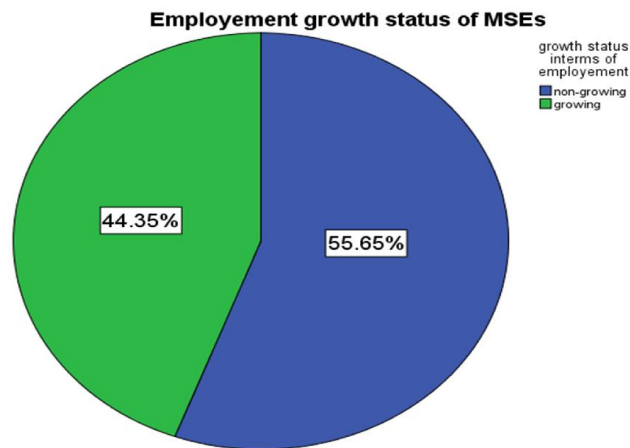
Figure 4.1. Status of MSEs in terms of Employment

In terms of capital growth out of the total sample MSEs, 70.87% of them were growing and the remaining 29.13% of MSEs were non-growing. This is in line with the study by Dagmawit and yishak (2016) who found that about 69% of MSEs were growing in terms of capital and 31% the lower portion of MSEs were non-growing.

Based on this study the majority of MSEs were non- growing in terms of employment growth but they are growing in terms of capital.
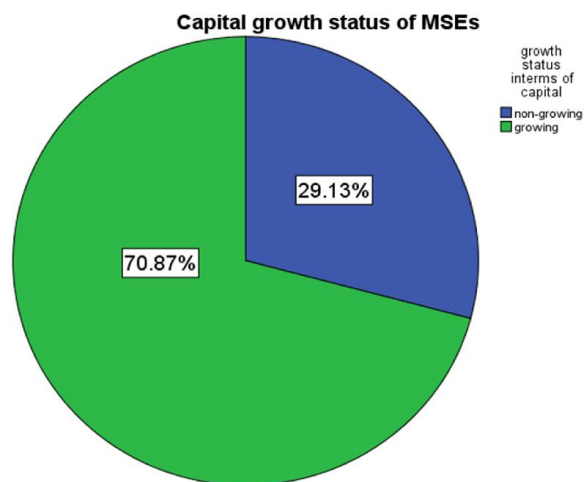
Figure 4.2. Status of MSEs in terms of capital

4.1.2 Human Capital and Employment growth

4.1.2.1 Owners Related Factor and Employment Growth

Among the total of 230 MSEs, age range from 18-25 constitutes 88(38.3%) respondents, the age range from 26-34 constitutes 112(48.7%) respondents and the remaining 13.0 % of respondents were constituted in age range of older than 34 years. According to result displayed in table 4.1 the proportion of the growing MSES was highest for those whose age range is in 26-34 accounting 69.6% followed by age of 18-25 constituting 18.6% while lowest proportion of growing MSEs was observed for the age range of older than 34 accounting 11.8%. Among the non growing MSEs 53.9 % of MSE owner's age was 18-25, MSEs age between 26-34 were 32% and 14.1 % were above 34 years old. There was statistically significant association between independent variable age and employment growth with $\chi^2 = 35.155$ and p = 0.000 at 5% level of significance. This is consistent with the study of Dagmawit and yishak (2016) which shows the younger MSEs with age of less than 29 years old are growing than older one. This supports the finding of Garoma (2012) who found that most successful entrepreneurs are found within 20-30 years of age on average.

About 76.1% of the respondents of this study were found to be male MSE owners while 23.9% were found to be female MSE owners. This implies that majority of MSE owners and the activities in the town are carried out by men. It is in line with the study by Habtamu *et al.,* (2013) revealed that most of the MSEs are owned and operated by male. This is also contrary to the study by Mead and Liedholm, (1998) who reported that in most countries, majority of MSEs are owned and operated by women. Among the growing MSEs, majority of (73.5%) were male MSE owners and only 23.9 % were female. In same, among the non growing MSEs 78.1 % of MSE owners were male and only 21.9 % were female. There was no statistically significant association between independent variable sex and employment growth with $\chi^2 = 0 .659$ and p = 0.417 at 5% level of significance.

Regarding marital status 37.4% of the respondents were single while majority 57.4% of them were married. On the other hand, divorced and widowed respondents account 2.6% and 2.6 % respectively. About 66.7% of the growing MSEs were married and 33.3 % were single. Among the non-growing MSEs 50% were married and 40.6% were single.

The remaining accounts for both divorced and widowed were 4.7% each. There was statistically significant association between independent variable marital status and employment growth with $\chi^2 = 13.117$ and p = 0.004 at 5% level of significance. This is in line with the study by Habtamu, (2012); Janda *et al.,* (2013) who reported married owners have high tendency of growth than others.

In this study out of the total sample, 18.7 % of MSEs have owners who were in primary education and 41.7 % of MSEs have owners that who were in secondary education. MSEs owners who have diploma and above accounts 39.6%. Out of the growing MSEs 58.8 % of MSE Owners were diploma and above, 29.4 % were secondary education and only 11.8 % are primary education. This shows that, most of growing MSE's owners had high education level. Among the non-growing MSEs 24.2% were primary education, 51.6 % were secondary and 24.2% diploma and above. There was statistically significant association between independent variable education and employment growth with $\chi^2 = 28.563$ and p = 0.000 at 5% level of significance. Most of the growing MSEs owners had diploma and above followed by secondary school. This is consistent with the study of Dagmawit and yishak, 2016; Habtamu, 2012; Haftom (2013) who found that most of the growing MSEs are completed grade 12 and above.

Table 4.1a Owners related factor and employment growth

Variable	Category	growth status in terms of employment						χ^2 and P
		non-growing		growing		Total		
		N	N %	N	N %	N	N %	
age	18-25	69	53.9%	19	18.6%	88	38.3%	35.155
	26-34	41	32.0%	71	69.6%	112	48.7%	
	>34	18	14.1%	12	11.8%	30	13.0%	0.000
	Total	128	100%	102	100%	230	100%	
Sex	Male	100	78.1%	75	73.5%	175	76.1%	0.659
	Female	28	21.9%	27	26.5%	55	23.9%	
	Total	128	100%	102	100%	230	100%	0.417

Marital status	Single	52	40.6%	34	33.3%	86	37.4%	13.117
	Married	64	50.0%	68	66.7%	132	57.4%	
	Widowed	6	4.7%	0	0.0%	6	2.6%	0.004
	Divorced	6	4.7%	0	0.0%	6	2.6%	
	Total	128	100%	102	100%	230	100%	
Educational status	no education	0	0.0%	0	0.0%	0	0.0%	28.563
	primary	31	24.2%	12	11.8%	43	18.7%	
	secondary	66	51.6%	30	29.4%	96	41.7%	0.000
	diploma and above	31	24.2%	60	58.8%	91	39.6%	
	Total	128	100%	102	100%	230	100%	

Source: own survey, 2017

According to the survey result, about 52.6 % of MSEs owners had previous business experience and the rest 47.4% had no previous experience. Among the growing MSEs, 83.3 % of MSEs owners have previous business experience and only 16.7 % had no experience. Out of the total non growing MSEs, 71.9 % had no experience and 28.1 % had business experience. There was statistically significant association between independent variable experience and employment growth with χ^2 = 69.396 and p = 0.000 at 5% level of significance. As shown in the above most of the growing MSEs owners had previous business experience. This is in line with the study of dagmawit and yishak (2016) who reported that owners who have previous business experience more likely to grows than owners who do not have previous business experience. This is also consistent with the findings of Garoma (2012) and Tassew *et al*, (2015).

The survey result in Table 5 indicated that about 34.8 % of MSE owners joined MSE because of lack of alternative, while 65.2 % of them joined by their choice. Among the growing MSEs 83.3 % of MSEs owners joined MSE by choice, 16.7 % joined because of lack of alternative. Out of the total non-growing MSEs 49.2 % of MSE's owners joined MSE

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because of lack of alternative, 50.8 % by choice. There was statistically significant association between independent variable motivation and employment growth with $\chi^2 = 26.516$ and p = 0.000 at 5% level of significance. The result of this survey is consistent with the study of Dagmawit and Yishak (2016) who reported that MSEs owners who joined business by their choice grows more than that of others and also it is consistent with Garoma (2012). But the result of this survey is consistent with Block and Sandner (2009) they found that being an entrepreneur out of necessity or opportunity driven motives does not have significant impact on duration in self-employment.

Out of the total MSEs about 53.9 % of MSEs owners participated in entrepreneurship training and 46.1 % of them were not participated in the training. Out of the growing MSEs, 69.6 % of owners participated in training and only 30.4% owners were not participated. Among the non growing MSEs 27.3 % were trained and 72.7 % were not trained. There was statistically significant association between independent variable training and employment growth with $\chi^2 = 40.806$ and p = 0.000 at 5% level of significance. This result is consistent with Dagmawit and yishak (2016) who found significant association between entrepreneurial training and MSEs growth. But it is inconsistent with the findings of Garoma (2012) who found insignificant association between Entrepreneurial training of the owner and success on micro enterprises in Addis Ababa.

Table 4.1b Owners related factor and employment growth

Variable	Category	growth status in terms of employment						χ^2
		non-growing		growing		Total		and P
		N	N %	N	N %	N	N %	
previous experience	No experience	92	71.9%	17	16.7%	109	47.4%	69.39
	Have experience	36	28.1%	85	83.3%	121	52.6%	
	Total	128	100%	102	100%	230	100%	0.000
motivation	by choice	65	50.8%	85	83.3%	150	65.2%	26.51
	lack of alternative	63	49.2%	17	16.7%	80	34.8%	
	Total	128	100%	102	100%	230	100%	0.000

Entrepreneur ship training	Not trained	93	72.7%	31	30.4%	124	53.9%	40.80
	Trained	35	27.3%	71	69.6%	106	46.1%	
	Total	128	100%	102	100%	230	100%	0.000

Source: own survey, 2017

4.1.2.2   Staff Related Factor and Employment Growth

Out of the total MSEs, 74.8 % of MSEs had staff and 25.2 had no staff members. Among the growing MSEs 90.2 % had staff and only 9.8 % had no staff. Among the non-growing MSEs, 62.5 % of MSEs had staff member and 37.5% had no staff. There was statistically significant association between independent variable staff and employment growth with $\chi^2 = 23.090$ and p = 0.000 at 5% level of significance. Regarding relevant qualification of the staff of MSEs, 53.5 % had relevant qualification and 46.5 % had no relevant qualification. Among the growing MSEs, 80.4% had relevant qualification and only 19.6 % had no relevant qualification. Among the non-growing MSEs, 32% had relevant qualification and 68 % had no relevant qualification of the staff. There was statistically significant association between independent variable relevant qualification and employment growth with $\chi^2 = 53.363$ and p = 0.000 at 5% level of significance.

Out of the total MSEs, 55.7 % of MSEs there was team work and 44.3 % there was no team work. Among the growing MSEs 66.7% indicated there was team work among employees and 33.3 % were indicated that there were no team work among employees. Among the non-growing MSEs, 46.9 % were indicated there was team work and 53.4 % indicated no team work among employees. There was statistically significant association between independent variable team work and employment growth with $\chi^2 = 9.009$ and p = 0.003 at 5% level of significance. Regarding the continuous staff training from the total MSEs, 37.4 % indicated continuous training and the remaining   62.6% indicated that there was no continuous staff training. Among the growing MSEs 38.2 % were mentioned that there were continuous training and 61.8% were no continuous training. There was no statistically significant association between independent variable staff training and employment growth with $\chi^2 = 0.056$ and p = 0.813 at 5% level of significance.

Out of the total MSEs, 41.7 % were motivating staff with good pay and 58.3% were not motivated. Among the growing MSEs, 62.7% were motivating and 37.3 % were not motivating. Among the non-growing MSEs, 25% were motivating and 75% were not motivating staff with good pay. There was statistically significant association between independent variable motivating staff with pay and employment growth with $\chi^2 = 33.257$ and p = 0.000 at 5% level of significance.

The survey result indicated that about, 38.7 % of the MSEs were retaining experienced staff and 61.3% were not retaining experienced staff. Among the growing MSEs, 52.9 % were retained and 47.1 % were not retaining experienced staff. Among the growing MSEs, 27.3 % were retained and 72.7 % were not retaining experienced staff. There was statistically significant association between independent variable retaining experienced staff and employment growth with $\chi^2 = 15.679$ and p = 0.000 at 5% level of significance.

Table 4.2 Staff related factor and employment growth

Variable	Category	growth status in terms of employment						χ^2 and P
		non-growing		growing		Total		
		N	N %	N	N %	N	N%	
Staff	No staff	48	37.5%	10	9.8%	58	25.2%	23.090
	Have staff	80	62.5%	92	90.2%	172	74.8%	
	Total	128	100%	102	100%	230	100%	0.000
staff qualification	Not qualified	87	68.0%	20	19.6%	107	46.5%	53.363
	qualified	41	32.0%	82	80.4%	123	53.5%	
	Total	128	100%	102	100%	230	100%	0.000
team work	No team work	68	53.1%	34	33.3%	102	44.3%	9.009
	Team work	60	46.9%	68	66.7%	128	55.7%	
	Total	128	100%	102	100%	230	100%	0.003
Staff training	No training	81	63.3%	63	61.8%	144	62.6%	0.056
	Training	47	36.7%	39	38.2%	86	37.4%	
	Total	128	100%	102	100%	230	100%	0.813
motivating staff	No motivation	96	75.0%	38	37.3%	134	58.3%	33.257
	Motivation	32	25.0%	64	62.7%	96	41.7%	
	Total	128	100%	102	100%	230	100%	0.000
retain experienced staff	Not retain	93	72.7%	48	47.1%	141	61.3%	15.679
	Retain	35	27.3%	54	52.9%	89	38.7%	
	Total	128	100%	102	100%	230	100%	0.000

4.1.3 Business Related Factor and Employment Growth

The survey result from Table 2 shows that 57.8 % of sample MSEs are group owned, 17.2 % are family owned and only 25.2 % of MSEs are individual owned. This imply that majority of MSEs in the study area are group owned, among the growing MSEs, 71.6 % were group owned, 16.7% were family owned and 11.8% were individual owned. Among the non-growing 46 .9% were group, 17.2 % were family and 35.9 % were individual owned. There was statistically significant association between independent variable enterprise type and employment growth with $\chi^2 = 19.148$ and p = 0.000 at 5% level of significance.

The result of this study indicated that 71.3% of MSEs were between 3-6 years of existence, 21.7% were 7-10 year of existence in the business, 6.1% were existed between 11-14 years and only 0.9 % of MSEs were existed more than 14 years. Among the growing MSEs, 59.8% were between the year of 3-6 , 31.4% were between 7-10 year, 2% were more than 14 years. Among non-growing MSEs, 80.5% were 3-6 year, 14.1 % were 7-11 year, and the remaining 5.5% were 11-14 years. There was statistically significant association between independent variable year of existence and employment growth with $\chi^2 = 13.915$ and p = 0.003 at 5% level of significance. As the result showed most of the growing MSEs were in the age of 3-6 and 7-10 years which are less than 10 years and it indicates most likely the younger MSEs are grows than the older MSEs. This result is in consistent with that of kokobe (2013) who reported that most of the older MSEs have the probability to grows more in terms of employment.

Out of the total MSEs, about 48.7 % of MSEs operate in their home, 30.9% operates in rental house, 12.6 % in government constructed, and 7.8 % at NGO constructed. Among the growing MSEs, 59.8 % operates at home, 17.6 % operates in rental houses and 22.5 % in government constructed. On the other hand, among the non-growing MSEs about 39.8 % operates at home, 41.4% operates in rental houses,4.7% operates in government constructed and the remaining 14.1 operates at NGO constructed working place. There was statistically significant association between independent variable working place and employment growth with $\chi^2 = 43.732$ and p = 0.000 at 5% level of significance. This is

consistent with the findings of Habtamu (2013) who reported most of the MSEs work their business at home grows than MSEs work on rental houses.

Out of the total sample, about 63.9% of MSEs operate their business near to the downtown and 36.1% of them located far from the downtown or city centre. Among the growing MSEs, 89.2 % of MSEs are located near to the downtown and only 10.8 % located far from the downtown. Out of the total non growing MSEs, 43.8 % MSEs located near to the city centre or downtown. There was statistically significant association between independent variable location and employment growth with $\chi^2 = 50.876$ and p = 0.000 at 5% level of significance. This result is consistent to the findings of Dagmawit and yishak (2016) and Eshetu and Mammo (2009), they found that MSEs located at near to main town exhibit growth compared to MSEs located far from town centre. The result is contrary to the findings of Habtamu (2013) who found that MSEs operate in town centre have low probability of growth compared to those operate out of the town.

As Table 4.3a indicates 68.3 % of MSEs had plan for their business out of the total sample and 31.7% had no business plan. Most of the growing MSEs (84.3%) had business plan and only 15.7 % of growing MSEs had no business plan. About 55.5 % of non growing MSEs had business plan and the remaining 44.5 % had no business plan. There was statistically significant association between independent variable business plan and employment growth with $\chi^2 = 21.800$ and p = 0.000 at 5% level of significance. This is consistent with the finding of Dagmawit and yishak (2016) who found significant association between business plan and growth of MSEs and also that Business that do not prepare a business plans have a greater chance of failure than business that do.

Table 4.3a Business related factor and employment growth

Variable	Category	growth status in terms of employment						χ^2 and P
		non-growing		growing		Total		
		N	N %	N	N %	N	N%	
Type of	Group	60	46.9%	73	71.6%	133	57.8%	19.148
enterprise	individual	46	35.9%	12	11.8%	58	25.2%	
	family	22	17.2%	17	16.7%	39	17.0%	0.000
	Total	128	100.0%	102	100%	230	100%	
business	3-6yr	103	80.5%	61	59.8%	164	71.3%	13.915
existence	7-10yr	18	14.1%	32	31.4%	50	21.7%	0.003

	11-14yr	7	5.5%	7	6.9%	14	6.1%	
	.>14yr	0	0.0%	2	2.0%	2	0.9%	
	Total	128	100%	102	100%	230	100%	
Owner of working place	Home	51	39.8%	61	59.8%	112	48.7%	43.732
	rental	53	41.4%	18	17.6%	71	30.9%	0.000
	Govt	6	4.7%	23	22.5%	29	12.6%	
	NGO	18	14.1%	0	0.0%	18	7.8%	
	Total	128	100%	102	100%	230	100%	
Location	far downtown	72	56.2%	11	10.8%	83	36.1%	50.876
	near downtown	56	43.8%	91	89.2%	147	63.9%	0.000
	Total	128	100%	102	100%	230	100%	
Business plan	No plan	57	44.5%	16	15.7%	73	31.7%	21.800
	Have plan	71	55.5%	86	84.3%	157	68.3%	0.000
	Total	128	100%	102	100%	230	100%	

Source: own survey,2017

Out of 22 MSEs operate in service sector only 10 MSEs (45%) are growing and the rest 12 MSEs (55%) are non-growing. Among 60 MSEs operate in manufacturing sector 44% are growing and 56 % are non-growing. Out of 68 MSEs in construction sector 40 MSEs (58%) are growing and 28 (42%) MSEs are non-growing. Only 14 (28%) MSEs in trade sector are growing, the rest 36 (72 %) are non-growing. Among 30 MSEs operate in urban agriculture only 12(40%) MSEs are growing type, the rest 18 (60%) of MSEs are non growing. Out of the total growing MSEs, service sector accounts 9.8 %, manufacturing 25.5 %, construction 39.2 %, trade 13.7 % and urban agriculture 11.8 % (Table). There was statistically significant association between independent variable location and employment growth with χ^2 = 11.453 and p = 0.022 at 5% level of significance. As this result shows more of the portion of employment growth were in the construction and manufacturing sector which indicates there were more employment opportunities created by the two sectors than others. This result is consistent with the study of kokobe (2013) who reported that construction and manufacturing sector more likely to generate new job.

The startup capital(in Birr) category of the total MSEs shows that 0.9% are between the range of 100-5000, 19.1% are between 5001-10000, 22.2% are between 10001-50000,

30% are between 50001-100000 and 27% are greater than 100000. Among the growing MSEs 1% are between the range of 100-5000, 6.9% are between 5001-10000, 23.5% are between 10001-50000, 32.4% are between 50001-100000 and 36.3% are greater than 100000. Among the non-growing MSEs 0.8% are between the range of 100-5000, 28.8 % are between 5001-10000, 21.1% are between 10001-50000, 28.1 % are between 50001-100000 and 21.1% are greater than 100000. There was statistically significant association between independent variable startup capital and employment growth with $\chi^2 = 19.636$ and p = 0.001 at 5% level of significance. This result is consistent with the result of Habtamu *et al.,* (2013) who reported most of the growing MSEs have higher startup capital than the non-growing MSEs.

Initial employment size of the MSEs indicated that about 75.2% of the MSEs had started their operation with less than five employees whereas, 24.8 % of the MSEs started their operation with the employee number between 6 to 30. Among the growing MSEs, 71.6 % had initial employment size of less than five and the rest 28.4% had 6 to 30 employees. Among the non-growing 78.1% of MSEs started their business with less than five employees and the remaining 21.9% were started their operation with employees between 6 to 30. There was no statistically significant association between independent variable initial employee size and employment growth with $\chi^2 = 1.309$ and p = 0.253 at 5% level of significance. This is in line with the study of Hailay *et al.,* (2014) who reported there is no clear linkage between initial employee size and growth of MSE employment size.

Table 4.3b Business related factor and employment growth

Variable	Category	growth status in terms of employment						χ^2 and P
		non-growing		growing		Total		
		N	N %	N	N %	N	N%	
Sector	Service	12	9.4%	10	9.8%	22	9.6%	11.45
	Manufacturing	34	26.6%	26	25.5%	60	26.1%	
	Construction	28	21.9%	40	39.2%	68	29.6%	0.022
	trade	36	28.1%	14	13.7%	50	21.7%	
	urban agriculture	18	14.1%	12	11.8%	30	13.0%	
	Total	128	100%	102	100%	230	100%	
Startup capital	100-5000	1	0.8%	1	1.0%	2	0.9%	19.63
	5001-10000	37	28.9%	7	6.9%	44	19.1%	
	10001-50000	27	21.1%	24	23.5%	51	22.2%	0.001

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	50001-100000	36	28.1%	33	32.4%	69	30.0%	
	>100000	27	21.1%	37	36.3%	64	27.8%	
	Total	128	100%	102	100%	230	100%	
initial employment	<=5	100	78.1%	73	71.6%	173	75.2%	1.309
size	6-30	28	21.9%	29	28.4%	57	24.8%	
	Total	128	100%	102	100%	230	100%	0.253

Source: Own survey, 2017

4.1.4 Institutional Factor and Employment Growth

Out of the total samples, 58.7 %MSEs had access to finance and 41.3% of MSEs had no access to finance. Among the growing MSEs, 83.3 % had access to finance and 16.7 % had no access to finance. In relation to non-growing MSEs about 39.1% had access to finance and 60.9 % had no access to finance. For most of the respondents the source of finance were microfinance and other sources. There was statistically significant association between independent variable access to finance and employment growth with $\chi^2 = 45.890$ and p = 0.000 at 5% level of significance. This is inconsistent with the findings of Dagmawit and Yishak (2016).

Out of the total samples, market linkage was created for 65.2 % MSEs. Among the total growing MSEs, 90.2 % of MSEs had access to market linkage and only 9.8 % of MSEs had no access to market linkage. Among non growing MSEs, 45.3 % of MSEs had access to market linkage and 54.7 had no access to market linkage. Majority of MSEs had forward linkage with buyers. There was statistically significant association between independent variable access to market linkage and employment growth with $\chi^2 = 50.412$ and p = 0.000 at 5% level of significance. This result is consistent with the results of Dagmawit and yishak (2016); kokobe (2013) who reported there is significant relationship between employment growth and market linkage.

About 82.6% of MSEs have access to sufficient power supply only 17.4 % had no access to sufficient power supply. Among the growing MSEs, 87.3% had access to power supply and the remaining MSEs (12.7%) have no access to sufficient power supply. Also among the non-growing MSEs 78.9% had access to power supply and the remaining 21.1% of MSEs does not have access to sufficient electric power. There was no statistically insignificant association between independent variable access to electric power and

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employment growth with χ^2 = 2.754 and p = 0.097 at 5% level of significance. This is inconsistent with the findings of Dagmawit and Yishak (2016).

Almost all of MSEs (87%) had access to transport and only 13 % of MSEs responded that they have no access to transport. Among the growing MSEs, almost all of MSEs (97.1%) had access to transport and only 2.9 % of MSEs responded that they have no access to transport. Among the non-growing MSEs, 71.9% had access to transport and 28.1% had no access to transport. There was statistically significant association between independent variable access to transportation and employment growth with χ^2 = 25.567 and p = 0.000 at 5% level of significance. This is inconsistent with the findings of Dagmawit and Yishak (2016). About 54.3% of MSEs involved in social network and 45.7% of MSEs responded that they had no social network. Among the growing 86.3% of MSEs are involved in social network and only 13.7 % of MSEs are not involved in social network. Among the non-growing MSEs, 28.9 % involved in social network and most of the MSEs (71.1%) are not involved in social network. There was statistically significant association between independent variable social network and employment growth with χ^2 = 75.298 and p = 0.000 at 5% level of significance.

Table 4.4 Institutional factor and employment growth

Variable	category	growth status in terms of employment						χ^2
		non-growing		growing		Total		and P
		N	N %	N	N %	N	N%	
Access to	No access	78	60.9%	17	16.7%	95	41.3%	45.89
Finance	Have access	50	39.1%	85	83.3%	135	58.7%	0.000
	Total	128	100%	102	100%	230	100%	
Access to	No access	70	54.7%	10	9.8%	80	34.8%	50.41
market	Have access	58	45.3%	92	90.2%	150	65.2%	0.000
linkage	Total	128	100%	102	100%	230	100%	
access to	No access	27	21.1%	13	12.7%	40	17.4%	2.754
electric power	Have access	101	78.9%	89	87.3%	190	82.6%	0.097
	Total	128	100%	102	100%	230	100%	
access to	No access	36	28.1%	3	2.9%	39	17.0%	25.56
transportation	Have access	92	71.9%	99	97.1%	191	83.0%	0.000
	Total	128	100%	102	100%	230	100%	

social network	No involved	91	71.1%	14	13.7%	105	45.7%	75.29
	involved	37	28.9%	88	86.3%	125	54.3%	0.000
	Total	128	100%	102	100%	230	100%	

Source: Own survey, 2017

4.1.5 BDS Support and Employment Growth

Out of the total MSEs, about 63.5% of MSEs had been supported to get market access and the remaining 36.5% were not been supported. Among the growing MSEs, 87.3% of them are supported to get market access and the remaining only 12.7 % of MSEs had not get support to get market access. Among the non-growing MSEs, 44.5% of them are supported to get market access and the remaining 55.5% of them are not supported to get market access. MSEs who got support of market access were exhibition, market information and trade fair. There was statistically significant association between independent variable support to market access and employment growth with $\chi^2 = 44.693$ and p = 0.000 at 5% level of significance.

Out of the total MSEs, about 23.5% of MSEs had been supported to get IT related service and the remaining 76.5% were not been supported. Among the growing MSEs, 27.5% of them are supported to get IT related service and the remaining most of them which are 72.5 % of MSEs had not get support of IT related service. In the same way, among the non-growing MSEs, 20.3% of them are supported to get IT related service and the remaining most of them which are 79.7 % of MSEs had not get support of IT related service. MSEs who got support of IT were computer services. There was no statistically significant association between independent variable support of IT related service and employment growth with $\chi^2 = 1.610$ and p = 0.204 at 5% level of significance.

Out of the total MSEs, about 65.7% of MSEs had been supported to get advisory and consulting service and the remaining 34.3% were not been supported. Among the growing MSEs, 86.3% of them are supported to get advisory and consulting service and the remaining 13.7 % of MSEs had not get support of advisory and consulting service. Among the non-growing MSEs, 49.2% of them are supported to get advisory and consulting service and the remaining which are 50.8 % of MSEs had not get support of advisory and consulting service. MSEs who got advisory were book keeping, business plan, tax and saving. There was statistically significant association between independent

variable support of advisory and consulting and employment growth with $\chi^2 = 34.566$ and p = 0.000 at 5% level of significance.

Table 4.5 BDS related factor and employment growth

Variable	category	growth status in terms of employment						χ^2
		non-growing		growing		Total		and P
		N	N %	N	N %	N	N%	
Support of market	No support	71	55.5%	13	12.7%	84	36.5%	44.693
	supported	57	44.5%	89	87.3%	146	63.5%	
	Total	128	100%	102	100%	230	100%	0.000
support of IT	No support	102	79.7%	74	72.5%	176	76.5%	1.610
	supported	26	20.3%	28	27.5%	54	23.5%	0.204
	Total	128	100%	102	100%	230	100%	
Support of advisory or consulting	No support	65	50.8%	14	13.7%	79	34.3%	34.566
	supported	63	49.2%	88	86.3%	151	65.7%	0.000
	Total	128	100%	102	100%	230	100%	

Source: Own survey, 2017

4.1.6 Human Capital and Capital Growth

4.1.6.1 Owners Related Factor and Capital Growth

Among the total of 230 MSEs, age range from 18-25 constitutes 88(38.3%) respondents, the age range from 26-34 constitutes 112(48.7%) respondents and the remaining 13.0 % of respondents were constituted in age range of older than 34 years. According to result displayed in table 4.1 the proportion of the growing MSES was highest for those whose age range is in 26-34 accounting 58.9% followed by age of 18-25 constituting 28.8% while lowest proportion of growing MSEs was observed for the age range of older than 34 accounting 12.3%. In contrary, among the non-growing MSEs 61.2 % of MSE owner's age is 18-25, MSEs age between 26-34 is 23.9% and 14.9 % were above 34 years old. There was statistically significant association between independent variable age and capital growth with $\chi^2 = 25.207$ and p = 0.000 at 5% level of significance. This supports the findings of Dagmawit and yishak (2016) who found that most of the growing MSEs owners age found less than 29 years old. And also supports the finding of Garoma (2012) who found that most successful entrepreneurs are found within 20-30 years of age on average.

About 76.1% of the respondents of this study were found to be male MSE owners while 23.9% were found to be female MSE owners. This implies that majority of MSE owners and the activities in the town are carried out by men. Among the growing MSEs, majority of (74.2%) were male MSE owners and only 25.8 % were female. In the same way, among the non growing MSEs 80.6 % of owners were male and only 19.4 % were female. There was no statistically significant association between independent variable sex and capital growth with $\chi^2 = 1.057$ and p = 0.304 at 5% level of significance.

Regarding marital status 37.4% of the respondents were single while majority 57.4% of them were married. On the other hand, divorced and widowed respondents account 2.6% and 2.6 % respectively. About 66.9% of the growing MSEs were married and 29.4 % were single and the remaining 3.7% were divorced. Among the non-growing MSEs 34.3 % were married and 56.7% were single. The remaining 9% were accounts for widowed. There was statistically significant association between independent variable marital status and capital growth with $\chi^2 = 35.268$ and p = 0.000 at 5% level of significance.

In this study out of the total sample, 18.7 % of MSEs have owners who were in primary education and 41.7 % of MSEs have owners that who are in secondary education. MSEs owners who have diploma and above accounts 39.6%. Out of the growing MSEs 48.5 % of MSE Owners are diploma and above, 31.3 % are secondary education and only 20.2 % are primary education. This shows that, most of growing MSE's owners has high education level. Among the non-growing MSEs 14.9% were primary education, 67.2 % were secondary and 17.9% diploma and above. There was statistically significant association between independent variable education and capital growth with $\chi^2 = 26.566$ and p = 0.000 at 5% level of significance. This result is consistent with the result of study by Dagmawit and yishak (2016) found that education and capital growth of MSEs had significant relationship and most of the growing MSEs education level found grade 12 and above.

Table 4.6a Owners related factor and capital growth

Variable	category	growth status interms of capital						χ^2 and P
		non-growing		growing		Total		
		N	N %	N	N %	N	N %	
Age	18-25	41	61.2%	47	28.8%	88	38.3%	25.207
	26-34	16	23.9%	96	58.9%	112	48.7%	

	>34	10	14.9%	20	12.3%	30	13.0%	0.000
	Total	67	100%	163	100%	230	100%	
Sex	Male	54	80.6%	121	74.2%	175	76.1%	1.057
	female	13	19.4%	42	25.8%	55	23.9%	0.304
	Total	67	100%	163	100%	230	100%	
Marital status	single	38	56.7%	48	29.4%	86	37.4%	35.268
	married	23	34.3%	109	66.9%	132	57.4%	0.000
	widowed	6	9.0%	0	0.0%	6	2.6%	
	divorced	0	0.0%	6	3.7%	6	2.6%	
	Total	67	100%	163	100%	230	100%	
Educational status	no education	0	0.0%	0	0.0%	0	0.0%	26.566
	primary	10	14.9%	33	20.2%	43	18.7%	0.000
	secondary	45	67.2%	51	31.3%	96	41.7%	
	diploma and above	12	17.9%	79	48.5%	91	39.6%	
	Total	67	100%	163	100%	230	100%	

Source: Own survey, 2017

According to the survey result, about 52.6 % of MSEs owners had previous business experience and the rest 47.4% had no previous experience. Among the growing MSEs, 72.4 % of MSEs owners have previous business experience and only 27.6 % had no experience. Out of the total non growing MSEs, 95.5 % had no experience and 4.5 % had business experience. There was statistically significant association between independent variable experience and capital growth with $\chi^2 = 87.844$ and p = 0.000 at 5% level of significance. This is consistent with the study by Dagmawit and yishak (2016) found that most of the growing MSEs owner had previous business experience and capital growth and previous experience significantly associated. And also it is consistent with the findings of Garoma (2012) and Tassew *et al.,* (2015).

The survey result in Table 5 indicated that about 34.8 % of MSE owners joined MSE because of lack of alternative, while 65.2 % of them joined by their choice. Among the growing MSEs 71.8 % of MSEs owners joined MSE by choice, 28.2 % joined because of lack of alternative. Out of the total non-growing MSEs 49.3 % of MSE's owners joined MSE

because of lack of alternative, 50.7 % by choice. There was statistically significant

association between independent variable motivation and capital growth with $\chi^2 = 10.621$ and p = 0.001 at 5% level of significance. The result of this survey is consistent with Garoma (2012) and Dagmawit and Yishak (2016). And also consistent with Block and Sandner (2009) they found that being an entrepreneur out of necessity or opportunity driven motives does not have significant impact on duration in self-employment.

Out of the total MSEs about 53.9 % of MSEs owners participated in entrepreneurship training and 46.1 % of them were not participated in the training. Out of the growing MSEs, 62 % of owners participated in training and only 38% owners were not participated. Among the non growing MSEs 7.5 % were trained and 92.5 % were not trained. There was statistically significant association between independent variable training and capital growth with $\chi^2 = 56.763$ and p = 0.000 at 5% level of significance. This result is inconsistent with the findings of Dagmawit and yishak (2016) and Garoma (2012) who found insignificant association between Entrepreneurial training of the owner and success on micro enterprises in Addis Ababa.

Table 4.6b Owners related factor and capital growth

Variable	category	growth status in terms of capital						χ^2 and P
		non-growing		growing		Total		
		N	N %	N	N %	N	N %	
previous experience	No experience	64	95.5%	45	27.6%	109	47.4%	87.844
	Have experience	3	4.5%	118	72.4%	121	52.6%	
	Total	67	100%	163	100%	230	100%	0.000
motivation	by choice	33	49.3%	117	71.8%	150	65.2%	10.621
	lack of alternative	34	50.7%	46	28.2%	80	34.8%	0.001
	Total	67	100%	163	100%	230	100%	
Entrepreneurship training	Not trained	62	92.5%	62	38.0%	124	53.9%	56.763
	Trained	5	7.5%	101	62.0%	106	46.1%	0.000
	Total	67	100%	163	100%	230	100%	

Source: Own survey, 2017

4.1.6.2   Staff Related Factor and Capital Growth

Out of the total MSEs, 74.8 % of MSEs had staff and 25.2 had no staff members. Among the growing MSEs 87.1 % had staff and only 12.9 % had no staff. Among the non-growing MSEs, 44.8 % of MSEs had staff member and 55.2% had no staff. There was

statistically significant association between independent variable staff and capital growth with χ^2 = 45.138 and p = 0.000 at 5% level of significance. Regarding relevant qualification of the staff of MSEs, 53.5 % had relevant qualification and 46.5 % had no relevant qualification. Among the growing MSEs, 65.6% had relevant qualification and only 34.4 % had no relevant qualification. Among the non-growing MSEs, 31.3% had relevant qualification and 68.7 % had no relevant qualification of the staff. There was statistically significant association between independent variable relevant qualification and capital growth with χ^2 = 33.289 and p = 0.000 at 5% level of significance.

Out of the total MSEs, 55.7 % of MSEs there was team work and 44.3 % there was no team work. Among the growing MSEs 65.6% indicated there was team work among employees and 34.4 % were indicated that there were no team work among employees. Among the non-growing MSEs, 31.3 % were indicated there was team work and 68.7 % indicated there was no team work among employees. There was statistically significant association between independent variable team work and capital growth with χ^2 = 22.636 and p = 0.000 at 5% level of significance.

Regarding the continuous staff training from the total MSEs, 37.4 % indicated continuous training and the remaining 62.6% indicated that there was no continuous staff training. Among the growing MSEs 44.2 % were mentioned that there were continuous training and 55.8% were no continuous training. There was statistically significant association between independent variable staff training and capital growth with χ^2 = 10.989 and p = 0.001 at 5% level of significance.

Out of the total MSEs, 41.7 % were motivating staff with good pay and 58.3% were not motivated. Among the growing MSEs, 50.9% were motivating and 49.1 % were not motivating. Among the non-growing MSEs, 19.4% were motivating and 80.6% were not motivating staff with good pay. There was statistically significant association between independent variable motivating staff with pay and capital growth with χ^2 = 19.396 and p = 0.000 at 5% level of significance.

The survey result indicated that about, 38.7 % of the MSEs were retaining experienced staff and 61.3% were not retaining experienced staff. Among the growing MSEs, 47.2 % were retaining experienced staff and 52.8 % were not retaining experienced staff. Among the growing MSEs, 17.9 % were retained and 82.1 % were not retaining experienced

staff. There was statistically significant association between independent variable retaining experienced staff and capital growth with $\chi^2 = 17.218$ and p = 0.000 at 5% level of significance.

Table 4.7 Staff related factor and capital growth

Variable	category	growth status in terms of capital						χ^2 and P
		non-growing		growing		Total		
		N	%	N	%	N	%	
Staff	No staff	37	55.2%	21	12.9%	58	25.2%	45.138
	Have staff	30	44.8%	142	87.1%	172	74.8%	
	Total	67	100%	163	100%	230	100%	0.000
staff qualification	Not qualified	51	76.1%	56	34.4%	107	46.5%	33.289
	qualified	16	23.9%	107	65.6%	123	53.5%	
	Total	67	100%	163	100%	230	100%	0.000
team work	No team work	46	68.7%	56	34.4%	102	44.3%	22.636
	Team work	21	31.3%	107	65.6%	128	55.7%	
	Total	67	100%	163	100%	230	100%	0.000
Staff training	No training	53	79.1%	91	55.8%	144	62.6%	10.989
	Training	14	20.9%	72	44.2%	86	37.4%	
	Total	67	100%	163	100%	230	100%	0.001
motivating staff	No motivation	54	80.6%	80	49.1%	134	58.3%	19.396
	Motivation	13	19.4%	83	50.9%	96	41.7%	
	Total	67	100%	163	100%	230	100%	0.000
retain experienced staff	Not retain	55	82.1%	86	52.8%	141	61.3%	17.218
	Retain	12	17.9%	77	47.2%	89	38.7%	
	Total	67	100%	163	100%	230	100%	0.000

Source: Own survey, 2017

4.1.7 Business Related Factor and Capital Growth

The survey result from Table 2 shows that 57.8 % of sample MSEs are group owned, 17.2 % are family owned and only 25.2 % of MSEs are individual owned. This imply that majority of MSEs in the study area were group owned. Among the growing MSEs, 69.3 % were group owned, 15.3% were family owned and 15.3% were individual owned. Among the non-growing 29.9% were group, 20.9 % were family and 49.3 % were

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individual owned. There was statistically significant association between independent variable enterprise type and capital growth with $\chi^2 = 35.320$ and p = 0.000 at 5% level of significance. This result is consistent with the finding of Dagmawit and yishak (2016).

 The result of this study indicated that 71.3% of MSEs were between 3-6 years of existence, 21.7% were 7-10 year of existence in the business, 6.1% were existed between 11-14 years and only 0.9 % of MSEs were existed more than 14 years. Among the growing MSEs, 65% were between the year of 3-6, 26.4% were between 7-10 year,8% were 11-14 years and 0.6% were more than 14 years. Among non-growing MSEs, 86.6% were 3-6 year, 10.4 % were 7-11 year, 1.5% were 11-14 years and 1.5% were more than 14 years. There was statistically significant association between independent variable year of existence and capital growth with $\chi^2 = 12.334$ and p = 0.006 at 5% level of significance. The overall result shows most of the growing MSEs were in the age of 3-6 and followed by 7-10 which indicates over 90% of them were less than 10 years of age. This shows that the younger firms more likely to grow than the older one. This result is in line with the study by kokobe (2013), who reported that the younger firm grows more than the older one and there is inverse relationship between firm age and capital growth.

Out of the total MSEs, about 48.7 % of MSEs operate in their home, 30.9% operates in rental house, 12.6 % in government constructed, and 7.8 % at NGO constructed. Among the growing MSEs, 53.4 % operates at home, 27 % operates in rental houses, 16 % in government constructed and the remaining 3.7% were NGO constructed. On the other hand, among the non-growing MSEs about 37.3 % operates at home, 40.3% operates in rental houses,4.5% operates in government constructed and the remaining 17.9 operates at NGO constructed working place. There was statistically significant association between independent variable working place and capital growth with $\chi^2 = 22.480$ and p = 0.000 at 5% level of significance.

Out of the total sample, about 63.9% of MSEs operate their business near to the downtown and 36.1% of them located far from the downtown or city centre. Among the growing MSEs, 74.2 % of MSEs are located near to the downtown and 25.8 % located far from the downtown. Out of the total non growing MSEs, 38.8 % MSEs located near to the city centre or downtown and 61.3% were far from downtown. There was statistically significant association between independent variable location and capital growth with χ^2

= 25.839 and p = 0.000 at 5% level of significance. This is consistent to the findings of Dagmawit and Yishak (2016); Eshetu and Mammo(2009); Gebreyesus (2009), they found that MSEs located at city centre exhibit higher growth compared to MSEs located out of town. The findings of Habtamu *et al.,*(2013) is contrary with this survey finding who found that MSEs operate in main road side have low probability of growth compared to those operate out of the town.

As Table 4.11 indicates out of the total sample 68.3 % of MSEs had plan for their business and 31.7% had no business plan. Most of the growing MSEs (79.1%) had business plan and only 20.1 % of growing MSEs had no business plan. About 41.8 % of non growing MSEs had business plan and the remaining 58.1 % had no business plan. There was statistically significant association between independent variable business plan and capital growth with χ^2 = 30.574 and p = 0.000 at 5% level of significance. This is consistent with the finding of Siropolis (1998) who found that Business that do not prepare a business plans have a greater chance of failure than business that do. But it is inconsistent with that of Dagmawit and yishak (2016).

Table 4.8a Business related factor and capital growth

Variable	Category	growth status interms of capital						χ^2 and P
		non-growing		growing		Total		
		N	N %	N	N %	N	N %	
Type of enterprise	Group	20	29.9%	113	69.3%	133	57.8%	35.320
	Individual	33	49.3%	25	15.3%	58	25.2%	
	Family	14	20.9%	25	15.3%	39	17.0%	0.000
	Total	67	100%	163	100%	230	100%	
business existence	3-6yr	58	86.6%	106	65.0%	164	71.3%	12.334
	7-10yr	7	10.4%	43	26.4%	50	21.7%	
	11-14yr	1	1.5%	13	8.0%	14	6.1%	0.006
	.>14yr	1	1.5%	1	0.6%	2	0.9%	
	Total	67	100%	163	100%	230	100%	
Owner of working place	Home	25	37.3%	87	53.4%	112	48.7%	22.480
	Rental	27	40.3%	44	27.0%	71	30.9%	
	Govt	3	4.5%	26	16.0%	29	12.6%	0.000
	NGO	12	17.9%	6	3.7%	18	7.8%	
	Total	67	100%	163	100%	230	100%	

Location	far downtown	41	61.2%	42	25.8%	83	36.1%	25.839
	near downtown	26	38.8%	121	74.2%	147	63.9%	
	Total	67	100%	163	100%	230	100%	0.000
Business plan	No plan	39	58.2%	34	20.9%	73	31.7%	30.574
	Have plan	28	41.8%	129	79.1%	157	68.3%	
	Total	67	100%	163	100%	230	100%	0.000

Source: own survey,2017

Out of 22 MSEs operate in service sector only 10 MSEs (45%) were growing and the rest 12 MSEs (55%) were non growing. Among 60 MSEs operate in manufacturing sector 81.6% were growing and 18.4 % were non growing. Out of 68 MSEs in construction sector 56 MSEs (82.3 %) were growing and 12 (17.7%)   MSEs were non-growing. About 21 (42%) MSEs in trade sector are growing, the rest 29 (58 %) were non growing. Among 30 MSEs operate in urban agriculture 27(90%) MSEs were growing type, the rest only 3 (10%) of MSEs were non growing. Out of the total growing MSEs, service sector accounts 6.1 %, manufacturing 30.1 %, construction 34.4 %, trade 12.9 % and urban agriculture 16.6 % (Table 4.9). There was statistically significant association between independent variable sector and capital growth with $\chi^2 = 40.119$ and p = 0.000 at 5% level of significance. As the result shows growth is influenced by the sector of the business operation. MSEs which operated in the sector construction and manufacturing and urban agriculture were more likely to grow than other sector. This result is in line with the study by kokobe (2013), who reported that businesses in the sectors of industry like manufacturing and construction more likely grow than other sector.

The startup capital(in Birr) category of the total MSEs shows that 0.9% were between the range of 100-5000, 19.1% were between 5001-10000, 22.2% were between 10001-50000, 30% are between 50001-100000 and 27% are greater than 100000. Among the growing MSEs 0.6% are between the range of 100-5000, 10.4% are between 5001-10000, 22.7% are between 10001-50000, 34.4% are between 50001-100000 and 31.9% are greater than 100000. Among the non-growing MSEs 1.5% are between the range of 100-5000, 40.3 % are between 5001-10000, 20.9% are between 10001-50000, 19.4 % are between 50001-100000 and 17.9% are greater than 100000. There was statistically significant association between independent variable startup capital and employment growth with $\chi^2 = 29.515$ and p = 0.001 at 5% level of significance. This is in line with the finding of Dagmwit and

Yishak (2016) who found that there is significant association between capital growth and startup capital and positive relation between them which shows when the startup capital increase the probability of capital growth also increases.

Initial employment size of the MSEs indicated that about 75.2% of the MSEs had started their operation with less than five employees whereas, 24.8 % of the MSEs started their operation with the employee number between 6to30. Among the growing MSEs, 72.4% had initial employment size of less than five and the rest 27.6% had 6 to 30 employees. Among the non-growing 82.1% of MSEs started their business with less than five employees and the remaining 17.9% were started their operation with employees between 6 to 30. There was no statistically significant association between independent variable startup capital and employment growth with $\chi^2 = 2.395$ and p = 0.122 at 5% level of significance. This is inconsistent with the findings of Dagmawit and Yishak (2016) which indicates significant association between initial employment and capital growth.

Table 4.8b Business related factor and capital growth

Variable	Category	growth status in terms of capital						χ^2 and P
		non-growing		growing		Total		
		N	N %	N	N %	N	N %	
sector	Service	12	17.9%	10	6.1%	22	9.6%	40.119
	manufacturing	11	16.4%	49	30.1%	60	26.1%	
	construction	12	17.9%	56	34.4%	68	29.6%	0.000
	Trade	29	43.3%	21	12.9%	50	21.7%	
	urban agriculture	3	4.5%	27	16.6%	30	13.0%	
	Total	67	100%	163	100%	230	100%	
startup capital	100-5000	1	1.5%	1	0.6%	2	0.9%	29.515
	5001-10000	27	40.3%	17	10.4%	44	19.1%	
	10001-50000	14	20.9%	37	22.7%	51	22.2%	0.000
	50001-100000	13	19.4%	56	34.4%	69	30.0%	
	>100000	12	17.9%	52	31.9%	64	27.8%	
	Total	67	100%	163	100%	230	100%	
initial employment size	<=5	55	82.1%	118	72.4%	173	75.2%	2.395
	6-30	12	17.9%	45	27.6%	57	24.8%	
	Total	67	100%	163	100%	230	100%	0.122

Source: Own survey, 2017

4.1.8 Institutional Factor and Capital Growth

Out of the total samples, 58.7 %MSEs had access to finance and 41.3% of MSEs had no access to finance. Among the growing MSEs, 73.6% had access to finance and 26.4 % had no access to finance. In relation to non-growing MSEs about 22.4% had access to finance and 77.6% had no access to finance. There was statistically significant association between independent variable access to finance and employment growth with $\chi^2 = 51.405$ and p = 0.000 at 5% level of significance. This result is consistent with the findings of kokobe (2013); Dagmawit and yishak (2016) who found that capital growth and access to finance had significant relationship and the MSEs who had access to finance grows than no access to finance. This is in line with the findings of other scholars like Cassar, 2004; Moreno and Casllas, 2007; Olawale and Garwe (2010), who found out that a firm with access to finance is more likely to grow more than a firm that has a lack of financial resources.

Out of the total samples, market linkage was created for 65.2 % MSEs. Among the total growing MSEs, 83.4 % of MSEs had access to market linkage and only 16.6 % of MSEs had no access to market linkage. Among non growing MSEs, 20.9 % of MSEs had access to market linkage and 79.1% had no access to market linkage. There was statistically significant association between independent variable access to market linkage and employment growth with $\chi^2 = 81.870$ and p = 0.000 at 5% level of significance. This result is consistent with the findings of Dagmawit and yishak (2016) who found that capital growth and access to market linkage had significant relationship and the MSEs who had access to market linkage grows than no access to market linkage.

About 82.6% of MSEs have access to sufficient power supply only 17.4 % had no access to sufficient power supply. Among the growing MSEs, 87.1% had access to power supply and the remaining MSEs (12.9%) have no access to sufficient power supply. Also among the non-growing MSEs 71.6% had access to power supply and the remaining 28.4% of MSEs had no access to sufficient power supply. There was statistically significant association between independent variable access to electric power and employment growth with $\chi^2 = 7.915$ and p = 0.005 at 5% level of significance. This is inconsistent with the findings of Dagmawit and Yishak (2016).

Almost all of MSEs (83%) had access to transport and only 17 % of MSEs responded that they have no access to transport. Among the growing MSEs, almost all of MSEs (89.6%) had access to transport and only 10.4 % of MSEs responded that they have no access to transport. Among the non-growing MSEs, 67.2% had access to transport and 32.8% had no access to transport. There was statistically significant association between independent variable access to transportation and employment growth with χ^2 = 16.929 and p = 0.000 at 5% level of significance. This is inconsistent with the findings of Dagmawit and Yishak (2016).

About 54.3% of MSEs involved in social network and 45.7% of MSEs responded that they had no social network. Among the growing 68.1% of MSEs are involved in social network and only 31.9 % of MSEs are not involved in social network. Among the non-growing MSEs, 20.9 % involved in social network and most of the MSEs (79.1%) are not involved in social network. There was statistically significant association between independent variable social network and employment growth with χ^2 = 42.641 and p = 0.000 at 5% level of significance. This is inconsistent with the findings of Dagmawit and Yishak (2016).

Table 4.9 Institutional factor and capital growth

| Variable | category | growth status in terms of capital | | | | | | χ^2 and P |
| | | non-growing | | growing | | Total | | |
		N	N %	N	N %	N	N %	
Access to	No access	52	77.6%	43	26.4%	95	41.3%	51.405
Finance	Have access	15	22.4%	120	73.6%	135	58.7%	
	Total	67	100%	163	100%	230	100%	0.000
Access to	No access	53	79.1%	27	16.6%	80	34.8%	81.870
market	Have access	14	20.9%	136	83.4%	150	65.2%	
linkage	Total	67	100%	163	100%	230	100%	0.000
access to	No access	19	28.4%	21	12.9%	40	17.4%	7.915
electric	Have access	48	71.6%	142	87.1%	190	82.6%	
power	Total	67	100%	163	100%	230	100%	0.005
access to	No access	22	32.8%	17	10.4%	39	17.0%	16.929
transportatio	Have access	45	67.2%	146	89.6%	191	83.0%	
n	Total	67	100%	163	100%	230	100%	0.000

social	No involved	53	79.1%	52	31.9%	105	45.7%	42.641
network	involved	14	20.9%	111	68.1%	125	54.3%	
	Total	67	100%	163	100%	230	100%	0.000

Source: Own survey, 2017

4.1.9 Business Development Service (BDS) and Capital Growth

Out of the total MSEs, about 63.5% of MSEs had been supported to get market access and the remaining 36.5% were not been supported. Among the growing MSEs, 75.5% of them were supported to get market access and the remaining only 24.5 % of MSEs had not get support to get market access. Among the non-growing MSEs, 34.3% of them are supported to get market access and the remaining 65.7% of them are not supported to get market access. There was statistically significant association between independent variable support to market access and employment growth with $\chi^2 = 34.651$ and p = 0.000 at 5% level of significance.

Out of the total MSEs, about 23.5% of MSEs had been supported to get IT related service and the remaining 76.5% were not been supported. Among the growing MSEs, 23.3% of them are supported to get IT related service and the remaining most of them which were 76.7 % of MSEs had not get support of IT related service. In the same way, among the non-growing MSEs, 23.9% of them are supported to get IT related service and the remaining most of them which are 76.1 % of MSEs had not get support of IT related service. There was no statistically significant association between independent variable support of IT related service and employment growth with $\chi^2 = 0.009$ and p = 0.926 at 5% level of significance.

Out of the total MSEs, about 65.7% of MSEs had been supported to get advisory and consulting service and the remaining 34.3% were not been supported. Among the growing MSEs, 81% of them are supported to get advisory and consulting service and the remaining 19% of MSEs had not get support of advisory and consulting service. Among the non-growing MSEs, 28.4% of them are supported to get advisory and consulting service and the remaining which are 71.6% of MSEs had not get support of advisory and consulting service. There was statistically significant association between independent variable support of advisory and consulting and employment growth with $\chi^2 = 58.310$ and p = 0.000 at 5% level of significance.

Table 4.10 BDS related factor and capital growth

Variable	category	growth status in terms of capital						χ^2 and P
		non-growing		growing		Total		
		N	N %	N	N %	N		
Support of market	No	44	65.7%	40	24.5%	84	36.5%	34.651
	yes	23	34.3%	123	75.5%	146	63.5%	
	Total	67	100%	163	100%	230	100%	0.000
support of IT	No	51	76.1%	125	76.7%	176	76.5%	.009
	yes	16	23.9%	38	23.3%	54	23.5%	
	Total	67	100%	163	100%	230	100%	0.926
Support of advisory or consulting	No	48	71.6%	31	19.0%	79	34.3%	58.31
	yes	19	28.4%	132	81.0%	151	65.7%	
	Total	67	100.0%	163	100.0%	230	100.0%	.000

Source: Own survey, 2017

4.2 Econometric Model Result
Result of Binary Logistic Regression of the determinants of MSEs growth

Tables show the effect of explanatory variables on dependent variable. Before applying final model, bivariate analysis was applied to identify the candidate variables for the final model. Variables with p-value less than 0.05 were taken to the final model to see their independent effect on the dependent variable. The significance of individual parameter estimates was tested using Wald test. The result is interpreted in terms of odds ratio. Odds ratios greater than 1 indicate that the event is more likely to happen in a given category than in the reference category, odds ratios of 1 indicate the event is exactly as likely to happen in the two categories while odds ratios less than 1 indicate that the event is less likely to happen in the given category than in the reference category.

4.2.1 Interpretation of Econometric Model Result of Determinants of MSEs Employment Growth

The **Omnibus Tests of Model Coefficients** gives an overall indication of how well the model performs, over and above the results obtained for Block 0, with none of the predictors entered into the model. This is referred to as a 'goodness of fit' test. For this set

of results need to be a highly significant value (the **Sig.** value should be less than .05). In this case the value is .000 (which really means p<.0005). Therefore, the model is good fit.

The results shown in the table headed **Hosmer and Lemeshow Test** also supports our model as being worthwhile. This test, which SPSS states is the most reliable test of model fit available in SPSS, is interpreted very differently from the omnibus test. For the Hosmer-Lemeshow goodness of fit test poor fit is indicated by a significance value less than 0.05, so actually a value should be greater than 0.05. For this study the chi-square value for the Hosmer-Lemeshow Test of overall model is 12.336 with significance level of 0.137, human capital is 7.693 with a significance level of 0.464, business characteristics is 10.172 with significance value of 0.407, institutional factor is .824 with significance value of 0.975, BDS is .398 with significance value of 995 . These values are larger than .05, therefore indicating support for the model.

The table headed **Model Summary** gives us another piece of information about the usefulness of the model. The Cox and Snell R Square and the Nagelkerke R Square values provide an indication of the amount of variation in the dependent variable explained by the model (from a minimum value of 0 to a maximum of approximately 1). These are described as pseudo R square statistics, rather than the true R square values. In this study for the overall model the two values are 64.8 and 86.8 percent, suggesting that between 64.8 percent and 86.8 percent of the variability is explained by this set of variables regarding human capital 62.4and 83.5 percent, 30.4 and 40.7 percent for business characteristics, 41.8 and 56 percent for institutional factor, 26 and 34.8 percent for BDS.

4.2.1.1   Human Capital Factors

As shown in table   Marital Status, previous business experience, motivation, staff quality, team work, staff training and staff motivation were found to be significant variables that determine growth of MSEs in terms of employment at 5% level of significance.

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
	Step	224.694	13	.000
Step 1	Block	224.694	13	.000
	Model	224.694	13	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	91.208[a]	.624	.835

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	7.693	8	.464

Table 4.11 Regression output for Human capital and employment growth

			Variables in the Equation					
Variables	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Marstat			6.375		0.012			
Single(Rf)								
Married	0.693		6.375	1	0.012	2.00	1.168	3.425
Prevexp			36.735	1	0.000			
Have no exp (Rf)								
Have exp	4.566	.753	36.735	1	0.000	96.115	21.958	420.708
Motivation			11.251	1	0.001			
Lack of alternative(Rf)								
By choice	2.143	.639	11.251	1	0.001	8.525	2.437	29.823
Training			4.768	1	0.029			
Not trained(Rf)								
Trained	1.243	.569	4.768	1	0.029	3.465	1.136	10.570
Stfqual			28.401	1	0.000			
No stf qual(Rf)								
Have Stf qual	3.622	.680	28.401	1	0.000	37.43	9.877	141.843
Teamwork			15.613	1	0.000			
No teamwork(Rf)								
Teamwork	-2.619	.663	15.613	1	.000	.073	0.020	0.267
Stftrain			17.028	1	.000			
No stftrain(Rf)								
Stf training	-3.152	.764	17.028	1	.000	.043	.010	.191
Stfmot			16.374	1	.000			
No stfmot(Rf)								
Stfmot	3.189	.788	16.374	1	.000	24.256	5.177	113.650
Constant	-4.227	.772	29.948	1	.000	.015		

Rf =Reference category, β =Regression coefficient, sig. =Significance, Exp(β)=Odd ratio,* =Significant at 5% level of significance, S.E. =Standard error

As output of the binary logistic model indicates 8 explanatory variables of human capital are significantly affecting the probability of MSEs employment growth. Whereas the rest 5 of the 13 explanatory variables were found to have no significant influence on MSEs employment growth. The effect of the significant explanatory variables on MSEs growth in study area is discussed below.

Marital Status (marstat)

The Binary logistic regression result in table shows that marital status significantly affects the growth of MSEs. Married MSEs owners were 2.0 times more likely to be growing than single, widowed and divorced. This implies that married MSEs owners were most growing than that of single. This result is supported by studies done by Solomon et al., (2016) indicated that MSEs managed by married individuals grow relatively faster than those managed by their counterparts. Which indicated that MSEs owner who were single, divorced, or widowed were less likely to be growing. The reason might be that those MSEs who are single are less responsible than that of married and so that they individually make decision for work and may be risky.

Previous business experience of MSE owners (prevexp): was found positively and significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs owners who have previous business experience were 96.115 times more likely to be growing than those MSEs owners who have no previous business experience. This implies that MSEs whose owners have previous business experience have the probability to grow than that of no experience. This result is supported by result of the study done previously by Kokobe, (2013); Mulu, (2007) reported that a firm with more years of owners work experience typically have faster-growing than their counterparty. The reason might be that MSEs owners who had experience may can manage the business easily and ability to handle different challenges and participate actively in the market than owners who had no experience.

Motivation of MSE owners (motivation): was found positively and significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs Owners who joined MSE by choice is 8.525 times more likely to be growing than those MSEs owners who have joined by lack of alternative. This implies that MSEs

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whose owners motivated to join the business by their own interest have the probability to grow than that of the owners joined because of lack of alternative. The reason might be that MSEs owners who had joined by their interest may have strong self confidence and strong commitment to achieve success. This result is supported by result of the study done previously by Dagmawit and yishak (2016) reported that owners start business by choice has better opportunity to grow as compared with owners start business because of lack of alternative. It is also consistent with the study by block and sanders (2009) who reported that entrepreneur who have opportunity driven motives have significant impact on growth of MSEs.

Staff with relevant qualification (stfqual): was found positively and significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who had staff with relevant qualification with their work are 37.219 times more likely to be growing than those MSEs who had no relevant staff qualification. This implies that MSEs who had qualified staff have the probability to grow in terms of employment than that of the MSEs who are not had qualified staff. This result is supported by result of the study done previously by Solomon et al., (2016) who reported that the number of skilled production workers has a positive effect on the growth of MSEs.

Team work of MSEs (teamwrk): was found negatively and significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who had team work between staff with their work are 0.073 times less likely to be growing than those MSEs who had no team work. This implies that MSEs who had no team work in its staff had the probability to grow in terms of employment than that of the MSEs who had team work in between staff. The reason might be additional jobs that need new workers covered by existing workers by forming teams and taking additional responsibility.

Continuous Staff training of MSEs (stftrain): was found negatively and significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who gave continuous staff training for its employees are 0.043 times less likely to be growing than those MSEs who did not given continuous staff training for their employees. This implies that MSEs who gave training for its staff have the

probability to grow in terms of employment than that of the MSEs who are not given training for their staff. The reason might be MSEs train their staff in order to cover additional work, activities and responsibilities than recruit new employee.

Motivating staff with good pay (stfmot): was found positively and significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who motivate their staff with good pay are 24.256 times more likely to be growing than those MSEs who did not motivate their staff with good pay. This implies that MSEs who motivate their staff have the probability to grow in terms of employment than those of the MSEs who are not motivate their staff.

4.2.1.2   Business Related Factors

As shown in table   Business existence, location, business plan and initial employment were found to be significant variables that determine growth of MSEs in terms of employment at 5% level of significance.

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
	Step	83.267	8	.000
Step 1	Block	83.267	8	.000
	Model	83.267	8	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	232.636[a]	.304	.407

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	10.172	8	.253

Table 4.12 Regression output for Business and employment growth

Variables in the Equation								
Variables	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Busexist			4.530	3	.210			
3-6 years(Rf)								
7-10 years	.884	.420	4.421	1	.036	2.420	1.062	5.514

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	β	S.E.	Wald	df	sig.	Exp(β)		
11-14 years	.476	.661	.518	1	.472	1.609	.441	5.873
> 14 years	23.291	24682.	.000	1	.999	1303960	.000	.
Locaton			38.356	1	.000			
Far downtown(Rf)								
Near downtown	2.520	.407	38.356	1	.000	12.427	5.598	27.587
Bplan			10.685	1	.001			
No Bplan (Rf)								
Have Bplan	1.289	.394	10.685	1	.001	3.630	1.676	7.863
Initial employment			2.254	1	.133			
<5(Rf)								
6 to 30	-.562	.374	2.254	1	.133	.570	.274	1.187
Constant	-3.025	.460	43.336	1	.000	.049		

Rf =Reference category, β =Regression coefficient, sig. =Significance, Exp(β)=Odd ratio, * =Significant at 5% level of significance, S.E. =Standard error

Business existence year (busexist): was found positively and significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who exist in business operation from 7-10 years, 11-14 years are 2.42 and 1.676 times more likely to be growing than those MSEs who exist in business operation from 3-6 years. This implies that as the MSEs year of existence in business operation increases, the probability to grow in terms of employment also increase. So that, the year of business operation and employment growth are directly related. This result is supported by result of the study done previously by Hailay (2014) who found that the number of years over which the MSEs exist in operation has a significant effect on their growth. It is contrary to the study by Kokobe (2013) who reported that age of firm is not significant determinants of employment growth.

Location of business (location): was found positively and significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who are located in near to downtown are 12.427 times more likely to be growing than those MSEs who located far from downtown. This implies that MSEs who are operating in the area of city centre had the probability to grow in terms of employment than those of the MSEs who are far located. The reason might be the MSEs who are located near to down town had more business opportunities than far located. This result is supported by result of the study done previously by Hasnu and Amjam, 2007; Gebreyesus, (2007) who reported that MSEs located at main road side exhibit higher growth compared to MSEs

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located out of town. And also Woldeyohanes (2014) reported that location of enterprise matter a lot for the growth of MSEs. But, it is inconsistent with the study by Habtamu *et al.,*(2013) who found the probability of being growing for MSEs that operate out of town is higher than those which operates in bussy streets.

Business Plan (Bplan): was found positively and significantly influences the probability of MSEs employment growth at less than 5% significance level**.** MSEs who had business plan are 3.63 times more likely to be growing than those MSEs who did not have business plan. This implies that MSEs who are operating each activities based on business plan have the probability to grow in terms of employment than those of the MSEs who are working without business plan. The reason might be the MSEs who are working based on business plan can ability to exploit more opportunities and handle challenges strategically than those who do not had business plan. This result is supported by result of the study done previously by Amentie *et al.,* (2015) who reported positive and significant influence of preparation of business plan on employment growth.

Initial employment size (Initialemp): was found negatively and significantly influences the probability of MSEs employment growth at less than 5% significance level**.** MSEs who had initial employees 6-30 are 0.57 times less likely to be growing than those MSEs who had <5 employees. This implies that MSEs who start business with more employees have the probability to less growing in terms of employment than those of the MSEs who start their business with less number of employees. This result is consistent with the study by Amentie *et al.,* (2015) and Mulu (2007) who reported that initial employment size and employment growth of firms are negatively related. It is inconsistent with the study by Hailay *et al.,* (2014) who reported that there is no clear linkage between initial employment size and growth.

4.2.1.3   Institutional Factor

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	124.692	5	.000
	Block	124.692	5	.000
	Model	124.692	5	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	191.210[a]	.418	.560

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	.824	5	.975

Table 4.13 Regression output for institutional factor and employee growth

Variables in the Equation								
Variables	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
AC_FIN			9.561	1	.002			
No AC_FIN(Rf)								
AC_FIN	1.240	.401	9.561	1	.002	3.455	1.575	7.582
AC_MKTL			6.365	1	.012			
No AC_MKTL(Rf)								
AC_MKTL	1.163	.461	6.365	1	.012	3.200	1.296	7.900
AC_EPWR			5.231	1	.022			
No AC_EPWR(Rf)								
AC_EPWR	1.074	.470	5.231	1	.022	2.927	1.166	7.349
AC_TRP(1)			6.819	1	.009			
No AC_TRP(Rf)								
AC_TRP(1)	1.826	.699	6.819	1	.009	6.212	1.577	24.468
SOC_NW			26.791	1	.000			
Not involved(Rf)								
Involved	2.097	.405	26.791	1	.000	8.142	3.680	18.013
Constant	-5.616	.905	38.502	1	.000	.004		

Rf =Reference category, β =Regression coefficient, sig. =Significance, Exp(β)=Odd ratio,* =Significant at 5% level of significance, S.E. =Standard error

Access to finance (AC_FIN): was found positively and significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who had access to finance were 3.455 times more likely to be growing than those MSEs who have no access to finance. This implies that MSEs who got access to finance had the probability to grow than that of not got access to finance. The reason might be the MSEs who had access to finance can able to expand their business and this may create additional job opportunities. This result is consistent with previous study by (Dagmawit

and Yishak, 2016; Wolde and Geta,2015; Kokobe,2013; Hailay,2014) found that access to finance is positively and significantly influence the employment growth of MSEs.

Access to market linkage (AC_MKTL): was found positively and significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who had access to market linkage were 3.2 times more likely to be growing than those MSEs who have no access to market linkage. This implies that MSEs who got access to market linkage have the probability to grow than that of not got access to market linkage. This result is consistent with previous study by (Dagmawit and Yishak ,2016; Hailay,2014; Wolde and Geta,2015) found that access to finance had significant influence on employment growth of MSEs.

Access to electric power (AC_EPWR): was found positively and significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who had access to electric power were 2.927 times more likely to be growing than those MSEs who have no access to electric power. This implies that MSEs who got access to electric power have the probability to grow than that of not got access to electric power. This result is consistent with the study by Solomon *et al.*, (2016) who reported sufficient power has positive influence on the growth of MSEs. But, it is inconsistent with the study by Dagmawit and Yishak (2016) found that electric power had no significant influence on employment growth of MSEs.

Access to transportation (AC_TRP): was found positively and significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who had access to transport were 6.212 times more likely to be growing than those MSEs who have no access to electric power. This implies that MSEs who got access to transportation had the probability to grow than that of not got access to transportation. This result is inconsistent with the study by Dagmawit and Yishak (2016) found that electric power had no significant influence on employment growth of MSEs.

Social network (SOC_NW): was found positively significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who involved in social networks are 8.142 times more likely to be growing than those MSEs who did not involved in social networks. This implies that MSEs who involved in different social relations had the probability to grow in terms of employment than those of the MSEs who

are not involved. This result is supported by result of the study done previously by (Wolde and Geta, 2015; Amentie *et al.,* 2015) who reported Social networks positively and significantly influence employment growth of MSEs.

4.2.1.4 Business Development Service

As shown in table support of access to market and support of advisory/consulting were found to be significant variables that determine growth of MSEs in terms of employment at 5% level of significance.

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
	Step	69.236	3	.000
Step 1	Block	69.236	3	.000
	Model	69.236	3	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	246.666[a]	.260	.348

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	.398	5	.995

Table 4.14 Regression output for BDS and employment growth

Variables in the Equation								
Variables	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
SUPAC_MKT			26.082	1	.000			
SUPAC_MKT(Rf)								
SUPAC_MKT	1.841	.361	26.082	1	.000	6.304	3.110	12.780
SUP_ADVISE			17.174	1	.000			
SUP_ADV(Rf)								
SUP_ADV	1.495	.361	17.174	1	.000	4.459	2.199	9.044
Constant	-2.546	.400	40.616	1	.000	.078		

Rf =Reference category, β =Regression coefficient, sig. =Significance, Exp(β)=Odd ratio, * =Significant at 5% level of significance, S.E. =Standard error

Support of access to Market (SUPAC_MKT): was found positively and significantly influences the probability of MSEs employment growth at less than 5% significance

level**.** MSEs who got support of access to market were 6.304 times more likely to be growing than those MSEs who have no support of access to market. This implies that MSEs who got support of to get access to market have the probability to grow than that those not supported. This is consistent with study by Admasu (2012) who reported support of market access positively influence MSEs growth.

Support of advice / consulting (SUP_ADV): was found positively and significantly influences the probability of MSEs employment growth at less than 5% significance level**.** MSEs who got support of advising service were 4.459 times more likely to be growing than those MSEs who have no support of advising service. This implies that MSEs who got support of advisory service have the probability to grow than that those not supported by advising service. This is consistent with study by Admasu (2012) who reported advice and consulting are crucial for the business growth.

4.2.2 Interpretation of Econometric Model Result of Determinants of MSEs Capital Growth

The **Omnibus Tests of Model Coefficients** gives an overall indication of how well the model performs, over and above the results obtained for Block 0, with none of the predictors entered into the model. This is referred to as a 'goodness of fit' test. For this set of results need to be a highly significant value (the **Sig.** value should be less than .05). In this case the value is .000 (which really means p<.0005). Therefore, the model is good fit.

The results shown in the table headed **Hosmer and Lemeshow Test** also supports our model as being worthwhile. This test, which SPSS states is the most reliable test of model fit available in SPSS, is interpreted very differently from the omnibus test. For the Hosmer-Lemeshow goodness of fit test poor fit is indicated by a significance value less than .05, so actually a value should be greater than 0.05. For this study the chi-square value for the Hosmer-Lemeshow Test of overall model is 2.387 with a significance level of 0.967, human capital is 8.479 with a significance level of 0.388, business characteristics is 6.818 with significance value of 0.556, institutional factor is 1.957 with significance value of 0.924, BDS is 1.050 with significance value of 0.902. These values are larger than .05, therefore indicating support for the model.

The table headed **Model Summary** gives us another piece of information about the usefulness of the model. The Cox and Snell R Square and the Nagelkerke R Square values provide an indication of the amount of variation in the dependent variable

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explained by the model (from a minimum value of 0 to a maximum of approximately 1). These are described as pseudo R square statistics, rather than the true R square values. In this study the two values are percent of the variability is explained by this set of variables, **overall model are suggesting that between 60.8 and 86.7 percent variability is explained by this set of variables**, regarding human capital 52.6 and 75.1 percent, for business characteristics 25.5 and 36.4 percent, for institutional factor 39.9 and 56.9 percent, 30.4 and 43.4 percent for BDS.

4.2.2.1   Human Capital

As shown in table   Age, marital status, education level, previous business experience, training and staff were found to be significant variables that determine growth of MSEs in terms of capital at 5% level of significance.

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	171.715	13	.000
	Block	171.715	13	.000
	Model	171.715	13	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	105.810^a	.526	.751

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	8.479	8	.388

Table 4.15 Regression output for Human capital and capital growth

Variables in the Equation								
	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Age			4.989	2	.083			
18-25(Rf)								
26-34	-1.722	.780	4.871	1	.027	.179	.039	.825
>34	-1.167	1.116	1.093	1	.296	.311	.035	2.775
Marstat			.888	3	.828			
Single(Rf)								
Married	.595	.631	.888	1	.346	1.813	.526	6.252

	β	S.E.	Wald	df	sig.	Exp(β)		
Educstat			5.580	2	.061			
primary(Rf)								
Secondary	-1.347	.570	5.576	1	.018	.260	.085	.795
Diploma >	-.994	.835	1.417	1	.234	.370	.072	1.901
Prevexp			30.114	1	.000			
Have no exp(Rf)								
Have exp	4.387	.800	30.114	1	.000	80.427	16.783	385.429
Training			12.179	1	.000			
Not trained(Rf)								
Trained	2.255	.646	12.179	1	.000	9.538	2.688	33.848
Staff			4.595	1	.032			
No staff(1)								
Have staff	1.208	.564	4.595	1	.032	3.347	1.109	10.099
Constant	-.443	.525	.712	1	.399	.642		

Rf =Reference category, β =Regression coefficient, sig. =Significance, Exp(β)=Odd ratio, S.E. =Standard error

Age

The Binary logistic regression result in table shows age was found negatively and significantly influences the probability of MSEs capital growth at less than 5% significance level. The owners of MSEs whose age was between 26 and 34 years were 0.179 times less likely to be growing than those MSEs whose age was between 18 and 25 years. And those MSEs whose age was older than 34 years were 0.311 times less likely to be growing than those MSEs whose age was between 18 and 25 years. This implies that MSEs owners age between 18 and 25 years were more likely to be growing than older one. This result is supported by a study previously done by Hailay *et al.,* (2014) indicated that younger age group is more likely growing than older age group and age of the owner/operator has an exact inverse relation with the growth of MSEs. And woldie *et al.,* (2008) also reported that the probability of growth of firms decreases as age of owners increase.

Marital Status (marstat): was found positively and significantly affects the capital growth of MSEs. Married MSEs owners were 1.813 times more likely to be growing than single, widowed and divorced. This implies that married MSEs owners were most growing than that of single. This result is supported by studies done by Solomon et al., (2016) indicated that MSEs managed by married individuals grow relatively faster than

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those managed by their counterparts. Which indicated that MSEs owner who were single, divorced, or widowed were less likely to be growing.

Education status (educstat): was found negatively and significantly affects the capital growth of MSEs. MSEs owners who are in secondary level of education and diploma and above were 0.260 and 0.370 times less likely to be growing respectively than owners who had in primary level of education. This implies that education status of MSEs owners and capital growth of MSEs are inversely related. This result is inconsistent with study done by (Dagmawit and Yishak ,2016; Solomon *et al.,*2016) found that MSEs capital growth and education level had positive influence.

Previous business experience of MSE owners (prevexp): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs owners who have previous business experience were 80.427 times more likely to be growing than those MSEs owners who have no previous business experience. This implies that MSEs whose owners with previous business experience have the probability to grow than that of no experience. This result is supported by result of the study done previously by Kokobe, (2013) reported that a firm with prior business experience to be relevant for the growth of MSEs. Brown *et al.,* (2004) also reported previous business experience will avoid newness liability of the firms.

Training of MSE owners (training): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs owners who get entrepreneurship training were 9.538 times more likely to be growing than those MSEs owners who did not trained entrepreneurial training. This implies that MSEs whose owners who got entrepreneurial training have the probability to grow than that of not got training. This result is inconsistent with previous study by Dagmawit and Yishak (2016) found that there is no significant influence of entrepreneurial training on capital growth of MSEs.

Staff of MSEs (staff): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs who had staff were 3. 347 times more likely to be growing than those MSEs who do not have staff. This implies that staff influences the MSEs capital growth. This result is supported by result of the study done previously by Solomon *et al.,* (2016) who reported that working with the additional

workers has a positive effect on the capital growth of MSEs rather than working as individual.

4.2.2.2   Business Related Factors

As shown in table   location of enterprise, Business plan and startup capital were found to be significant variables that determine growth of MSEs in terms of capital at 5% level of significance.

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	67.713	8	.000
	Block	67.713	8	.000
	Model	67.713	8	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	209.812[a]	.255	.364

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	6.818	8	.556

Table 4.16 Regression output for Business factor and capital growth

Variables in the Equation

Variables	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Locaton			7.116	1	.008			
Far downtown(Rf)								
Near downtown	.958	.359	7.116	1	.008	2.607	1.289	5.273
Bplan			18.980	1	.000			
Have No Bplan(Rf)								
Bplan	1.504	.345	18.980	1	.000	4.499	2.287	8.851
Startcap			9.696	4	.046			
100-5000(Rf)								
5001-10000	-.322	1.471	.048	1	.827	.724	.041	12.935
10001-50000	.889	1.468	.367	1	.545	2.432	.137	43.165
50001-100000	1.082	1.466	.544	1	.461	2.949	.167	52.160
>100000	.832	1.471	.320	1	.572	2.299	.129	41.099
Constant	-1.231	1.449	.722	1	.395	.292		

Rf =Reference category, β =Regression coefficient, sig. =Significance, Exp(β)=Odd ratio,***** =Significant at 5% level of significance, S.E. =Standard error

Location of business (location): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level**.** MSEs who are located in near to downtown are 2.607 times more likely to be growing than those MSEs who were located far. This implies that MSEs who are operating in the area of city centre have the probability to grow in terms of employment than those of the MSEs who are far located. The reason might be the MSEs who are located near to down town had more good business opportunities than far located. This result is supported by result of the study done previously by Dagmawit and Yishak (2016) who reported MSEs that are operating at main roadside (busy street) have higher probability of growth as compared to those MSEs that are operating at outside the bussy street

Business Plan (Bplan): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level**.** MSEs who had business plan are 4.499 times more likely to be growing than those MSEs who did not have business plan. This implies that MSEs who are operating each activities based on business plan have the probability to grow in terms of capital than those of the MSEs who are working without business plan. The reason might be the MSEs who are working based on business plan can ability to exploit more opportunities and go through strategically than those who do not had business plan. This result is supported by result of the study done previously by Amentie *et al.,* (2015) who reported positive and significant influence of preparation of business plan on capital growth.

Start-up capital (startcap): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level**.** MSEs who start business by startup capital from 5000-10000 are 0.724 times less likely grow than 100-5000. Startup capital of 10000-50000, 50,000-100,000 and greater than 100,000 are 2.432, 2.949 and 2.299 times more likely to be growing than those MSEs who start business by from capital 100-5000 birr respectively. This implies that MSEs who start business with large capital amount have the probability to more growing in terms of capital than those of the MSEs who start their business with less amount of capital. This

result is supported by result of the study done previously by Habtamu *et al.,* (2013) who reported that startup capital matters a lot for the growth of MSEs.

4.2.2.3   Institutional Factor

As shown in table   Access to finance, Access to market linkage, Access to electric power and social network were found to be significant variables that determine growth of MSEs in terms of capital at 5% level of significance.

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	116.921	5	.000
	Block	116.921	5	.000
	Model	116.921	5	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	160.604[a]	.399	.569

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	1.957	6	.924

Table 4.17 Regression output for institutional factor and capital growth

Variables in the Equation

Variables	B	S.E.	Wald	Df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
AC_FIN			9.543	1	.002			
No AC_FIN(Rf)								
AC_FIN	1.335	.432	9.543	1	.002	3.802	1.629	8.870
AC_MKTL			22.346	1	.000			
No AC_MKTL(Rf)								
AC_MKTL	2.031	.430	22.346	1	.000	7.620	3.283	17.685
AC_EPWR			10.691	1	.001			
No AC_EPWR(Rf)								
AC_EPWR	1.783	.545	10.691	1	.001	5.945	2.042	17.307
SOC_NW			7.283	1	.007			
Not involved(Rf)								
Involved	1.341	.497	7.283	1	.007	3.824	1.444	10.127
Constant	-3.550	.724	24.034	1	.000	.029		

Rf =Reference category, β =Regression coefficient, sig. =Significance, Exp(β)=Odd ratio,* =Significant at 5% level of significance, S.E. =Standard error

Access to finance (AC_FIN): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs who had access to finance were 3.802 times more likely to be growing than those MSEs who have no access to finance. This implies that MSEs who got access to finance have the probability to grow than that of not got access to finance. The reason might be the MSEs who had access to finance can able to expand their business. This result is supported by result of the study done previously by kokobe (2013) reported that a firm with access to external finance to be relevant for the growth of MSEs. But, previous study by Dagmawit andYishak (2016) found that there is no significant influence of access to finance on capital growth of MSEs.

Access to market linkage (AC_MKTL): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs who had access to market linkage were 7.620 times more likely to be growing than those MSEs who have no access to market linkage. This implies that MSEs who got access to market linkage have the probability to grow than that of not got access to market. The reason might be market linkage helps to get raw material and helps to sell their product or service easily and also reduce cost that incurred to search for market. This result is supported by result of the study done previously by Kokobe (2013) reported that a firm with access to market linkage to be relevant for the growth of MSEs. But, previous study by Dagmawit andYishak (2016) found that there is no significant influence of access to market linkage capital growth of MSEs.

Access to electric power (AC_EPWR): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs who had access to electric power were 5.945 times more likely to be growing than those MSEs who have no access to electric power. This implies that MSEs who got access to electric power have the probability to grow than that of not got access to electric power. The reason might be firms who got sufficient amount of power can do their works as their plan and because electric power is necessary for any business. This result is consistent

with the study by Solomon *et al.,* (2016). But, previous study by Dagmawit andYishak (2016) found that there is no significant difference between entrepreneurial training and capital growth of MSEs.

Social network (SOC_NW): was found positively significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs who are involved in social networks are 3.824 times more likely to be growing than those MSEs who did not involved in social networks. This implies that MSEs who involved in different social relations have the probability to grow in terms of capital than those of the MSEs who are not involved. This result is supported by result of the study done previously by (Geta and wolde, 2015; Amentie *et al.,* 2015; Garoma, 2012) who reported Social networks positively and significantly influence capital growth of MSEs in which it can help the owners to identify business opportunities and also conquer a number of difficulty related to transaction costs, contract enforcement, and regulation.

4.2.2.4 Business Development Service

As shown in table   support of access to market, support of IT service and support of advisory/consulting were found to be significant variables that determine growth of MSEs in terms of capital at 5% level of significance.

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
	Step	83.335	3	.000
Step 1	Block	83.335	3	.000
	Model	83.335	3	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	194.190[a]	.304	.434

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	1.050	4	.902

Table 4.18 Regression output for BDS and capital growth

Variables	B	S.E.	Wald	Df	Sig.	Exp(B)	95% C.I.for EXP(B)	
Variables in the Equation							Lower	Upper
SUPAC_MKT			20.629	1	.000			
No SUPAC_MKT(Rf)								
SUPAC_MKT	2.026	.446	20.629	1	.000	7.581	3.163	18.168
SUPAC_IT								
No SUPAC_IT(Rf)			10.576	1	.001			
SUPAC_IT	-1.659	.510	10.576	1	.001	.190	.070	.517
Advise			35.690	1	.000			
SUP_ADV(Rf)								
SUP_ADV	2.233	.374	35.690	1	.000	9.330	4.484	19.412
Constant	-1.045	.299	12.258	1	.000	.352		

Rf =Reference category, β =Regression coefficient, sig. =Significance, Exp(β)=Odd ratio, S.E. =Standard error

Support of access to Market (SUPAC_MKT): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs who got support of access to market were 7.581 times more likely to be growing than those MSEs who have no support of access to market. This implies that MSEs who got support of to get access to market have the probability to grow than that those not supported. This is consistent with study by Admasu (2012) who reported support of market access positively influence MSEs growth.

Support of IT service (SUP_IT): was found negatively and significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs who had support of access to IT service were 0.19 times less likely to be growing than those MSEs who have no support of access to IT service. This implies that MSEs who do not have support of IT service have the probability to grow than that those supported by IT service. This may related to the usage habits of IT by the society is low.

Support of advice/ consulting (SUP_ADV): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs who got support of advising service were 9.33 times more likely to be growing

than those MSEs who have no support of advising service. This implies that MSEs who got support of advisory service have the probability to grow than that those not supported by advising service. This is consistent with study by Admasu (2012) who reported advice and consulting are crucial for the business growth.

4.2.3 Overall Logistic Regression result of MSEs employment growth

Table shows the effect of explanatory variables on dependent variable. Before applying final model, bivariate analysis was applied to identify the candidate variables for the final model. Variables with p-value less than 0.05 were taken to the final model to see their independent effect on the dependent variable. The significance of individual parameter estimates was tested using Wald test.

As shown in table   Marital Status, previous business experience, motivation, staff quality, team work, staff training, staff motivation and social network were found to be significant variables that determine growth of MSEs in terms of employment at 5% level of significance.

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
	Step	240.095	29	.000
Step 1	Block	240.095	29	.000
	Model	240.095	29	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	75.807[a]	.648	.868

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	12.336	8	.137

Table 4.19 Output of the model for employment growth.

Variable	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Marstat			6.375	1	.012			
Single(Rf)								
Married	0.693	.275	6.375	1	.012	2.000	1.168	3.425
Prevexp			33.482	1	0.000			

	β	S.E.	Wald	df	Sig.	Exp(β)	Lower	Upper
Have no exp(Rf)								
Have exp	4.542	.785	33.482	1	0.000	93.858	20.154	437.106
Motivation			14.548	1	0.000			
By choice(Rf)								
Lack of alternative	-2.606	.683	14.548	1	.000	.074	.019	.282
Stfqual			18.909	1	0.000			
No stf qual(Rf)								
Have Stf qual	3.055	.703	18.909	1	0.000	21.219	5.355	84.086
Teamwork			12.105	1	0.001			
teamwork(Rf)								
No teamwork	-2.348	.675	12.105	1	0.001	.096	.025	.359
Stftrain			13.644	1	0.000			
No stftrain(Rf)								
Stf training	-2.746	.743	13.644	1	0.000	.064	.015	.276
Stfmot			15.781	1	0.000			
No stfmot(Rf)								
Stfmot	3.058	.770	15.781	1	0.000	21.291	4.709	96.274
SOC_NW			11.976	1	0.001			
Not involved(Rf)								
Involved	2.045	.591	11.976	1	0.001	7.732	2.428	24.627
Constant	-3.163	.745	18.013	1	0.000	.042		

Rf =Reference category, β =Regression coefficient, sig. =Significance, Exp(β)=Odd ratio, S.E. =Standard error

As output of the binary logistic model indicates 8 explanatory variables are significantly affecting the probability of MSEs employment growth. Whereas the rest 21 of the 29 explanatory variables were found to have no significant influence on MSEs growth. The effect of the significant explanatory variables on MSEs growth in study area is discussed below.

Marital Status

The Binary logistic regression result in table shows that marital status significantly affects the growth of MSEs. Married MSEs owners were 2.0 times more likely to be growing than single, widowed and divorced. This implies that married MSEs owners were most growing than that of single. This result is supported by studies done by Solomon et al., (2016) indicated that MSEs managed by married individuals grow relatively faster than those managed by their counterparts. Which indicated that MSEs owner who were single, divorced, or widowed were less likely to be growing. The reason might be that those MSEs who are single are less responsible than that of married and so that they independently make decision for work and may be risky.

Previous business experience of MSE owners (prevexp): was found positively and significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs owners who have previous business experience were 93.576 times more likely to be growing than those MSEs owners who have no previous business experience. This implies that MSEs whose owners have previous business experience had the probability to grow than that of no experience. This result is supported by result of the study done previously by Kokobe, (2013); Mulu, (2007) reported that a firm with more years of owners work experience typically have faster-growing than their counterparty. The reason might be that MSEs owners who had experience may can manage the business easily and ability to handle different challenges and participate actively in the market than owners who had no experience.

Motivation of MSE owners (motivation): was found significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs Owners who joined MSE by lack of alternative is 0.074 times less likely to be growing than those MSEs owners who have joined by choice. This implies that MSEs whose owners motivated to join the business by their own interest had the probability to grow than that of the owners joined because of lack of alternative. This result is supported by result of the study done previously by Dagmawit and yishak (2016) reported that owners start business by choice has better opportunity to grow as compared with owners start business because of lack of alternative. It is also consistent with the study by block and sanders (2009) who reported that entrepreneur who have opportunity driven motives have significant impact on growth of MSEs. The reason might be that MSEs owners who had joined by their interest may have strong self confidence and strong commitment to achieve success.

Staff with relevant qualification (stfqual): was found significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who had staff with relevant qualification with their work are 21.219 times more likely to be growing than those MSEs who had no relevant staff qualification. This implies that MSEs who had qualified staff had the probability to grow in terms of employment than that of the MSEs who are not had qualified staff. This result is supported by result of the study done previously by Solomon et al., (2016) who reported that the number of skilled production workers has a positive effect on the growth of MSEs.

Team work of MSEs (teamwrk): was found significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who had no team work between staff with their work are 0.096 times less likely to be growing than those MSEs who had team work. This implies that MSEs who had team work in its staff had the probability to grow in terms of employment than that of the MSEs who are not had team work in between staff.

Continuous Staff training of MSEs (stftrain): was found significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who gave continuous staff training for its employees are 0.069 times less likely to be growing than those MSEs who did not given continuous staff training for their employees. This implies that MSEs who gave training for its staff had the probability to grow in terms of employment than that of the MSEs who are not given training for their staff.

Motivating staff with good pay (stfmot): was found significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who motivate their staff with good pay are 21.291 times more likely to be growing than those MSEs who did not motivate their staff with good pay. This implies that MSEs who motivate their staff had the probability to grow in terms of employment than those of the MSEs who are not motivate their staff.

Social network (SOC_NW): was found significantly influences the probability of MSEs employment growth at less than 5% significance level. MSEs who involved in social networks are 7.291 times more likely to be growing than those MSEs who did not involved in social networks. This implies that MSEs who involved in different social relations had the probability to grow in terms of employment than those of the MSEs who are not involved. This result is supported by result of the study done previously by Geta and wolde (2015) who reported Social networks positively and significantly influence growth of MSEs in which it can help the owners to identify business opportunities and also conquer a number of difficulty related to transaction costs, contract enforcement, and regulation.

4.2.4 Over all Result of Logistic Regression of MSEs capital growth

Table shows the effect of explanatory variables on dependent variable. Before applying final model, bivariate analysis was applied to identify the candidate variables for the final model. Variables with p-value less than 0.05 were taken to the final model to see their independent effect on the dependent variable. The significance of individual parameter estimates was tested using Wald test.

As shown in table Age, previous business experience, training, sector, Access to market linkage, support of access to IT and support of access to advertising were found to be significant variables that determine growth of MSEs in terms of employment at 5% level of significance.

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
	Step	215.125	29	.000
Step 1	Block	215.125	29	.000
	Model	215.125	29	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	62.400^a	.608	.867

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	2.387	8	.967

Table 4.20 Output of the model for capital growth.

Variable	B	S.E.	Wald	Df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
age			2.592	2	0.274			
18-25(Rf)								
26-34	-1.187	.793	2.238	1	0.135	0.305	0.064	1.445
>34	-1.050	1.193	.775	1	0.379	0.350	0.034	3.626
Experience			19.494	1	0.000			
prevexp(Rf)								
prevexp	4.742	1.074	19.494	1	0.000	114.683	13.972	941.338

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	β	S.E.	Wald	df	sig.	Exp(β)		
Training			5.908	1	0.015			
Not-trained(Rf)								
Trained owner	2.040	.839	5.908	1	0.015	7.693	1.485	39.863
sector			8.365	4	0.079			
Service(Rf)								
manufacturing	2.879	1.138	6.403	1	0.011	17.800	1.914	165.555
construction	2.143	1.125	3.630	1	0.057	8.525	.940	77.303
trade	3.590	1.329	7.299	1	0.007	36.232	2.680	489.907
Urban agriculture	2.959	1.340	4.877	1	0.027	19.287	1.395	266.639
Market linkage			20.233	1	0.000			
No AC_MKTL(Rf)								
AC_MKTL	2.925	.650	20.233	1	0.000	18.631	5.209	66.638
Support of IT			7.025	1	0.008			
No SUPAC_IT(Rf)								
SUPAC_IT	-2.080	0.785	7.025	1	0.008	0.125	0.027	0.582
Support of advise			13.299	1	0.000			
No SUP_ADV								
SUP_ADV	2.966	.813	13.299	1	0.000	19.414	3.943	95.590
Constant	-5.615	1.320	18.093	1	.000	.004		

Rf =Reference category, β =Regression coefficient, sig. =Significance, Exp(β)=Odd ratio, S.E. =Standard error

Age

The Binary logistic regression result in table 4.13 shows that the owners of MSEs whose age was between 26 and 34 years were 0.305 times less likely to be growing than those MSEs whose age was between 18 and 25 years. And those MSEs whose age was older than 34 years were 0.35 times less likely to be growing than those MSEs whose age was between 18 and 25 years. This implies that MSEs aged between 18 and 25 years were more likely to be growing than older. This result is supported by a study previously done by Hailay *et al.,* (2014) indicated that younger age group is more likely growing than older age group and age of the owner/operator has an exact inverse relation with the growth of MSEs. Woldie *et al.,* (2008) also reported that the probability of growth of firms decreases as age increase.

Previous business experience of MSE owners (prevexp): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level**.** MSEs owners who have previous business experience were 114.683

times more likely to be growing than those MSEs owners who have no previous business experience. This implies that MSEs whose owners have previous business experience had the probability to grow than that of no experience. This result is supported by result of the study done previously by Kokobe, (2013) reported that a firm with prior business experience to be relevant for the growth of MSEs. Brown *et al.,* (2004) also reported previous business experience will avoid newness liability of the firms.

Training of MSE owners (training): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs owners who get entrepreneurship training were 7.693 times more likely to be growing than those MSEs owners who did not trained entrepreneurial training. This implies that MSEs whose owners who got entrepreneurial training had the probability to grow than that of not got training. This result is supported by result of the study done previously by Habtamu *et al.*, (2013) reported that a firm with prior business experience to be relevant for the growth of MSEs. But, previous study by Dagmawit andYishak (2016) found that there is no significant difference between entrepreneurial training and capital growth of MSEs.

Sector of MSEs (sector): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs who are operating in manufacturing, construction, trade and urban agriculture were 17.8, 8.525, 36.232 and 19.287 times more likely to be growing than those MSEs owners who are operating in service sector. This implies that MSEs engaged in other sectors had the probability to grow than that of service sector. This result is supported by result of the study done previously by kokobe (2013) reported that the sector of the firm has a significant impact on growth of MSEs and it determines the business growth in which MSEs who engaged in trade, manufacturing and construction have high chance of growth than other sector. But, previous study by Dagmawit andYishak (2016) found that there is no significant difference between sector of business and capital growth of MSEs.

Access to market linkage (AC_MKTL): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs who had access to market linkage were 18.631 times more likely to be growing than those MSEs who have no access to market linkage. This implies that MSEs who got

access to market linkage had the probability to grow than that of not got access to market. This result is supported by result of the study done previously by Admasu, (2012) reported that a firm with prior business experience to be relevant for the growth of MSEs. But, previous study by Dagmawit andYishak (2016) found that there is no significant difference between entrepreneurial training and capital growth of MSEs.

Support of IT service (SUP_IT): was found negatively and significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs who had support of access to IT service were 0.125 times less likely to be growing than those MSEs who have no support of access to IT service. This implies that MSEs who do not got support of IT service had the probability to grow than that those supported by IT service. This result is supported by result of the study done previously by Solomon *et al.,* (2016) reported that a firm with prior business experience to be relevant for the growth of MSEs. But, previous study by Dagmawit andYishak (2016) found that there is no significant difference between entrepreneurial training and capital growth of MSEs.

Support of advise/ consulting (SUP_IT): was found positively and significantly influences the probability of MSEs capital growth at less than 5% significance level. MSEs who got support of advising service were 19.414 times more likely to be growing than those MSEs who have no support of advising service. This implies that MSEs who got support of advisory service had the probability to grow than that those not supported by advising service. But, previous study by Dagmawit andYishak (2016) found that there is no significant difference between entrepreneurial training and capital growth of MSEs.

4.3 Model Diagnostics

The adequacy of the fitted model was checked for possible presence and treatment of outliers, and influential cases. The diagnostic test results for detection of outliers and influential values are presented in Table 4.19 and 4.20. The minimum and maximum values of the test results for Cook's influence statistics are in Table 4.19 and 4.20. The DFBETAs for model parameters and Cook's influence statistic were both less than unity. DFBETAs less than unity implies no specific impact of an observation on the coefficient of a particular predictor variable whereas Cook's distance less than unity showed that an

observation had no overall impact on the estimated vector of logistic regression coefficients (β). The normalized residuals were within the interval of -3 and 3 implying that no outliers were detected at 0.05% level of significance.

Multicolliniarity: In the 'collinearity diagnostics' two values are given: Tolerance and VIF. Tolerance is an indicator of how much of the variability of the specified independent variables is not explained by the other independent variables in the model and is calculated using the formula $1-R^2$ for each variable. If this value is very small (less than .10), it indicates that the multiple correlation with other variables is high, suggesting the possibility of multicollinearity.

The other value given is the VIF (Variance inflation factor), which is just the inverse of the Tolerance value (1 divided by Tolerance).VIF values above 10 would be a concern here, indicating multicollinearity. In this study the tolerance value for each independent variable is well above .10 which confirms that multicollinearity assumption is maintained. This is also supported by the VIF value, which is well below the cut-off of 10 and for discrete variables all values below 0.75 which indicate there is no multicolliniarity (Appendix).

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The main objective of this study was to identify determinants of MSEs growth in Hossana town. The study revealed the effect of Human capital, business characteristics, institutional factor and business development service support determinants on MSEs growth. The result indicated that out of the total MSEs about 44.35% were growing and 55.65% were non-growing in terms of employment size. In terms of capital growth out of the total sample MSEs, 70.87% of them were growing and the remaining 29.13% of MSEs were non-growing.

The chi-square test for MSEs growth indicated that from human capital factors age, marital status, educational level, previous business experience, motivation, entrepreneurship training, staff, staff quality, team work, staff training, motivating staff and retaining experienced staff have statistically significant association with the outcome variable MSEs employment and capital growth at 5% level of significance. Business characteristics of firms, types of enterprise, firm age, working place ownership, location, business plan, sector and startup capital have statistically significant association with the outcome variable MSEs employment and capital growth at 5% level of significance. Institutional factors, Access to finance, Access to market linkage, Access to electric power, Access to transport and social network have statistically significant association with the outcome variable MSEs employment and capital growth at 5% level of significance. Business development service support, support of access to market and support of advisory/consulting have statistically significant association with the outcome variable MSEs employment and capital growth at 5% level of significance.

The result of binary logistic regression model also revealed that human capital factors: Marital Status, previous business experience, motivation, staff quality, team work, staff training and staff motivation were found to be significant variables that determine growth of MSEs in terms of employment at 5% level of significance. And also Age, marital status, education level, previous business experience, training and staff were found to be

significant variables that determine growth of MSEs in terms of capital at 5% level of significance. As indicated here most of the human capital factors are the main determinant and influential factors which are difficult to imitate from others, because they are behavioral aspects.

The result of binary logistic regression model also revealed that business characteristics: Business existence, location of enterprise, business plan and initial employment size were found to be significant variables that determine growth of MSEs in terms of employment at 5% level of significance. And also location of enterprise, Business plan and startup capital were found to be significant variables that determine growth of MSEs in terms of capital at 5% level of significance. As the result shows the business characteristics especially business plan and location of the enterprise are the main strategic variables for a firm.

The result of binary logistic regression model also revealed that institutional factors, Access to finance, Access to market linkage, Access to electric power, Access to transport and social network were found to be significant variables that determine growth of MSEs in terms of employment at 5% level of significance. And also Access to finance, Access to market linkage, Access to electric power and social network were found to be significant variables that determine growth of MSEs in terms of capital at 5% level of significance. These factors are related to the external institutional relation with others. Almost all factors are important and vital for the growth of MSEs in which it needs the effort and commitment of the firm owners to get this access and cover cost of it.

The result of binary logistic regression model also revealed that business development service (BDS), support of access to market and support of advisory/consulting were found to be significant variables that determine growth of MSEs in terms of employment at 5% level of significance. And also support of access to market, support of IT service and support of advisory/consulting were found to be significant variables that determine growth of MSEs in terms of capital at 5% level of significance. These factors are important factors for the growth of MSEs and which are provided by government and NGOs or any interested body to support the development programs by their own cost.

5.2 Recommendations

Based on the findings of this study the following recommendations are made: The study recommends that the government should give due emphasis for the MSEs who are playing a great role in the economy and they are vital for unemployment reduction. The government should come up with favorable policies which initiate the existing micro and small enterprise and inspire others to come in to this business and need to formulate policies and strategies based on research findings in home country rather than copy and implement policies from other countries.

There should be also the government as responsible bodies need to put in place much more helpful institutional frame work for MSEs and create link with higher institutions and participate academicians to support with research and development as well as capacity building of MSEs. There is need for a policy guide on regulatory and supervisory frameworks, infrastructure, and public interventions to improve access to needed resources by MSEs. There is need for the government to design and enforce an enabling regulatory environment which improves the efficiency and effectiveness of supportive bodies and also for MSEs. The government also should undertake capacity building activities for MSEs.

All stakeholders concerned with MSEs which are public institutions and supporting non-governmental organizations should create integration to support and create conducive environment to the MSEs and should focus on sector wise support in order to solve firm specific problems and capacity building.

Owners should establish enterprise oriented skill transfer in order to be competitive by using its human capital aspect which is important with specific MSE conditions. They should also create experience sharing ground for their employees with other successful firms.

The MSEs owners should try to create integration with different supporting institutions, like microfinance, inter-firm linkage (vertical and horizontal) and other organizations which are related with MSEs in order to get access to market, finance, information and business development services. Follow modern way of doing through planning business in order to be competitive, have organizational policies which support and facilitate their

business operation and use of technology for their different business activities are necessary.

5.3 Limitation and Future research direction

The study has get across the determinant of growth of MSEs in Ethiopia specifically in Hossana town. The study therefore recommends that to add weight to this study: Since this study was cross sectional, further studies should be done on the same factors influencing growth of MSEs in a different region and on other factors influencing growth of MSEs. This is because the study limited to only four factors influencing growth of MSEs and consequently parting out others which can be researched on further.

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APENDICES

APPENDIX- III English Questionnaire

JIMMA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF MANAGEMENT

MBA PROGRAM

QUESTIONNAIRE FOR MSE MANAGERS

Dear Respondent,

This questionnaire is prepared by Negatu Abera, student of Jimma University, College of Business and Economics, Department of Management for partial fulfillment of the Requirements of Masters of Business Administration.

The objective of this study is to identify the possible determinants of Micro and Small enterprise growth in Hossana town. The information is collected purely for academic purpose and has no claim with any governmental or non-governmental organization. And your personal information will be kept confidential and will not be used in any form for another purpose. Therefore, I respectfully request your kind cooperation in answering the following questions as clearly and frankly as possible.

Thank you in advance for your kind cooperation!

If you have any question, you can contact the researcher by the following addresses:

Mobile: 09-61-93-55-14 or Email address: nigatuabera@yahoo.com

PART-I Human capital information
i. Owners related information
1. Age   A. 18-25   B. 26-34   C. older than 34

2. Sex of owner   A. Female   B. Male

3. What is your marital status?

    A. Single   B. Married   C. Widowed   D. Divorced

4. What is your level of education?

    A. No education

    B. Primary

    C. Secondary

    D. Diploma or above

5. Do you have previous business experience?

    A. Yes   B. No

6. What is your motivation to start the business?

    A. By choice   B. Lack of alternative

7. Have you got any entrepreneurship training before?

    A. Yes   B. No

       ii. **Staff related information**

8. Do you have staff?

    A. Yes   B. No

9. Is your staff having with relevant qualification?

    A. Yes   B. No

10. Is there team work among the employees?

    A. Yes   B. No

11. Is there continuous staff training?

    A. Yes   B. No

12. Is there motivating staff with good pay?

    A. Yes   B. No

13. Do you retain experienced staff?

    A. Yes   B. No

PART-II BUSINESS RELATED INFORMATION

14. What is your type of enterprise?

    a.   group

    b.   individual

c. Family

15. For how long has the business been in existence?

    A. 3-6 years   B. 7-10 years   C. 11- 14years   D. More than 14 years

16. Who is the owner of your business operation working place?

    A. Home   B. Rental   C. government provide   D. NGO Constructed

17. Where is your Location of your enterprise?

    A. Near to downtown   B.   Far from downtown

18. Do you have Business plan?

    A. Yes   B. No

19. Which sector do you operate?

    A. Service

    B. Manufacturing

    C. Construction

    D. Trade

    E. Urban Agriculture

20. How much is your startup capital category?

    A. 100-5000   B. 5001-10000   C. 10001-50000   D. 50001-100000

    E . >100000

21. How much is initial employment size in your enterprise?_____

PART-III INSTITUTIONAL RELATION INFORMATION

22. Do you have Access to Finance?

    A. Yes   B. No

23. If yes for Q.No 16 what is your major source of finances for your business?

    A. Bank   B. Microfinance   C. Other………………….

24. Do you have access market linkage?

    A. Yes   B. No

25. If yes for Q.N 18 what type of market linkage are you engaged?

    A. Forward (with buyers)   B. Backward (with suppliers)

26. Do you have access to electric power?

    A. Yes   B. No

27. Do you have access to transportation?

    A. Yes   B. No

28. Do you involve in social network?

    A. Yes   B. No

PART- IV BUSINESS DEVELOPMENT SERVICE (BDS)

29. Have you been supported to get access to the market?

    A. Yes   B. No

30. If yes for Q.N 26 through what you get access to market?

    A. Market research   B. Market information   C. Trade Fairs D. Product exhibitions   E. Advertising

31. Have you been supported to access IT related services?

    A. Yes   B. No

32. If yes for Q.N 28 what type of IT service is supported?

    A. Computer service

    B. Internet service

33. Have your business been supported in advisory or consulting?

    A. Yes   B. No

34. If yes for Q.N 20 which type of Business Counseling/ advisory services

    A. Business plan development   B. Credit management

    C. Legal service advices   D. Financial management

    D. Book keeping (financial record keeping)   F. Tax advice

    E. Any other………………………

PART V: GROWTH INDICATORS INFORMATION

35. Do your number of employees' number growing?
    A. Yes   B. No

36. How many is your initial employee size of your business?.............................

37. How many employees are there in your business now? ....

38. Do your business capital growing?
    A. Yes   B. No

39. How much is your startup capital?..

40. How much is your capital now? ………………………………….

ጅማዩኒቨርስቲ
የ ቢዝነስ እና ኢኮኖሚክስ ኮሌጅ
ማኔ ጅመንት ትምህርት ክፍል
የ ማስተርስ ዲግሪ ፕሮግራም

ውድ መልስ ሰጪዎችን ይህ መጠይቅ የተዘጋጀዉ በጅማ ዩኒቨርስቲ የቢዝነስ እና ኢኮኖሚክስ ኮሌጅ ማኔ ጅመንት ትምህርት ክፍል የማስተርስ ተማሪ በሆነ ዉበንጋቱ አበራ ነዉ: :

መጠይቁ የተዘጋጀበት ዋናዉ አላማዉ የጥቃቅንና አነስተኛ ኢንተርፕራይዞች ዕድገት ላይ ዋና ዋና ምክንያቶችን ለማጥናት ነዉ : የማስጡት መልስ ከወረቀቱ እና ከእረስዎ ዉጪ ምስጥራዊ መሆኑን ተረድተው ትክክለኛዉን መልስ በነፃነት ይመልሱልኝ ዘንድ በትህትና እጠይቃአለዉ: :

ይህን መጠይቅ ለመሙላት ፍቃደኛ በመሆንዎ እጅግ በጣም እመሰግናለሁ: :

መጠይቅ

ሀ . የሰዉ ህብት መረጃ

ሀ .1 ከባለቤቱ ጋር የተያያዘ መረጃ
1. ዕድሜ -   ከ 18-25☐   ከ 26-34 ☐   ከ 34 በላ ☐

2. የ ጋብቻ ሁኔ ታ: -   ያገ በ☐   ያለ ☐/ች   ባ ሊ/ማስ ቱ የ ሞ☐ ት /በ ት   ☐
    አ ግቶ/ታ የ ፈ ታ/ች

    ☐   ☐

3. ፆ ታ: - ወንድ   ሴት

4. የ ትምህ ር ት ደረ ጃዎ?   ያ ል ተ ☐/ች   አ ን ድ ☐ ረ ጃ   ሁ ለ ☐ ደረ ጃ   ☐
    ዲ ፕ ሎ ማ ና ከ ዚ ያ በ ላ ይ

                                                   ☐   ☐

5. የ በ ፊ ት የ ን ግ ድ ስ ራ ል ምድ አ ል ዎ ት ?   አ ዎ   አ ይ ደ ለ ም

6. የ ን ግ ድ ስ ራ ለ መ ጀ መ ር ምን አ ነ ሳ ሳ ዎ ት ?   በ ☐ ነ ት   አ ማ ራ ጭ በ ☐ ኤ ለ

7. ከ ዚ ህ በ ፊ ት የ ኢ ን ተ ር ፕ ረ ኒ የ ር ሽ ፕ ስ ል ጠ ና ወ ስ ደ ዉ ያ ዉ ቃ ሉ ☐   አ ዎ   ☐
    አ ይ ደ ለ ም

ሀ .2 ከስራተኞች የተገናኘ መረጃ   ☐   ☐

8. በ ስ ር ዎ የ ማ ስ ፉ ስ ራ ተ ኞ ች አ ሉ ?   አ ዎ   ☐ ይ ደ ለ ም   ☐

9. ሰ ራ ተ ኞ ቹ ተ ገ ቢ ዉ ዕ ዉ ቀ ት ና ክ ህ ሎ ት አ ላ ቸ ዉ? ☐   አ ዎ   ☐ ይ ደ ለ ም

                                  |

                                              ☐   ☐

                                      ☐   ☐

                                          ☐   ☐

10. በሰራተኞች መካከል የቡድን ስራ አለ? አዎ አይደለም

11. ቀጣይነት ያለውስልጠና ለሰራተኞች ይሰጣል? አዎ አይደለም

12. ሰራተኞችን በጥሩ ክፍያ ታበረታታለችሁ? አዎ አይደለም

13. ልምድ ያለቸውን ሰራተኞች ራሳችሁ ጋር እንዲቆዩ ታደርጋላችሁ? አዎ
አይደለም

ለ. ከንግድ ድርጅቱ ጋር የተያያዙ መረጃዎች

14. የኢንተርፕራይዝት ዓይነት የትኛውነ ው? የ ግ ን የ ግል
የ ቤተሰብ

15. የንግድ ስራዎን ከጀመሩ ምን ያህል ዓመት ሆነ ? ከ 3-6 ከ 7-10 ከ 11-14
ከ 14 በላይ

16. አሁን የ ማሩበት ቦታ ባለቤትነት የ ማን ነ ው? የራስዎ ቤት የኪራይ ቤት
ከመንግስት የተሰጠ

    ማያ ድ(NGO) የ ሰራዉ

17. የንግድ ቤትዎ የ ማንጃበት አካባቢ የት ነ ው? የከተማውገበያ ኃል አቅራቢያ
ከከተማውንግድ ስፍራ ወጣ ያለ

18. የንግድ ስራ ዕቅድ አለዎት አዎ አይደለም

19. የንግድዎ ዘርፍ የ ትኛውነ ው? አገ ግሎት ማምረ ቻ የ ክ በ ታ ሥራ
ማከፋፈል/ችርቻር ንግድ የ ከ ተማግብርና

20. የንግድ ስራዎን የ ጀመሩበት ካፒታል ምን ያህል ነ ው? -5000 1-10000
10001-50000 50001-100000 >100000

21. ንግድዎን ሲጀምሩ የነበረ የሰራተኛ ብዛት ስንት ነ ዉ.......................

ሐ. ከተለያዩ ተቋማት የ ማግኝ አገ ልግሎት መረ ጃ

22. ገ ን ዘብ የ ማግኘት ምቹ ሁኔ ታ አለ ? አ ዎ አ ይ ደ ለ ም

23. ለጥያቄ 22 አለ ካሉ የ ገ ን ዘ ብ ዎ ምንጭከየ ት ነ ዉ ባ ን ክ ማ ይ ክ ፋ ይ ና ን ስ
ሌ ሎች ....

24. ለንግድዎ የ ገ በ ያ ትስስር ግን ኙ ነ ት አለ ዎት? አ ዎ አ ይ ደ ለ ም

II

25. ለጥያቄ 6 እስከ ካሉ ምን ዓይነት ጥምረት ነ ውያለዎት? ከገዢዎች ጋር ነ ው ከአቅራቢዎች ጋር ነው

26. የ መብራት ሀይል ተደራሽነት አለ?   አ ዎ   አ ይደለ ም

27. የ ትራንስፖርት ተደራሽነት አለ?   አ ዎ   አ ይደለ ም

28. በ ማህበራዊ ትስስር ይሳተፋሉ?   አ ዎ   አ ይደለ ም

የ ን ግድ ል ማት ድ ጋ ፍ አ ገ ል ግ ሎት መረ ጃ

29. ምር ትዎን ለ ገ በ ያ እነ ዲያቀርቡ ድጋ ፍ አ ግኝተ ው ያ ው ቃ ሉ?   አ ዎ
አ ይደለ ም
                                                                                          ☐

30. ለ ጥያቄ 29 አ ዎ ካ ሉ በ ምን ዓይነ ት መል ኩ ነ ው ድጋ ፍ ያ ገ ኙ ት?   የ ገ በ ያ ጥና ት
በ ማ ደረ ግ ☐   የ ገ በ ያ መረ ጃ በ ማስ ጠ ☐   ነ ፃ የ ን ግ ድ መ ደረ ☐ ክ ማ መ ቻ ቸ ት   ☐
ኢ ግ ዚ ቢ ሽ ን በ ማ ዘ ጋ ጀ ት   በ ማስ ታ ወ ቂ ያ ስ ራ
ሌ ሎ ች ……………………………

31. የ ኢ ኮ ቴ ጋ ር በ ተ ያ ያ ዘ ድ ጋ ፍ አ ግ ኝ ተ ው ያ ው ቃ ሉ?   ☐   አ ይ ☐

32. ለ ጥ ያ ቄ 31 አ ዎ ካ ሉ ምን ዓ ይ ነ ት የ ኢ ኮ ቴ ድ ጋ ፍ ነ ው የ ተ ደ ረ ገ ል ዎ ት? የ ኮ ☐ ፒ ተ ር   ☐
አ ገ ል ግ ሎ ት   ኢ ን ተ ር ኔ ት አ ገ ል ግ ሎ ት
                                                                                          ☐   ☐

33. የ ን ግ ድ ማ ማ ከ ር አ ገ ል ግ ሎ ት ድ ጋ ፍ አ ግ ኝ ተ ው ያ ው ቃ ሉ?   አ ዎ
አ ይ ደለ ም

34. ለ ጥ ያ ቄ 33 አ ዎ ካ ሉ ምን ዓ ይ ነ ት የ ማ ማ ከ ር ድ ጋ ፍ ነ ው የ ተ ደ ረ ገ ል ዎ ት?   የ ን ☐ ዕ ቅ ድ   ☐
ዝ ግ ጅ ት ☐ በ ብ ር አ ያ ያ ዝ ☐ ን ጉ ዳ ይ   የ ገ ን ☐ አ ያ ያ ዝ   የ ሂ ☐ መ ዘ ገ ብ
አ ያ ያ ዝ   የ ግ ብ ር ማ ማ ከ ር   ሌ ሎ ች ………………
                                                                                          ☐   ☐

መ. የ ዕ ድ ገ ት አ መ ላ ካ ቾ ች መረ ጃ

35. የ ን ግ ድ ስ ራ ዎ ላ ይ የ ማ ስ ፋ ስ ራ ተ ቾ ች ቁ ጥ ር ☐ ም � ል?   አ ዎ   ☐   አ ይ ደለ ም

36. ሥ ራ ሲ ጀ ም ሩ ምን ያ ህ ል ሰ ራ ተ ኛ ነ በ ር ዎ ት

37. በ አ ሁ ኑ ሰ ዓ ት ምን ያ ህ ል ሰ ራ ተ ኛ አ ለ ዎ ት ……………………………

38. የ ን ግ ድ ስ ራ ዎ ካ ፒ ታ ል ጨ ም ሯ ል?   አ ዎ   አ ይ ደለ ም

41. በአሁኑ ሰዓት ያለዎት ካፒታል መጠን ………………………….ሲጀምሩ የነበሮዎት ካፒታል …………………

Appendix II

Table 1. Multicollinearity test for continuous explanatory variables that included in model (employment growth).

Coefficients[a]		
	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
BUSEXIST	.485	2.063
STARCAP	.407	2.458
INTIALEMP	.634	1.576

Table 2. Multicollinearity test for continuous explanatory variables that included in model (capital growth).

Coefficients[a]		
	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
BUSEXIST	.485	2.063
STARCAP	.407	2.458
INTIALEMP	.634	1.576

Table 3. Contingency coefficient for discrete explanatory variables included in model employment growth and capital growth

Variables employment	Total sample size	X²	Value of C	Variables capital	Total sample size	X²	Value of C
AGE	230	35.15	0.364	AGE	230	25.20	0.314
SEX	230	0.65	0.053	SEX	230	1.05	0.067
EDUCSTAT	230	28.56	0.332	EDUCSTAT	230	35.26	0.365
MARSTAT	230	13.11	0.232	MARSTAT	230	26.56	0.322
PREVEXP	230	69.39	0.481	PREVEXP	230	87.84	0.526
MOTIVATION	230	26.51	0.321	MOTIVATION	230	10.62	0.210
TRAINING	230	40.8	0.388	TRAINING	230	56.76	0.445
STAFF	230	23.09	0.302	STAFF	230	45.13	0.405
STFQUAL	230	53.36	0.434	STFQUAL	230	33.28	0.356
TEAMWRK	230	9.09	0.195	TEAMWRK	230	22.63	0.299
STFTRAIN	230	0.056	0.016	STFTRAIN	230	10.98	0.213
STFMOT	230	33.25	0.355	STFMOT	230	19.39	0.279
RETEXPSTF	230	15.67	0.253	RETEXPSTF	230	17.21	0.264
ENTERTYP	230	19.14	0.277	ENTERTYP	230	35.32	0.365
WPOWNER	230	43.73	0.400	WPOWNER	230	22.48	0.298
LOCATION	230	50.87	0.426	LOCATION	230	25.83	0.318
BPLAN	230	21.80	0.294	BPLAN	230	30.57	0.343
SECTOR	230	11.45	0.218	SECTOR	230	40.11	0.385
ACCFIN	230	45.89	0.408	ACCFIN	230	51.40	0.427
ACCMKTL	230	50.41	0.424	ACCMKTL	230	81.87	0.512
ACCEPWR	230	2.75	0.109	ACCEPWR	230	7.91	0.182
ACCTRP	230	25.56	0.316	ACCTRP	230	16.92	0.262
SOCNW	230	75.29	0.497	SOCNW	230	42.64	0.395
SUPMKT	230	44.69	0.403	SUPMKT	230	34.65	0.362
SUPIT	230	1.61	0.083	SUPIT	230	0.92	0.063
SUPAD	230	34.56	0.361	SUPAD	230	58.31	0.450

Source; own estimation result

APPENDIX- II- Logistic Regression output

v

Capital growth output

Classification Table[a]

Observed			Predicted		
			growth status interms of capital		Percentage
			non-growing	growing	Correct
Step 1	growth status interms of capital	non-growing	59	8	88.1
		growing	7	156	95.7
	Overall Percentage				93.5

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	age	-2.779	1.173	5.615	1	.018	.062	.006	.618
	sex	-1.797	1.131	2.525	1	.112	.166	.018	1.521
	marstat	2.340	1.257	3.468	1	.063	10.381	.884	121.847
	educstat	-.908	.606	2.248	1	.134	.403	.123	1.322
	prevexp	5.042	1.581	10.172	1	.001	154.738	6.982	3429.196
	motivation	-.359	1.011	.126	1	.722	.698	.096	5.061
	training	3.312	1.346	6.059	1	.014	27.439	1.964	383.444
	staff	-.902	2.111	.183	1	.669	.406	.006	25.401
	stfqual	-2.044	1.537	1.769	1	.184	.129	.006	2.634
	teamwrk	1.840	1.584	1.349	1	.245	6.295	.282	140.352
	stftrain	.459	1.453	.100	1	.752	1.583	.092	27.313
	stfmot	-1.588	1.779	.797	1	.372	.204	.006	6.678
	Retexpstf	-.673	1.244	.292	1	.589	.510	.045	5.845
	enterptyp	-1.323	.780	2.880	1	.090	.266	.058	1.228
	busexist	.599	1.148	.272	1	.602	1.821	.192	17.276
	WPowner	.860	.534	2.594	1	.107	2.363	.830	6.731
	locaton	1.771	1.378	1.653	1	.198	5.879	.395	87.498
	Bplan	.111	.852	.017	1	.896	1.118	.211	5.932
	sector	1.342	.616	4.740	1	.029	3.827	1.143	12.810
	startcap	-.069	.572	.014	1	.904	.934	.305	2.862
	initialemp	-1.357	1.300	1.089	1	.297	.257	.020	3.291
	AC_FIN	1.311	1.002	1.710	1	.191	3.709	.520	26.458

AC_MKTL	3.679	1.325	7.709	1	.005	39.606	2.951	531.638
AC_EPWR	1.569	1.564	1.006	1	.316	4.799	.224	102.820
AC_TRP	2.218	1.294	2.935	1	.087	9.185	.727	116.085
SOC_NW	1.469	1.152	1.628	1	.202	4.346	.455	41.524
SUPAC_MKT	.913	1.320	.478	1	.489	2.491	.187	33.120
SUPAC_IT	-3.356	1.498	5.017	1	.025	.035	.002	.657
SUP_ADV	4.181	1.644	6.468	1	.011	65.434	2.609	1641.386
Constant	-5.041	4.056	1.545	1	.214	.006		

a. Variable(s) entered on step 1: age, sex, marstat, educstat, prevexp, motivation, training, staff, stfqual, teamwrk, stftrain, stfmot, Retexpstf, enterptyp, busexist, WPowner, locaton, Bplan, sector, startcap, initialemp, AC_FIN, AC_MKTL, AC_EPWR, AC_TRP, SOC_NW, SUPAC_MKT, SUPAC_IT, SUP_ADV.

Employment Growth output

Classification Table^a

Observed		Predicted		
		growth status interms of employement		Percentage Correct
		non-growing	growing	
growth status interms of employement (Step 1)	non-growing	120	8	93.8
	growing	6	96	94.1
Overall Percentage				93.9

a. The cut value is .500

	B	S.E.	Wald	Df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
AGE	.230	.849	.073	1	.787	1.258	.238	6.640
SEX	-.314	.802	.153	1	.696	.731	.152	3.520
MARSTAT	-2.743	1.079	6.467	1	.011	.064	.008	.533
educstat	.308	.530	.338	1	.561	1.361	.482	3.843
prevexp	4.850	1.223	15.715	1	.000	127.697	11.611	1404.412
motivation	-3.003	1.107	7.355	1	.007	.050	.006	.435
training	.974	.787	1.532	1	.216	2.649	.566	12.390
Staff	-.126	1.394	.008	1	.928	.882	.057	13.552
stfqual	2.370	1.125	4.433	1	.035	10.694	1.178	97.069
teamwrk	-1.813	.934	3.769	1	.052	.163	.026	1.017
stftrain	-4.037	1.209	11.149	1	.001	.018	.002	.189
stfmot	2.832	1.025	7.628	1	.006	16.975	2.276	126.636
Retexpstf	.041	.976	.002	1	.967	1.042	.154	7.053
enterptyp	.759	.560	1.838	1	.175	2.135	.713	6.393
busexist	1.348	.928	2.110	1	.146	3.850	.625	23.735
WPowner	-.846	.536	2.495	1	.114	.429	.150	1.226
locaton	1.487	1.176	1.600	1	.206	4.424	.442	44.308
Bplan	-.181	.922	.039	1	.844	.834	.137	5.079
sector	.380	.349	1.184	1	.276	1.463	.737	2.901
startcap	.576	.436	1.740	1	.187	1.778	.756	4.182
initialemp	-1.411	1.053	1.796	1	.180	.244	.031	1.920
AC_FIN	1.303	.951	1.879	1	.170	3.680	.571	23.720
AC_MKTL	.865	.933	.860	1	.354	2.375	.382	14.788

AC_EPWR	.318	1.460	.047	1	.827	1.375	.079	24.052
AC_TRP	.943	1.467	.413	1	.520	2.568	.145	45.576
SOC_NW	2.247	.882	6.489	1	.011	9.464	1.679	53.340
SUPAC_MKT	.623	.995	.392	1	.531	1.864	.265	13.098
SUPAC_IT	.390	.886	.194	1	.660	1.477	.260	8.381
SUP_ADV	.216	1.263	.029	1	.864	1.241	.104	14.744
Constant	-4.672	4.294	1.184	1	.277	.009		

a. Variable(s) entered on step 1: age, sex, marstat, educstat, prevexp, motivation, training, staff, stfqual, teamwrk, stftrain, stfmot, Retexpstf, enterptyp, busexist, WPowner, locaton, Bplan, sector, startcap, initialemp, AC_FIN, AC_MKTL, AC_EPWR, AC_TRP, SOC_NW, SUPAC_MKT, SUPAC_IT, SUP_ADV.

Table 4.19: Results of Diagnostic Tests for Influential Values for employment growth

	N	Minimum	Maximum
Analog of Cook's influence statistics	230	0.00000	0.133685
Standard residual	230	-1.36472	2.09461
Normalized residual	230	-1.123593	2.415467
DFBETA for constant	230	-0.029712	0.028125
DFBETA for marstat(1)	230	-0.014353	0.019712
DFBETA for marstat(2)	230	-0.010108	0.019712
DFBETA for marstat(3)	230	-0.019507	0.015801
DFBETA for prevexp(1)	230	-0.020977	0.022964
DFBETA for motivation(1)	230	-0.029405	0.029782
DFBETA for stfqual(1)	230	-0.023275	0.025421
DFBETA for teamwrk(1)	230	-0.027258	0.021212
DFBETA for stftrain(1)	230	-0.027075	0.028312
DFBETA for stfmot(1)	230	-0.022172	0.028073
DFBETA for busexist(1)	230	-0.028125	0.024538
DFBETA for busexist(2)	230	-0.028125	0.025459
DFBETA for busexist(3)	230	-0.028125	0.025688
DFBETA for locaton(1)	230	-0.017016	0.010901
DFBETA for Bplan(1)	230	-0.018286	0.027508
DFBETA for initialemp(1)	230	-0.021864	0.020801
DFBETA for AC_FIN(1)	230	-0.027762	0.010584
DFBETA for AC_MKTL(1)	230	-0.018789	0.025179
DFBETA for AC_EPWR(1)	230	-0.010558	0.014716
DFBETA for AC_TRP(1)	230	-0.012959	0.015568
DFBETA for SOC_NW(1)	230	-0.027336	0.024528
DFBETA for SUPAC_MKT(1)	230	-0.013095	0.011866

	N	Minimum	Maximum
DFBETA for SUP_ADV(1)	230	-0.010508	0.018097
Valid N (listwise)	230		

SPSS output,2017

Table 4.20: Results of Diagnostic Tests for Influential Values for capital growth

	N	Minimum	Maximum
Analog of Cook's influence statistics	230	0.00000	0.128900
Standard residual	230	-1.460021	2.122084
Normalized residual	230	-0.94568	0.9354
DFBETA for constant	230	-1.17253	1.80516
DFBETA for age(1)	230	-0.017221	0.015024
DFBETA for age(2)	230	-0.025625	0.020163
DFBETA for marstat(1)	230	-0.026082	0.021454
DFBETA for marstat(2)	230	-0.025614	0.026367
DFBETA for marstat(3)	230	-0.025818	0.028242
DFBETA for educstat(1)	230	-0.026249	0.021081
DFBETA for educstat(2)	230	-0.015368	0.019674
DFBETA for prevexp(1)	230	-0.013565	0.022457
DFBETA for training(1)	230	-0.028264	0.023304
DFBETA for staff(1)	230	-0.013492	0.015157
DFBETA for locaton(1)	230	-0.025008	0.019863
DFBETA for Bplan(1)	230	-0.018631	0.021388
DFBETA for startcap(1)	230	-0.029926	0.014156
DFBETA for startcap(2)	230	-0.026302	0.028209
DFBETA for startcap(3)	230	-0.017254	0.016814
DFBETA for startcap(4)	230	-0.011101	0.016542
DFBETA for AC_FIN(1)	230	-0.017552	0.014508
DFBETA for AC_MKTL(1)	230	-0.016611	0.015987
DFBETA for AC_EPWR(1)	230	-0.017381	0.018233
DFBETA for SOC_NW(1)	230	-0.029088	0.021197
DFBETA for SUPAC_MKT(1)	230	-0.027586	0.010832
DFBETA for SUPAC_IT(1)	230	-0.012045	0.019006
DFBETA for SUP_ADV(1)	230	-0.013453	0.025672
Valid N (listwise)	230		

Source; SPSS, 2017

X