



## ASSESSMENT OF FACTORS DETERMINING TRANSFORMATION OF MICRO AND SMALL ENTERPRISES TO MEDIUM LEVEL INDUSTRY IN ETHIOPIA

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**Abstract:** *Vitality of Micro and small enterprises for both developed and developing countries at the standpoint of economy is well explicated by creating employment opportunity and supporting large manufacturing companies. The results of most research studies reveal that most of micro and small enterprises in Ethiopia have many problems for transformation and growth due to different factors which has proceeded this research with an objective to assess the determinant factors for micro and small enterprises transformation into medium level industry in Addis Ababa City Administration by taking a sample of 74 transformed micro and small enterprises from different sectors in 10 sub cities. The study was an explanatory design and more of quantitative approach in nature. Data were collected by using a pre designed person assisted questionnaire. The researcher used both correlation and regression analysis to show the relationship among the dependant and the independent variables and to test the hypothesis drawn as well. The results provide evidence that finance access, management know how, market access, support MSEs get, accounting and record keeping is positively and significantly related with average capital growth. Poor infrastructure and is negatively and significantly related with average capital growth but no relationship between technology and government rules and regulations with both average capital growth and average employment growth. The research has contributed dexterous recommendations to the related communities.*

**Key words:** *MSEs, Transformation, Determinant factor, Addis Ababa, Medium level industry, Enterprise*

### I. INTRODUCTION

Micro and Small Enterprises (MSE) are regarded as the driving forces of economic growth, job creation, and poverty reduction in developing countries in general Ethiopia in particular. They have been the means through which accelerated economic growth and rapid industrialization have been achieved (Endalkachew, 2008). According to Liedholm and Mead (1990), micro and small enterprises are more labor-intensive than large ones, and some even find that the smaller also “produce more output (value added) per unit of capital and thus generate more output as well as employment for a given investment than do larger firms”. With increased urban population dynamics of Sub-Saharan Africa (SSA), the importance of (MSEs) is also growing. In SSA, given the rapid

rural-urban migration and deficiency to absorb this migration, MSEs have become important urban economic activities and providers of urban employment. In cities and towns of Ethiopia, MSEs and informal sector in general are the predominant income generating activities; they have a significant contribution to local economic development and used as the basic means of survival (Andualem, 2001).

According to many empirical studies small, medium and micro enterprises (SMMEs) are an important sector of any economy. SMMEs are vital in their contribution to employment creation and value reorientation. SMMEs also play a vital role in poverty reduction as well as economic development of both developed and developing countries in general Ethiopia in particular. The sector is also

known as an instrument in bringing about economic transition by effectively using the skill and talent of the people without requesting high-level training, much capital and sophisticated technology. However, there in process operations are not well understood and have rarely been addressed. A study conducted by Shakantu (2010) the operational challenges as lack of finance, training and business skills; limited skills in Information Technology (IT) and prevalence of unethical conduct amongst some of the stakeholders are the challenges of MSEs.

A research conducted by Indarti and Langenberg (2008) also identifies the determinant factors for MSE success includes capital access, marketing, and technology. Hence, this research has a limitation of identifying merely the determinant factors of business success qualitatively and the model used by the researcher has a slight power to explain the variables. Keil (2007) said that persistence and determination, experience, entrepreneurial personality, business knowledge, a great team and education are the determinant factors for micro and small enterprise success and growth. But this research has a basic limitation of identifying merely the determinant factors for MSEs success and growth. It doesn't show the relationship among the variables and how they are important for the success and growth of enterprises.

According to Dawoe (2006) in spite of the monetary, fiscal, regulatory and development policies, there has not been a significant transformation in the activities of micro enterprises from subsistence living to small or medium scale enterprises for job and wealth creation which are essential for poverty reduction and sustainable development. In Ethiopia, most enterprises failed to transform from micro level to small level, small

level to medium level and from medium level to large scale enterprise because of different factors.

In Ethiopia most, studies simply identifies the problems for the growth and expansion of MSEs. They didn't show the relationship between growth and the explanatory variables that explained growth and expansion. A study conducted by Solomon (2004) and Mulu (2007) reveals the determinant factors for the growth of MSE. They simply correlate the growth of a firm as the growth in employment explained by sex, education, experience, age of the firm, size of the firm, capital of the firm, availability of the firm, premise availability, training availability, diversification of the firm, availability of promotional facilities, and infrastructure facility. The biggest limitation of the study is that it doesn't show the factors origin whether it is from the owner or the firm or other origins.

In turn, the main contribution of this study was to identify the determinant factors for MSE transformation in to medium level. Because most enterprise can successfully transformed while others are failed to transformed to medium industry. Identifying the factors that are important for the transformation of MSE may used as an input for policy makers and a lesson for those enterprises that are failed to transform in to medium industry. This gives a new insight of identifying the possible factors and how they influence the transformation of the enterprises. This makes the study differs from other research studies.

## II. OBJECTIVE OF THE STUDY

The main objective of the study was to identify the determinant factors of MSE transformation in to medium level industry in Addis Ababa city administration. The specific objectives of the study have:

- To describe the entrepreneurial and enterprise characteristics that determines transformation of MSE in to medium level industry.
- To identify the possible determinant factors for the transformation of MSE in to medium level industry.
- To analyze the way in which dependent variables are related with independent variables.
- To identify the lessons learnt from the transformed MSE's and to give recommendations for the successful implementation and transformation of MSE's.

### III. LITERATURE REVIEW

#### 3.1 Characteristics of MSE in Ethiopia

Like other developing countries, in Ethiopia MSE are informal sectors are the main source of employment and income for vast number of people Solomon (2004). Many authors argued that the largest private sector constitutes the MSE and the medium industries and created the largest number of employment in the country Mulu (2007) and Rahael (2010). The government of Ethiopia also gives greater emphasis for the development of MSE in its strategy and policy formulation. In developing countries, the informal sector is a large source of employment and income, particularly for the urban population. The informal employment, outside of agriculture, is defined as employment that comprises of both self-employment, in the informal enterprises, and wage employment, in the informal jobs, without secure contracts, worker benefits, or social protection and represents nearly half or more of the total non-agricultural

employment in all regions of the developing world. In Ethiopia, about half of the urban workforce is engaged in the informal sector and Addis Ababa nearly accounts for about 40% of the total operators in micro enterprise activities (Rahael, 2010).

According to the 2003 CSA small scale manufacturing survey, over 89% of the informal sector operators are concentrated in manufacturing, trade, hotel and restaurant activities. Of the small scale manufacturing industries 85% are engaged in the manufacture of food, fabricated metal furniture and old traditional cloths. The survey also revealed that the number of people earning their livelihood from the informal sector activities and small scale manufacturing industries is eight times larger than those engaged in the medium and large scale industrial establishments. According to the FMSEDA (2010) the MSE sector is characterized by highly diversified activities which can create job opportunities for a substantial segment of the population. This indicates that it is a quick remedy for unemployment problem. To curb unemployment and facilitate the environment for new job seekers and self-employment a direct intervention and support of the government is crucial. Hence, in order to channel the support facilities to this diversified sector, a definition is needed to categorize the sector accordingly.

The MSE sector in Ethiopia appears to be fraught with a number of constraints that stifle its rapid growth and development as a means of overcoming poverty and unemployment (Zewde, 2002). According to Zewde, the main constraints that face MSE include inadequate empirical research on MSEs, limited responses by financial institutions to MSEs, lack of appropriate technology and related facilities, lack of strong organizations for entrepreneurs, lack of co-ordination among Business Development Service (BDS) providers,

lack of access to land and premises, and lack of market access and market information. The Ethiopian government also identifies major constraining factors of the sector (MOTI, 1997). These include: inadequate marketing and production space; facilities, backward production technology; lack of innovation; marketing problems; lack of information; poor input quality; absence of intra and inter enterprises networks; and lack of financial capital. Similarly Solomon (2004) identified the major constraints faced by small enterprises includes demand problems, paucity of capital, equipment and technology, human and material inputs, rules and regulations and institutional bottle necks.

Addis Ababa, the capital city, is the most populated urban city in the country confronted by MSEs sectors. Increasing population size due to natural growth and high rural-urban migration makes MSEs more significant. The 2007 Census result has revealed that 2,738,248 people were living in the city, of which 52.3% were women. The residents of Addis Ababa account 23% of all urban dwellers of the country (Federal Democratic Republic of Ethiopia Population Census Commission, 2008).

### ***3.2 Transformation and Constraints of MSE in Ethiopia***

MSEs in Ethiopia graduate from one size category to another during their lifetimes. In the process of graduation, a significant proportion of enterprises start very small graduates to larger size categories. Further, founders of MSEs seem better able to nurture their enterprises into graduation than secondary owners who acquire businesses through either inheritance or purchase. At the same time, female-owned firms perform relatively badly with respect to graduation as do male owned firms. Owners/managers gender therefore influences the

graduation prospects. The graduation is not lifecycle in nature, since young firms are just as likely to graduate as old ones. Management arrangements also count, with the owner-manager management mode common among MSEs seemingly undermining the graduation process. Formalization of enterprises, however, seems to tip the balance in the direction of graduation.

The government of Ethiopia under the FeMSEDA (2010) support package classifies the micro and small enterprises stages of development as startup, growth and maturity. This transformation includes from start up to growth, from growth to maturity and from maturity to medium industry. According to the policy start up means individuals that has an interest to establish MSEs and that have the required skills and training individually and in group by their own saving or borrowing funds to start business. It is a stage where an enterprise takes a legal entity. Growth stage is a stage where an enterprise using the support given and become competitive in the market. It has an increase in the number of employees and must use accounting records. Maturity stage is a stage that uses the support and become competitive in the market or transform to medium industry. Medium enterprise is an enterprise that fulfills the requirement (capital and employment) set for a company and transform from maturity to medium enterprise.

According to Dawoe (2006) in spite of the monetary, fiscal, regulatory and development policies, there has not been a significant transformation in the activities of micro enterprises from subsistence living to small or medium scale enterprises for job and wealth creation which are essential for poverty reduction and sustainable development. In most developing countries, small businesses face a wider range of constraints and problems and they are unable to address the

problems they face on their own, even in effectively functioning market economies. The constraints relate, among others, to the legal and regulatory environments, access to markets, finance, business information, business premises (at affordable rent), the acquisition of skills and managerial expertise, access to appropriate technology, access to quality business infrastructure, and, in some cases discriminatory regulatory practices (FeMSEDA, 2010).

Dawoe (2006) also argues that MSEs are faced with a myriad of constraints and challenges which can be attributed to: insensitive macroeconomic and development policies, insensitive policies objectives of government intervention programmes on MSE to enhance the upgrading of such industries, lack of well-coordinated science and technology policy, limited human resource development policies (HRD), lack of or limited governance policies at both MFI and micro finance clients (MFC) levels, lack of or inadequate operational policies at both MFI and MFC levels to enhance the credit facilities and eligibility criteria of MFI clients, lack of policy or its focus on technology as an essential tool for poverty, ineffective strategic plans to enhance the growth of micro and small scale enterprises, poor linkage between stakeholders; micro or small enterprises, research and training, government and MFI, size and terms of loan do not promote the acquisition of technology, cumbersome legal and regulatory framework, competition with poor quality and cheap imports.

The same as that of Dawoe, in Ethiopia's situation, since there have not been any organized policy and support systems that cater for the sector, MSEs have been confronted by various problems which are of policy, structural and institutional in nature (FeMSEDA, 2010). To start with, lack of smooth

supply of raw materials and lack of working premises were the major bottlenecks for small scale manufacturing industries to commence their activities. On the other hand, lack of sufficient capital and working premises were the leading problems facing the informal sector operators from the start.

According to FeMSEDA (2010) among the constraints facing MSE in Ethiopia serious marketing problems, shortage of supply of raw materials, lack of working capital are the first and most pressing problems facing small manufacturing industries for not expanding their businesses and lack of capital, market and working premises are affecting informal sector operators not to expand their businesses. For instance, a result of the survey conducted by the CSA (1997) on urban informal sector activities showed that out of the 584,913 informal sector activity operators, about 50% replied that their first major difficulty when starting their operation was lack of sufficient initial capital. According to their responses, this problem has become more critical when they intend to expand their businesses and out of 2,731 small scale manufacturing industries covered by the survey, about 36% have replied that their first problem when starting their operation was lack of sufficient initial capital. The survey also argues there are still constraints related to infrastructure, credit, working premises, extension service, consultancy, information provision, prototype development, imbalance preferential treatment, and many others, which therefore need proper attention.

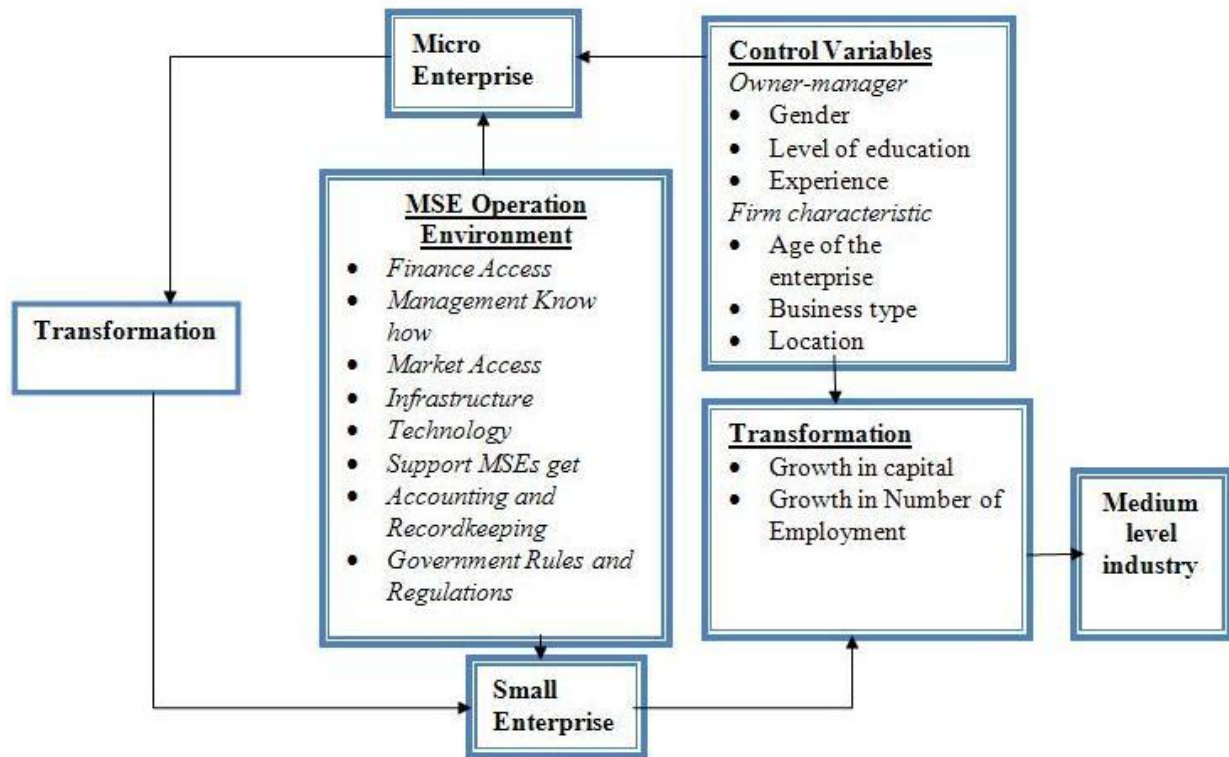
### ***3.3 Conceptual Framework***

There are many factors that contribute for the transformation of MSE in to medium level industry. According to (FeMSEDA, 2010), there are three type of transformation in MSEs of



Ethiopia. These are transformation from micro enterprise in to small enterprise, transformation from small enterprise in to medium level enterprise and transformation from medium scale industry in to large scale. In each case of transformation

enterprises face many challenges and have their own factors for the transformation of the enterprise. The conceptual framework for this study is based on the review of literature discussed above and compiled as follows:



#### IV. METHODS AND MATERIALS

This study employs an explanatory survey research study design following more of quantitative approach to examine the determinants of MSE transformation to medium level industry in Addis Ababa city administration. The numbers of enterprises to be questioned (sample size) were obtained, by determining from a total population of 241. Using Yamane's formula, there was a sample selection of 74 SMEs, comprising 24 constructions MSEs, 38 metals and wood MSEs and 3 food preparation MSEs, 4 textile and garment and 5 others.

In this study descriptive statistics were used as the first stage of data analysis. At this stage, mean,

standard deviation, maximum and minimum values of the required variables were computed. The study were also used the Pearson Product Moment Correlation method to show the relationship between independent variables (finance, management know-how, market access, infrastructure, technology, support MSE get, accounting and recordkeeping and government rules and regulations) and MSE transformation in to medium level industry(here after transformation) as a dependent variable.

##### 4.1 Description of Variables and Research Hypotheses

FeMSEDA (2010) considers transformation of MSE medium level industry on employment

generation and capital generation by the enterprises. Therefore, the researchers used growth in capital and growth in number of employees as a dependent variable to measure transformation.

1. **Growth in capital:** It is determined as the average of current and initial capital.
2. **Employment growth:** is the number of employees both permanent and temporarily employed by the enterprise. It also includes the family members and the owner working in the enterprise. AEGR were used in the study.

#### 4.2 Hypothesis of the Research

The following independent variables and hypotheses were proposed to increase our understanding of the determinant factors for the transformation of MSE owners in Addis Ababa city administration. These factors were determined by detailed reviewing the literatures and adjusting for the problems faced by MSE to transform in to medium level industry in Addis Ababa.

Ho: There is no significant relationship between finance access for MSE and MSE transformation.

Ho: There is no significant relationship between management know-how and MSE transformation.

Ho: There is no significant relationship between market access for their product and MSE transformation.

Ho: There is no significant relationship between poor infrastructure and MSE transformation.

Ho: There is no significant relationship between technology and MSE transformation.

Ho: there is no significant relationship between the support MSE get and MSE transformation.

Ho: there is no significant relationship between adequate accounting and record keeping and MSE transformation.

Ho: There is no significant relationship between government rules and regulations towards MSE and MSE transformation.

#### 4.4 Control Variables

The study also include two categories of control variables owner-managers' attributes (gender, owner's level of education and experience of the owner) and a firm's characteristics (age of the enterprise, industry type and location). These variables are expected to have an effect in one way or another on the transformation of MSE in to medium level industry. The study captures owner-managers' attributes using three indicators: gender, were measured as dummy one if a firm is owned by a male and zero if otherwise; dummy education of the owner (*EDU*) 1 if the owner completes senior education otherwise 0 and experience of the owner is expressed in terms of number of years.

To capture firm-level characteristics, the paper were utilized three variables: dummy location (*Loc*), were indicated as 1 for firms operating in medium location, near to the market, for near to raw material, near to infrastructure and zero for those operating elsewhere; age is a numeric variable and dummy industry (*Btype*) were indicated as one for firms in construction, metal and wood works, textile and garment, food preparation and zero for elsewhere.

#### 4.5 Model Specification

The following general econometric model was used to estimate quantitatively the transformation of MSE in to medium level industry in Addis Ababa city Administration.

$T_i = \beta_0 + \sum \beta_i X_i + \varepsilon_i$  Where:

- $T_i$  are the  $i$ th observation of dependent variables
- $\beta_0$  is the constant or intercept term
- $\beta_i$  are the coefficients of the  $X_i$  variables
- $X_i$  are the  $i$ th observation of the explanatory variables
- $\varepsilon_i$  is the error term of the models

$T_i$  is MSE transformation, measured by employment growth and capital growth and when the above general model is changed into the specified variables of this study, the regression equations were as follows to estimate transformation of MSE in to medium level industry:

$$TC(t') - (t) / \mu = \beta_0 + \beta_1 (FIN) + \beta_2 (MGMT) + \beta_3 (MKT) + \beta_4 (INF) + \beta_5 (TEC) + \beta_6 (SUP) + \beta_7 (BAK) + \beta_8 (GOV) + \beta_9 (Gen) + \beta_{10} (Edu) + \beta_{11} (Exp) + \beta_{12} (Age) + \beta_{13} (B typ) + \beta_{14} (Loc) + \varepsilon$$

..... (1)

$$EMP(t') - (t) / \mu = \beta_0 + \beta_1 (FIN) + \beta_2 (MGMT) + \beta_3 (MKT) + \beta_4 (INF) + \beta_5 (TEC) + \beta_6 (SUP) + \beta_7 (BAK) + \beta_8 (GOV) + \beta_9 (Gen) + \beta_{10} (Edu) + \beta_{11} (Exp) + \beta_{12} (Age) + \beta_{13} (Btyp) + \beta_{14} (Loc) + \varepsilon$$

..... (2)

**Where:**

$TC$ =Capital growth,  $FIN$ = Finance access,  $MGMT$ = Management Know-how,  $MKT$ =Market Access,  $INF$ =Infrastructure,  $TEC$ = Technology,  $SUP$ = Support MSEs get,  $BAK$ = Accounting and Record keeping,  $GOV$ =Government rules and Regulations,  $Edu$ =Level of owner's education,  $Exp$ = experience of the owner,  $Age$ = age of the owner,  $Btyp$ =Business type of the enterprise,  $Loc$ =Location of the business,  $EMP$ =Employment

growth,  $Gen$ =Gender of the owner,  $\varepsilon$  =the error term of the model.

## V. RESULTS AND DISCUSSION – tabulations for self exploratory and hypothesis testing

Simple descriptive statistics, correlation analysis and linear regression formed the major part of quantitative data analysis. Firstly, descriptive statistics were used to study the sample profile. The independent variables, control variables and two variables that used to measure the transformation of MSEs in to medium level industry were analyzed. Pearson correlation coefficients matrix was used to study the relationship between transformation indicator variables (average capital growth and average employment growth) and the independent variables and control variables of the study. Econometric analysis was then performed to see the relationship between transformation indicator variables (average growth in capital and average growth in employment) and the factors for MSEs transformation.

### 5.1 Characteristics of Business

24.3% (18) of the respondents surveyed are female and 75.7 % (56) of the MSE operators are males. This figure signifies that most of the respondents are men & this implies that men own most of the transformed MSEs in Addis Ababa City Administration. The age ranges of the transformed MSE owners/managers surveyed are: 18-34(51.4%), 35-45(32.4%), 45-60(14.9%), and above 60 (1.4%) years of old.

The educational levels of the MSE operators are; (1.4%) illiterate where as (12.2%) elementary school, (16.2%) junior school, (39.2%) senior secondary school, (31.1%) university level.



The mean experiences of the owners/managers are 10.5 years with range of 22 years. This figure clearly indicates that most of the transformed MSE owners/managers surveyed have enough experience in their business.

### 5.2 Characteristics of the Enterprises

The establishment of the transformed MSEs were: before the year 1994 E.C. (13.5%), from the year 1994-2000 E.C (50%), and from the year 2000 E.C (36.5%). This data clearly indicates that most of the transformed MSEs were established during the year 1997 E.C., which implies that the free market economic policy, create conducive atmosphere for the establishment & growth of MSEs. This is also a time that micro and small enterprise development agency established by the ministry of trade and industry to run the development and support of MSEs and preparing policies and strategies concerning to MSEs.

The industry sectors were: construction (33%), textile and garment (4%), food processing (4%), metal and wood works (52%) and others (7%). The above data clearly indicates that most of the transformed MSEs (60%) were engaged in construction and metal and wood works.

The transformed MSEs enterprises are located near to the market (20%), near to raw material (30%), near to infrastructure (30%), suitable locations (23%), inconvenient locations (10%). This clearly shows that most of the enterprises are located in suitable location that have access to market, access to infrastructure, access to raw materials and access to all of the above requirements for business operation.

In order to assess as to who establish the enterprise (91.9%) of the respondents responded that the enterprise was established by themselves while

(8.1%) of the respondents replied that the enterprise were established by others & this shows that most of the MSEs are established by the owners themselves.

The majority of enterprises were registered as sole proprietorship (44.6%) followed by cooperatives (21.6%), private limited companies (17.6%), partnership (14.9%) and corporations (1.4%). This clearly indicates that most of the transformed MSEs are established as a sole proprietorship.

Business owners/operators were asked the factors behind their motive to start their businesses. The evidence shows that the most important motive to start a business is the entrepreneur's desire to become independent. The majority of them (39.2%) respond that to realize a dream, (33.1) responded that they wanted to be their own boss, to realize a better financial position (13.6%), followed by to enjoy a better quality of life (10.8%), while 4.5% of them reported that they could not find suitable waged employment to become business operators. The findings indicate that the motivation for business start-ups as reported by entrepreneurs themselves is to become independent and autonomous and to realize their dream.

The source of initial capital for the MSE operators were: 6.8 percent gift from relative and friends, 4.1 percent support from government and NGOs, 12.2 percent credit from formal borrowing, 1.4 percent credit from equb, 63.5 percent from their own savings, 8.1 percent credit from informal borrowing and 2.7 percent selling personal properties. This implies that MSE operators have less access of credit from banks and micro finance institutions. The mean starting capital of the enterprises was Birr 79,164.86 with a range of Birr 650,000 and the mean current capital of the transformed MSEs has Birr 2,919,631.17 with a range of Birr 6,641,853.

To measure the transformation of micro and small enterprises in to medium level industry, average capital growth and average employment growth are used. These variables are summarized as follows: The mean value of average capital growth is about 41 percent and the standard deviation is 66.8 percent. The minimum value of average capital growth is 0.79 percent while the maximum value is 299 percent. The transformation of micro and small enterprises, on average, is 1.1 percent as measured by average employment growth. It deviates by 2.43 percent from the mean value. The minimum value of average employment growth is 0.1 percent while the maximum value is 20 percent. On the bases of standard deviation from the mean, average capital growth highly deviated than average employment growth.

Using the Pearson correlation, independent variables; finance access is significant at 1 percent level of confidence, management know-how is significant at 1 percent level of confidence, market access is significance at 1 percent level of confidence, poor infrastructure is significant at 10 percent level of confidence, technology is significant at 1 percent level of significance and accounting and recordkeeping are significantly correlated at 1 percent level with average capital growth respectively. Except poor infrastructure the other variables are correlated positively. However, support MSE get and government rules and regulations are correlated insignificantly. The control variables; age of the enterprise, gender of the owner/manager, level of education, industry type with food processing, and location near to raw material are correlated at 10 percent, 5 percent, 5 percent, 10 percent and 1 percent level of significance. Level of education and age of the enterprise are negatively correlated at 10 percent and 5 percent level of significance with average capital growth. As it is observed on the coefficients

values, gender and location near to infrastructure are weakly correlated at 19.4 percent and at -28.8 percent with average capital growth. But experience of the owner, location except near to raw-material and type of industry except the food processing are correlated insignificantly. As predicted by the Jovanovich model of firm growth, among this sample of surviving enterprises, younger firms grow faster. The relationship of average capital growth with respect to age of the enterprise is negative over our sample space. The negative sign of the coefficient for age of the enterprise is statistically significant at 10 percent significant level, indicating that in the case of our sample, growth decreases at an increasing rate with the age of the firm.

Using the Pearson correlation, independent variables; management know-how is significant at 5 percent level, market access is significant at 5 percent level, poor infrastructure is significant at 1 percent level, and accounting and recordkeeping are significantly correlated at 1 percent level of significance with average employment growth respectively. Except poor infrastructure the other variables are correlated positively. However finance access, technology, support MSE get, and government rules and regulations are correlated insignificantly. The control variables; experience the owner/manager and age of the enterprise are negatively correlated with average employment growth and industry type of food processing are positively correlated at 5 percent level of significant, age of the enterprise is correlated at 1 percent level of significant. As it is observed on the table coefficients values of experience of the owner/manager, age of the enterprise and food processing industry are correlated at -22.7 percent, -45.6 percent and 38.4 percent with average employment growth. But gender of the owner/manager, levels of education, and other type

of the business and location of the enterprise are correlated insignificantly. Here, as predicted by the Jovanovich model of firm growth, among this sample of surviving firms, younger firms grow faster. The relationship of average capital growth with respect to age of the enterprise is negative over our sample space. The negative sign of the coefficient for age of the enterprise is statistically significant at 10 percent significant level, indicating that in the case of our sample, growth decreases at an increasing rate with the age of the firm.

### 5.3 Determinant factors on the transformation of MSEs

To investigate more formally the relationship between determinant factors on MSEs transformation and to further investigate the effect of determinant factors on MSEs transformation (i.e., in order to test the research hypothesis of the study properly), two linear regression models were computed.

First, the data sets have been tested for normality tests (Residuals are assumed to be normally distributed). Based on the results stated in the appendix, p-values is insignificant for the two models that, the researchers failed to reject null hypothesis, which says the residual value is normally distributed. Therefore, there is no normality problem of the data set on the data used for this study. Second, test for heteroscedasticity is one of the important assumptions of the classical linear regression model. White's test for heteroscedasticity was used to test heteroscedasticity problem of the data sets. If the p-value is greater than the level of significance, the null hypothesis which says the error variance is homogeneous or constant is accepted otherwise it is rejected (Gujarati, 2004). As the results, both models have no heteroscedasticity problem. Since

the p-value is greater than the level of significance, the null hypothesis is accepted. Third, the data have no multicollinearity problem as shown above in the correlation analysis of the two models. All the above tests of basic classical linear regression model assumptions prove that, the results obtained from the two regression models in this study are accurate and free from bias. After the data set passes tests of basic classical linear regression model assumptions, the next step is analyzing and discussing the outputs of the multiple regressions.

The explanatory power of the variables used in the two models, from the R-squared values is equal to 53.8 percent and 46.9 percent for average capital growth and average employment growth respectively. This implies that 53.4 percent of the changes in average capital growth and 46.9 percent of the changes in average employment growth are successfully explained by the variables used in the two models of this study. However, the remaining 46.2 percent of the changes in average capital growth and 53.1 percent of the changes in average employment growth are caused by other factors that are not included in the models of this study. These results indicate the overall goodness-of-fit of the models used in this study.

Finance access has coefficient estimates of 0.452, and 0.098 with average capital growth and average employment growth. It is statistically significant at 1 percent level of significance for average capital growth and statistically insignificant for average employment growth. Therefore, the outcome of this variable is in line with the proposed alternative hypothesis. Thus, there is a significant positive relationship between finance access and MSEs transformation.

The relationship between management know-how and both the two transformation measures is

positive. Management know-how explains the transformation of MSEs with a coefficient 0.268 and 0.170 and it is statistically significant at 5 percent levels of significance for average capital growth and insignificance for average employment growth respectively. Therefore, the outcome of this variable is in line with the proposed alternative hypothesis. Thus, there is a significant positive relationship between management know-how of owners/managers and MSEs transformation in to medium level industry.

Market access has statistically significant at 10 percent level of significance for average capital growth and statistically insignificant for average employment growth. Therefore, the outcome of this variable is in line with the proposed alternative hypothesis. Thus, there is a significant positive relationship between market access and MSEs transformation.

The relationship between poor infrastructure and the two transformation measures is statistically insignificant for average capital growth and significant for average employment growth at 10 percent significant level. Poor infrastructure has negatively related with MSEs transformation significantly. Therefore, the outcome of this variable is in line with the proposed alternative hypothesis. Thus, there is a significant negative relationship between poor infrastructure and MSEs transformation.

Technology has a coefficient estimates of 0.065, and 0.097, it is statistically insignificant for both average capital growth and average employment growth. Therefore, the outcome of this variable is in line with the proposed null hypothesis. Thus, there is no significant positive relationship between technology access and MSEs transformation.

The support MSE get has coefficient estimates of 0.369 and -0.234; it is statistically significant at 5 percent level of significance for average capital growth and statistically insignificant for average employment growth. Therefore, the outcome of this variable is in line with the proposed alternative hypothesis. Thus, there is a significant positive relationship between the support MSEs get and MSEs transformation.

The relationship between accounting and recordkeeping and the two transformation measures is statistically significant for average capital growth at 5 percent level and statistically insignificant for average employment growth. Accounting and recordkeeping has positively and significantly related with average employment growth. Therefore, the outcome of this variable is in line with the proposed alternative hypothesis. Thus, there is a significant relationship between accounting and recordkeeping and MSEs transformation.

The relationship between government rules and regulations and the two transformation measures is not statistically significant. This means that government rules and regulations have no predicative capability in the presence of other independent variables. Therefore, the outcome of this variable is not in line with the proposed alternate hypothesis. Thus, there is no significant relationship between government rules and regulations and MSEs transformations.

In general, in this study both correlation coefficient results of all the independent and control variables do not have the same sign for both the two transformation indicators and in the regression results the significant and the way of relationship of all independent and control variables do not have the same result for both the two transformation

indicators. This is because transformations indicators are not equally indicate the transformations of MSEs in to medium level industry, because transformation indicators used different values with their limitations to indicate the ability of MSEs transformation in to medium level industry.

## VI. CONCLUSIONS

The descriptive statistics reveal that majority of the source finance for their business is their own source. It is difficult to borrow money from banks because they lack collateral. On the other hand, the loans provided by micro-finance institutions are small, with short repayment periods and high interest rates. The government support in terms of finance is very low compared to other source of financing.

The study also reveals that finance access for micro and small enterprises, management know-how in business, and market access are among the determinant factors for MSEs transformation in to medium level industry. Market access for the enterprises include high demand for products produced, availability of raw materials, good market linkage in the city, searching for new market for products are not so difficult, good opportunity to participate in exhibitions, bazaars, and markets and access to information on market/consumer of the products. The analysis also includes a significant negative relationship between poor infrastructure and MSEs transformations.

The study also identifies a strong relationship between the support MSEs get from the government, friends, NGOS, their families and relatives and MSEs transformation indicator variables, accounting and record keeping with MSEs transformation indicator variables. But there is no a significant relationship between government

rules and regulations and MSEs transformation indicator variables.

## VII. RECOMMENDATIONS

The government should help MSEs in easily accessing their financial needs. Business owners should source cheap, low-interest loans from banks and other financial institutions, borrow from friends and relatives with the intent to repay the money, negotiate advance payments from customers, low tender prices, and flexible credit terms from suppliers and seek loans from micro-financing organizations.

Government and policy makers to prepare management workshops and seminars that can be organized by chambers of commerce, non-government organizations (NGOs), universities, and other nonprofit organizations to train MSEs owners/managers about leadership, planning, organizing, communication skills, personal and financial management, basic accounting, marketing strategies, and recordkeeping. Business owners should network and seek advice from experienced entrepreneurs in MSES.

The government and other concerned bodies should help micro and small enterprises in searching market for their products through different means both inside and outside the country. They can also create a link between large industries and micro and small enterprises. This is because the finding of this study revealed that market access for their product is positively related with the transformation of micro and small enterprises in to medium level industry.

Government should take the necessary action to build and maintain infrastructures like reliable power supply, reliable telecommunication and internet connection, enough water supply, good



road facilities, adequate business and industrial premises (shops, offices, factories, market stands, etc.) and adequate drainage and cleaning facilities. This is in line with what currently the government of Ethiopia is doing.

Government and other concerned bodies to have a training that can support all MSEs, like book-keeping mechanisms that record financial and non-financial matters, a Contract administration policy training, financial management mechanisms, cash-flow management systems, financial control mechanisms, contract document interpretation mechanisms.

Government policies and strategies towards micro and small enterprises is the key to micro and small enterprises. Right policies considering the above factors can alleviate the massive failures of micro and small enterprises in Ethiopia. Government should continue their effort towards the expansion and development of micro and small enterprises. This findings support the government policies towards micro and small enterprises in creating employment opportunities and supporting large enterprises in the country.

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