Economic Roles and Constraints of Micro and Small Enterprises in Ethiopia: Case from Wolkite Town

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Abstract- This study investigates the socio-economic impacts and determinants of micro and small enterprises (MSE) using 100 samples of MSEs in Wolkite town. The majority of enterprises in the surveyed town are MSE and large numbers of the residents made their livelihood through micro and small enterprise. The finding of the study reveals that MSEs have socio-economic impacts such as employment opportunity and income generation. In terms of sector, manufacturing creates more job opportunity than service and trade sector. In terms of ownership type, sole proprietorship types of business employ more people than cooperative business which is because most business in the surveyed town is owned by individual's entrepreneurship. However, these enterprises are adversely constrained by business formality, business training, limited finance access and lack of market. Since MSE are diverse by their nature, their socio-economic impact and the constraint they do face also varies accordingly. Therefore, policies and support programs that promotes for the growth of MSEs should consider these aspects of divergences.

Index Terms- micro and small enterprise, economic roles, constraints, Wolkite town, Ethiopia

I. INTRODUCTION

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

In the majority of fast developing countries, micro and small enterprises by virtue of their size, location, capital investment and their potential to generate greater employment have proved to have crucial effect for rapid economic growth. Furthermore, the sector also doesn't require high level training, much capital and sophisticated technology. More importantly, MSE creates job opportunities for a substantial segment of the population.

However, most MSE face critical constraints at the start up and operation level. Among some of the constraints, included are lack of access to finance, lack of access to premise or land, lack of infrastructure, lack of entrepreneurial and managerial skills, lack of information on business opportunities, social and cultural facts and excessive corruption (Commission for Legal Empowerment of the Poor, 2006).

Like many other developing country, Ethiopia is a country which have many number of MSE that can absorb a lion share of the labour force and add up to the GDP of the country. While the importance of large industries and enterprise for the growth of Ethiopian economy can not be denied, there is ample evidence that the labour absorptive capacity of the Micro and small enterprise sector is very high, the average capital cost per job created is lower than big business and its role in technical and other motivation activities is vital for many of the challenges facing the country. According to the 1996 survey by CSA, the whole labour force engaged in MSE is more than eight fold (739, 898) to that of the medium and large scale manufacturing industries (90, 213 people) (Ministry of Trade and Industry, 1997).

By understanding the relevance of MSE, the Ethiopian government has recognized and paid due attention to the promotion and development of MSE sectors for they are important vehicles to address the challenge of unemployment, economic growth and equity in the country. For achieving these objectives, the government of Ethiopia has formulated a national MSE strategy in 1997 and revised the strategy in 2012 which emphasis on to alleviate the problems and promote the growth of MSE sector (Ministry of Trade and Industry, 1997: Ministry of Urban Development and Housing, 2016).

In order to fill the gap of knowledge on the existing literature on MSE of Ethiopia, this paper examines the socio-economic attributes of MSE and their constraints. The objective of this study is to investigate the major socio-economic impacts and constraints of micro and small enterprises using a new survey.

II. MATERIALS AND METHODS

1. Description of the study area

Wolkite town (the case study area for this paper) is found in southern part of Ethiopia in the region of southern nation and nationalities of people republic (SNNPR). The town comprised of the total population of 39,854 from this figure 19,641 are males and 20,213 are female. The town is the capital city of gurage zone and located 158 kilo meters from Addis Ababa (south of Addis

Ababa). Furthermore, the town is divided into two sub-city such as Addis ketema sub-city and Bekur sub-city.

The majority of the residents of the town are engaged in micro and small enterprise. In terms of ownership types, micro and small enterprise of Wolkite town can be classified as sole proprietorship and cooperatives. The sole proprietor types of micro and small enterprises are self-operated or two or more paid labourers and/or non-paid family members. The majority of MSEs of Wolkite town are the sole proprietor types.

The cooperative enterprises are established by a group of 5 to 10 or sometimes more people. The establishment of these types of enterprises are supported and their working conditions are facilitated (access to credit service, access to land, etc) by Wolkite town micro and small enterprise agency in collaboration with other government organs in Wolkite town such as Omo micro finance, integrated housing development project office, the municipality and other responsible government organs. The three major sectors operated by sole proprietors and cooperative types of MSE are trade, service and manufacturing. 1) trade include: sales of all goods, local drinks, construction materials, clothes and shoes, music or video, electronic equipment, vegetables and fruits, drug store, stationary and general food items, 2) service include: barber and beauty salon, bicycle rent and repair, bar/restaurants and hotels and 3) manufacturing include: bakery, tailor, the production of brocket and precast beam, grain mill and wood and metal work.

2. Data collection procedure and samples

The data used for this study is obtained through a structured questionnaire surveyed by the Author from Wolkite town in January 2009. The total sample of the survey is 100 MSE (80 sole proprietorship and 20 cooperatives) among the different categories of MSE. In identifying the sample, stratified sample selection procedure is utilized in order to have representative sample. In order to investigate the necessary information and evidence, detailed questionnaires are structured. The designed questionnaire is wide and includes questions related to individual owner's related factors (owner's age, marital status, gender, experience, training etc) and firm related factors (employment opportunity, income generation, age and size of business, access to finance, marketing, business location, the type of sector, etc).

3. Method

Descriptive statistics and econometrics methods were implemented for the purpose of this study. The descriptive statistics was applied to explore the socio-economic contribution of MSE. On the other hand, econometrics model was estimated to identify the main determinants of MSE.

Model estimation

Econometrics model is applied for identifying the different constraints of MSE. Following Evans (1987) the firm growth equation that relates firm growth to its initial size, age and other control variables can be specified as:

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

Where:

S_t: Represents firm's current size, S_{to}: Represent firm's initial size, A: Represent firm's age

X: Represent other control variable, U: Represents the normally distributed error term with mean zero and a non-constant variance.

By incorporating the specific control variables in to equation (1), the firm growth equation estimated for this study is respecified as: Annual employment

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

Where:

S_t: Current (survey time) size of the firm in terms of employment number, S_{to}: Initial size of the firm in terms of employment number, A: Age of the business (firm) in years, transformed in to logarithmic form, Li: Have license (the dummy takes 1 if it has license and 0 other wise), Pre: Previous experience of the owner by months, in logarithmic form, Educ: Education level of the owner (the dummy takes 1 if literate and 0 if illiterate), Bus: Business training of the owner (the dummy takes 1 if trained & 0 otherwise), Male: Owner male (the dummy takes 1 if the owner is male & 0 if it is female), married: Owner married (1 if the owner is married & 0 if it is not married), Age: Age of the owner in years, transformed in to logarithmic form, FC: Formal credit (the dummy takes 1), IC: Informal credit (the dummy takes 1), Sec: Sector (1 if the firm is on manufacturing and service sector and 0 if on trade), Mkt: Market area of the business (the dummy takes 1 if the firm located in traditional market area and 0 other wise)

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

The firm age is measured in years from the birth of the firm to the time of the survey. Apart from firm's initial size and age, other six major variables that might have some impact on the growth of the firm are considered. These are formality of the firm, human capital, demographic factor, access to finance, sector and market location. The summary statistics of these variables are depicted on Table 1.

The firm is said to be formal if it has business license, the dummy business license takes 1 if the business has license and 0 otherwise. Human capital can be expressed in terms of owner's previous experience, education status and business training. Owner's previous experience measured in months and transformed in to logarithmic form. Education status of owners estimated by illiterate as reference and if the owner is educated the

dummy takes 1 and 0 if the owner is illiterate. Business training measured by the dummy 1 if the owner of the business trained and 0 otherwise (if it is not trained).

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

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

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

Table 1: Summary statistics of the main variables in the estimated model

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

Source: Field survey

III. RESULTS AND DISCUSSIONS

1. The socio-economic contributions of micro and small enterprise

This study assessed the socio-economic contribution of MSE based on the potential to create employment opportunity and income generation.

Employment opportunity created by micro and small enterprise

As evidenced in Table 2 trade, manufacturing and service sector generates 26%, 46% and 29% of employment opportunity, respectively. Manufacturing sector absorbs the highest share (46%) of the labour force which partly because the nature of the activity of manufacturing sector invites more labour force than trade and service sector. Interms of gender, the number of male (68%) higher than female (32%) (for the sake of saving space the data not reported here) and hence MSE creates more job opportunity for male than female.

Table 2: Employment opportunity by the type of sector and by gender (%)

Sectors	Male	female	Total
Trade	21	36	26
Manufacturing	57	21	46
Service	22	43	29
Total	100	100	100

Source: Field survey

From the surveyed sample, sole proprietorship and cooperative types of ownership is found. Sole proprietorship types of business employ more people (58%) than cooperative business (42%) (Table 3). That is why most business in the surveyed town (Wolkite town) is owned by an individual (which is sole proprietorship).

Table 3: Employment opportunity by the types of ownership (%)

Business ownership	Employment opportunity
Sole proprietorship	58
Cooperative	42
Total	100

Source: Field survey

The growth rate of employment opportunity can be observed by differentiating the timing of employment into employment at the start of the business and employment during the survey time in each respective sector. Table 4 shows the employment growth rate in trade (19%), in manufacturing (9%) and in service (6%). On aggregate, employment opportunity grows

by 10.2% growth rate. Furthermore, the growth rate of employment in trade (19%) is higher than the rest sector which is partly because the trade sector has fewer barriers to enter and the most widely experienced activity in the surveyed town.

Table 4: Employment opportunity by the types of business ownership (%)

	Employment opportunity by sector			Total
	Trade	Manufacturing	Service	
Growth rate	19	9	6	10.2

Source: Field survey

As Table 5 reveals the growth rate of employment opportunity can also be analyzed by the type of ownership. Accordingly, the sole proprietorship employment opportunity growth by 55%. On the other hand the cooperative employment opportunity declined by 21%. On aggregate, employment opportunity grows by 10.2% growth rate. The main reason for the decline in the number of employment in cooperatives types of business are the conflict among the members, lack of market access, shortage of raw materials, lack of managerial know how (skill), etc.

Table 5: Growth rate of employment opportunity by business ownership type (%)

	Employment by ownership type		Total
	Sole proprietorship	Cooperative	
Growth rate	55	-21	10.2

Source: Field survey

Income generated by micro and small enterprise

As evidenced in Table 6 sectors varies in their income generation capacity. Trade, manufacturing and service sector on average generates 2,221.5 birr, 2,071 birr and 920 birr per month, respectively. Trade sector generates the highest income per month and the service sector generates the lowest income. These differences arises due to most citizens of the surveyed town relies their livelihood on trading activities.

Table 6: Average income generated by sector per month in birr

Sector	Income earned
Trade	2221.5
Manufacturing	2071
Service	920

Source: Field survey

There is also the difference in income generation capacity in terms of ownership type. As shown in Table 7 sole proprietorship on average generates 3,697 birr income per month while that of cooperatives generates 1,515.5 birr and hence sole proprietorship generates the highest income which is twice the income generated by the cooperatives. This variation originates once again because the majority of the business owned by individuals (sole proprietorship).

Table 7: Average income generated by business ownership per month in birr

Business ownership	Income earned
Sole proprietorship	3,697
Cooperatives	1,515.5

Source: Field survey

2. **Determinants of micro and small enterprises**

Table 8 reports the determinants of micro and small enterprises in Wolkite town. The model is estimated with robust standard error in order to avoid the problem of heteroscedasticity. The value of goodness-of-fit of the model as shown by pseudo R2 is 0.16. In order to verify the validity of the estimated model, statistical t-test is conducted (the sign ** shows a 5% significance level).

Table 8: Determinants of micro and small enterprises

Variables	Coefficients	Robust standard error	T-ratio	P-value
ln(initial size)	-0.057	0.113	-0.51	0.614
ln(age of business)	0.019	0.227	0.09	0.932
Have business license	0.022	0.306	0.07	0.943
ln(previous experience)	0.060*	0.026	2.30	0.024
Education level of owner	-0.094	0.127	-0.74	0.462
Business training of owner	0.201	0.497	0.40	0.687
Male owned business	0.388	0.344	1.13	0.263
Owner married	0.223	0.227	0.99	0.327
ln(owner age)	-0.362	0.166	-2.17	0.033
Have formal credit access	-0.252	0.349	-0.72	0.471
Have informal credit access	0.220	0.459	0.48	0.033
Sector	0.099	0.135	0.73	0.467
Market area	0.199	0.174	1.15	0.254

R-squared = 0.16   *represent 5% level of significance

Source: Model estimation results

The following paragraph presents the discussion and interpretation of the influence of each explanatory variable in the estimated model:

Initial size and age of the firm

Initial size of the firm negatively affects firm growth but age of the business affects firm growth positively. Unlike other studies both are insignificant. The negative relationship between initial size and firm growth describes smaller firms grow faster than large firms which is consistence with previous case studies by Evans (1987), Liedholm (2001) and Gebreeyesus (2007). The positive relationship between firm age and firm growth shows the younger firm grows slower than the older one which is in contrast with similar previous case studies by Evans (1987), Liedholm (2001) and Gebreeyesus (2007).

Business formality

Formality of the business estimated by whether the business have license or not. There is a positive relationship between business formality (have license) and firm growth. Formal firms grow faster than informal ones. This is partly because formal firms(since they have legal document) have the better chance to engage on government programs such as public procurement, training, business development service and bank loans (Gebreeyesus, 2007). On the other hand informal enterprises face greater difficulties in obtaining formal credit and assistance from law enforcement agencies and courts. Furthermore such positive relationship is consistence with the previous studies by Nichter & Goldmark (2009) and Gebreeyesus (2007).

Experience

The previous experience of the owner has positive impact on firm growth and found to be significant. The business owner who has previous business experience can grow faster than owners with out previous experience which is also consistence with Nichter & Goldmark (2009) and Gebreeyesus (2007). Therefore, the government should give consultancy and other supports for MSEs to have some business experience before starting the operation of business.

Education

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

(2009) and Gebreeyesus (2007) indicate education level of the owner has mixed impact on the growth of the firm.

Business training

Business training positively affects the growth of MSE. This indicates MSE with business training can grow faster than MSE without such trainings. Specifically, business owners with access to business training have better managerial and entrepreneurial skills and their business become more successful and hence getting grown.

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

Gender can influence the growth of the firm. Male owned firm and married owners positively affects the growth of the firm. Male headed firms grow faster than female headed firm but it is found to be insignificant. Furthermore, the descriptive part of the data also shows MSE creates more employment level (estimator of size in this study) for male than female. The existence of this difference partly because women apart from business activity, they are also busy at domestic activity (such as rearing children and carrying family) than male. This outcome is consistence with the study by Liedholm (2001), Gebreeyesus (2007) and Nichter & Goldmark (2009). On the other hand, owner age affects firm growth negatively

Access to finance

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

Type of sector

The type of sector on which MSE engaged in can affect the growth of firms. MSE engaged in service and manufacturing sector grow relatively faster than those engaged in trade sector and found to be significant which is consistence with the descriptive part of this study where manufacturing and service sector creates more employment level than the trade sector. Furthermore, this empirical result is consistence with the studies by Liedholm (2001), Gebreeyesus (2007) and Nichter & Goldmark (2009).

Location of the firm

The location of the firm can explain the growth of the firm. In this study the firm located at traditional market (road side and commercial district) positively affects the growth of the firm. The MSE located in traditional market area grows faster than MSE that located in non-traditional market area which is consistence with the studies by Liedholm (2001) and Gebreeyesus (2007).

IV. CONCLUSION

In this paper the socio-economic contributions and determinants of MSE analysed by using the survey of 100 samples in Wolkite town. MSE has socio-economic contributions such as employment opportunity and income generation. In terms of sector, manufacturing creates more job opportunity than service and trade sector. In terms of ownership type, sole proprietorship types of business employ more people than cooperative business which is because most business in the surveyed town is owned by individuals.

The growth rate of employment opportunity in trade sector is higher than manufacturing and service sector. On the other hand, the growth rate of employment in sole proprietorship business increases by 55% and that of cooperatives declined by 21%. The main reason for the decline of employment in cooperatives business are the conflict among the members, lack of market access, shortage of raw materials, lack of managerial skill, etc. In order to alleviate some of the constraints, training should be provided on book keeping and accounting systems, entrepreneurship and managerial skill development. MSE also have the potential to generate income, income generated by trade sector relatively higher than manufacturing and service. This difference arises due to the fact that most residence of the surveyed town relies on trading activities.

Even though MSEs have socio-economic contribution, there are some impediments that potentially affect the growth of MSE. Among some of the determinants are size and age of the firm, formality/informality of the business, business experience, education, business training and access to finance and the market location of the firm. Improving the regulatory environment could increase the number of firms operating formally, and in turn help enterprises to grow fast. Since there is no commercial business center in Wolkite town, the government should build business center at the different location of the town so as to partially avoid the problem of market access. Since MSEs are diverse in terms of sectors and ownership types, they faces different kinds of constraints, for instance, MSE at start up stage may require working capital while MSE already in existence may require business training. Therefore, MSE at the different sector and ownership types requires various forms of assistance.

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