Factors Influencing Growth of Micro and Small Enterprises: case of Ambo, Bako, Gedo and Ginchi Towns Oromia, Ethiopia; Logistic Regression Analysis

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Abstract

As part of the industrial sector, micro and small enterprises (MSEs) are increasingly becoming popular and important in the Ethiopian economy as they would play a decisive role in contributing to employment generation, poverty reduction and the opening of wider distribution of wealth and opportunities. The main objective of the study was to identify factors that influence growth of micro and small enterprise in Ambo, Bako, Gedo and Ginchi towns. These towns were selected from West Shoa Zone towns depending on greatly inhabited enterprises. Thus, a sample of 294 micro and small enterprises was determined and proportionally allocated to each area or town. A systematic sampling technique was used to select a list of micro and small enterprises from each category that formed representative sample. Data were collected using questionnaire then SPSS software employed to analyze. The study employed Chi-square technique to test associations between dependent and explanatory variables. We have implemented logistic regression to evaluating the probability of growth of MSEs. The descriptive analysis revealed from a total of 309 enterprises 105 (34%) were found to be growing while the remaining 204 (66%) did not. Logistic regression model result indicated that among the variables sex, marital status, age, educational attainment of the manager/owner, prior experience of the manager/owner, access to credit and training, major activity (sectors), accesses to market linkage, infrastructures were selected as predictive variables. MSEs whose manager /owner attained high education and training, more experienced prior, those engaged in manufacturing and construction sectors, who had get more accesses to credit, market linkage and adequate infrastructures were performed better growth. Hence, concerned government officials, and other economic development players have to work in hand in the area of training, availability of finance, and formation and business sectors of MSEs in the country.

Key words: Growth, Micro and small enterprises, logistic regression model, West Shoa Zone

Introduction

Micro and small enterprise (MSE) is recognized as an integral component of economic development and a crucial element in the effort to lift countries out of poverty (Wolfenson, 2007). In many developing countries, including Ethiopia, the micro and small enterprise development programs (MSED) are viewed as a key policy strategy to embrace the sector. International labour organization (ILO, 2002) argues for MSE development from a decent-work agenda point of view. It pursues MSE development and delivers support to these countries.

According to MSEs development strategy of Ethiopia designed to ensure the sustainability of the development achieved in all economic sectors of the country, the main focus of the government is creating job opportunities through MSEs development, to reducing unemployment and alleviate poverty and enhancing MSEs to be base for industrial development in the country (FDRE, 2011). The sector is crucially important to the economic and social development of the country in the sense that it generates broader job opportunities and assist to alleviate poverty and facilitates rural and urban economic linkage and boost the economy as well as promotes entrepreneurship culture and enhance self-employment and serves as fertile ground for the emerging of medium and large industries, etc.

In its commitment to the socio-economic development of the country, the government of Ethiopia has given greater focus for the development of the MSEs sector. In order to

realize this, the government of Ethiopia has designed the first MSEs development strategy in 1997. This strategy was intended to create coherence with the other economic sectors and outline duties and responsibilities of all the stakeholders at all level (from Federal to Kebele level) (FMSEDA, 2014).

Ethiopia's situation, as result of research conducted in previous time indicate, most of MSEs have been confronted by many problems like lack of access to finance, lack of business and working premises (Endalkachew, 2008), lack of market for their products (Eshetu and Mammo, 2009), lack of skills and managerial expertise, lack of qualified employees, infrastructure, information and appropriate technology. In addition there are also personal attitudes or internal factors that affect the performance of MSE, which are related to the person's individual attitude, training and technical know-how (Werotew, 2010).

These problems result in failure of businesses and have the effect of preventing their expansion almost from the beginning of their operations (Gebrehiwot and Walday, 2006). According to Zeleke (2009) lack of integration between the vocational curriculum taught at academic institutions and skills required at the workplace in small businesses and enterprises is alsoa major obstacle to the growth and development of MSEs. Similarly, Mulu (2007) found that the average annual growth of the surveyed six major towns in Ethiopia and 69% of these MSEs did not growth due to the problems of inadequate formal source of credit and informal network. In addition, some studies reported that most MSEs have no growth and remain at their initial level due to different internal (owner's/operator's related and/or firm's related) and external factors (Admasu, 2012). The fact that the majority of firms are micro and small shows that established firms find it difficult to grow to the next higher level due to lack of an enabling environment for sustained growth.

Hence, the main objective of study is to identify factors that influence growth of micro and small enterprise in West Shoa's four towns.

Materials and methods

Description of the study area and research design

The capital town of West Shoa Zone is Ambo around 114 km from the capital city of Addis Ababa. West Shoa Zone has nineteen administrative Woredas. And towns Ambo, Bako, Gedo and Ginchi are capital towns of Ambo Woreda, Bako-Tibe, Cheliya and Dendi Woreda, respectively. The population of study includes all micro and small enterprises operators operating in Ambo, Bako, Gedo and Ginchi towns that are located in West Shoa Zone. These towns were purposively selected since micro and small enterprises were relatively speaking, densely populated in those towns than other towns in the Zone.

The study utilized cross-sectional in the logic that all relevant data were collected at a single point in time. The primary instrument used for gathering data for the study was the questionnaire. The questionnaire were designed in open and close ended patterns and administered directly on the operators of the micro and small enterprises directly.

Sample size and sampling techniques

Four towns were selected as samples of population by convenience sampling method. These were: Ambo, Bako, Gedo and Ginchi. List of the registered of MSEs were obtained from administration of MSEs sector. The owners/ managers were considered as responsible for regards financing and management of the enterprises. A total number of all MSEs within the towns were being taken which is established before three years. Four major sectors i.e. construction, manufacturing, service sector, and retail trade were considered randomly as they were available in the towns. While making comparisons municipality services and urban agriculture to these enterprises we have left out because of the relative low absolute figures.

$$n = Z^2_{\frac{\alpha}{2}} \frac{p(1-p)}{E^2} = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2} = 384$$

Where; n is the sample size, $Z^2_{\alpha/2}$ is confidence interval or Z score= $(1.96)^2$. E is margin of error assumed the maximum= 5% and P is prior judgement of the correct value of proportion = 0.5.

Since the above population is small i.e. (1582 < 10,000), the required minimum sample will be obtained by making adjustment (Cochran, 1977).

$$n_{final} = \frac{n}{1 + n/N} = \frac{384}{1 + 384/1582} = 309$$

Hence, the total number of our sample was 309. For selecting these samples of enterprises, the researcher used proportionally probability sampling (PPS) to each of the four towns.

$$n_1 (Ambo) = \frac{N_1}{N} * n = \frac{484}{1582} * 309 = 95$$

$$n_2(Ginchi) = \frac{N_2}{N} * n = \frac{377}{1582} * 309 = 74$$

$$n_3(Bako) = \frac{N_3}{N} * n = \frac{387}{1582} * 309 = 75$$

$$n_4(Gedo) = \frac{N_4}{N} * n = \frac{334}{1582} * 309 = 65$$

$$n_{final} = n_1 + n_2 + n_3 + n_4$$
$$= 95 + 74 + 75 + 65 = 309$$
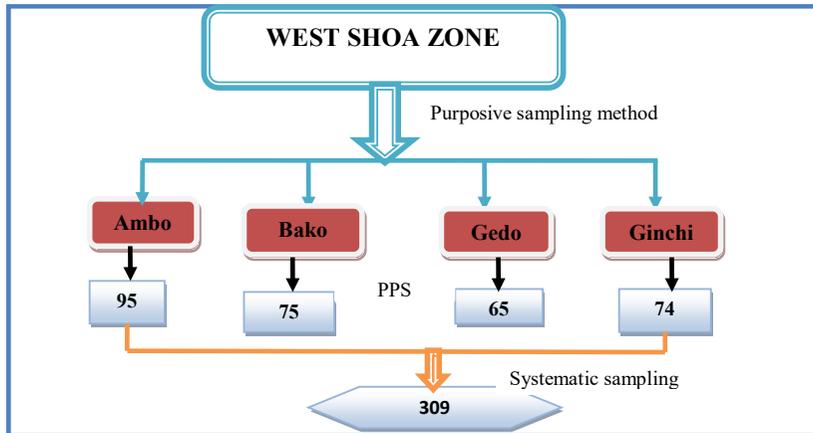
Figure 1. PPS of enterprises within towns

Variables of interest

Growth of MSEs used as a dependent variable. This study considered the following characteristics of growth of MSEs as predictors variable: gender of the owner/operator, owner's prior experience, education level, family size of the operators, personal attitudes, age of the enterprises, governmental support, type of sector, initial capital, distance from raw material, initial size, access to credit, infrastructure, motivation to start business, working place, market variables and location of MSEs.

Model specification

Growth of MSEs status, which is the dependent variable for the binary logistic analysis, is a dichotomous variable representing the growth of MSE. It is represented in the model by 1 for the growing MSEs and 0 for survival MSEs. To measure the growth of MSEs, the researcher used employment size following Evans model of firm growth (Evans, et al, 1989).

$$MSEgrowth = \frac{\ln St - \ln St_i}{entage}$$

Where lnSt is natural logarithm of current employment size, $lnSt_i$ is natural logarithm of initial employment size, entage is the age of MSEs.

The determinants of MSE development in terms of revenue growth and net profit growth are examined by way of statistical logistic regression. By taking the calculated growth rate, the MSEs are classified in to two broad categories i.e., growing (if growth rate > 0) and survival (if growth rate≤ 0).

The binary logistic regression model is applied because it is easier to adjust independent variables as it allows us to explicitly control many other factors that could simultaneously affect the dependent variable.

Suppose there are k predictors $X_1, ...,X_k$ and we would like to have the probabilities π_i depend on a vector of observed covariates X_i. Then, the probabilities of outcome events given the covariate values $X_{1i}, X_{2i, ...}X_{ki}$ and $Logit(\pi(x)) = \ln\left[\frac{\pi(x)}{1-\pi(x)}\right] = \beta_o + \beta_1 X_{1i} + \beta_2 X_{2i} + \ldots + \beta_k X_{ki}$ where $\pi(x)$ is the probability that the MSEs operators are growing (growing rate > 0) and 1−

$\pi(x)$ is the complement, β_o is the constant; β_1, β_2, ..., β_k stand for the regression coefficients, X_{1i}, $X_{2i, ...} X_{ki}$ is the set of independent covariates for the ith enterprises and the ratio $[\pi(x)/1-\pi(x)]$ are the odds that the MSEs operators are growing.

Once a model has been developed, we would like to know how effective the model is in describing the outcome variable. This is referred to as goodness-of-fit. In testing the hypothesis that the model fits the data, the common approaches are Pearson's X^2 statistic, the likelihood-ratio statistic G^2 and Hosmer-Lemeshow test (Agreist, 1996).

Results

Results of descriptive statistics

Table 1. Descriptive statistics on selected variables of growth of MSEs, n = 309.

Variables	Categories	Status of growth MSEs				x^2
		Not growing		Growing		
		count	percent	Count	Percent	P value
Age of manager/ owner	<30	98	70.5%	41	29.5%	
	31-40	93	60.4%	61	39.6%	0.073
	>40	13	81.2%	3	18.8%	
Sex of manager/ owner	Female	61	88.4%	8	11.6%	0.000
	Male	143	59.6%	97	40.4%	
Marital Status manager/owner	Single	60	80.0%	15	20.0%	0.005
	Married	138	60.8%	89	39.2%	
	Divorced/Widow	6	85.7%	1	14.3%	
Nature of business	Partnership	181	66.3%	92	33.7%	0.777
	Proprietorship	23	63.9%	13	36.1%	
Educational level of manager/owner	No education	8	80.0%	2	20.0%	
	Primary	22	88.0%	3	12.0%	0.000
	Secondary	125	75.8%	40	24.2%	
	Diploma & above	49	45.0%	60	55.0%	
Prior experience of the manager/owner	No	144	74.2%	50	25.8%	0.000
	Yes (>=1)	60	52.2%	55	47.8%	
Accesses to Credit	No	133	71.1%	54	28.9%	
	Yes	53	49.5%	54	50.5%	0.000
Accesses to get train	No	139	72.4%	53	27.6%	
	Yes	65	55.6%	52	44.4%	0.000
Assistance from government	No	72	75.8%	23	24.2%	
	Credit	44	58.7%	31	41.3%	0.004
	Place	76	64.4%	42	35.6%	
	Training	12	57.1%	9	42.9%	
	Services	50	76.9%	15	23.1%	
Major activity	Retail trade	93	76.2%	29	23.8%	0.000
	Construction	30	51.7%	28	48.3%	
	Manufacturing	31	48.4%	33	51.6%	
Accesses to market linkage	Low	127	77.4%	37	22.6%	
	Medium	46	60.5%	30	39.5%	0.000
	High	31	44.9%	38	55.1%	
Infrastructures	Low	110	77.5%	32	22.5%	
	Medium	64	66.7%	32	33.3%	0.000
	High	30	42.3%	41	57.7%	
Location of MSEs	Ambo	50	55.6%	40	44.4%	
	Ginchi	45	63.4%	26	36.6%	0.001
	Gedo	44	71.0%	18	29.0%	
	Bako	65	75.6%	21	24.4%	

The presentation about distribution of characteristics by their category is based on Table 1 above.

Accordingly, total of 309 interviewed 34% are found growing (105 MSEs) and the remaining 66% are found survival (204 MSEs) (Figure 2).

MSE Growth Status

Growth - 34%

Survival - 66%
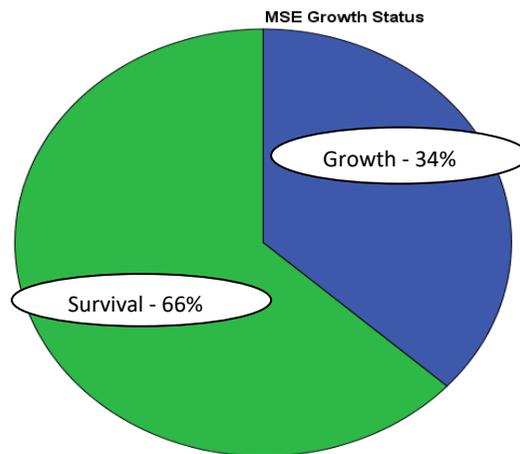
Figure 2. Proportion of the status of MSEs.

The results based on education of the managers/owners of the enterprises showed that only 20% of managers/owners with primary and no formal education had growing. Managers/owners with diploma and above education of the enterprises shows a higher growth rate (55%) than that of managers/owners with secondary complete of the enterprises (24.2%). Thus, the educated managers/owners, whose enterprises are growing than the uneducated managers/owners of the enterprises, In relation to work experience, the study revealed that most of the managers/owners of the enterprises 144 (74.2%) do not have work experience on the sector they have organized in the enterprises showing that it was not growing. This is an indication that people simply rush in to the business without adequate knowledge and experience about the business they engage in and their business leads failure. From experienced managers/owners, only 47.8% were showed more growth rate than those managers/owners had no experience (25.8%).

Access to credit is a variable that is strongly associated with growth rate of MSEs. The proportion of the enterprises which accessed formal and informal credit providers showed growth rate higher (50.5%) than that of not get access to credit (28.9%). Among the enterprises which accessed to train are more growing

(44.4%) than that of no more accesses to train (27.6%). Regarding access to training support, the government has been prioritizing those MSEs that are engaged in the manufacturing and construction.

The highest percentage of growth rate was observed among enterprises which engaged in manufacturing and construction sector (51.6%) and (48.3%) while those enterprises engaged in services and retail trades are growing only 23.1 and 23.8%, respectively. Enterprises highly accessed to market linkage are more growing than that of medium accessed to market linkage and medium accessed to market linkage are more growing than less accessed to market linkage (55.1%, 39.5% and 22.6%), respectively (Figure 3).

In adequate infrastructure like unfavourable roads, power interruption, shortage of water, and inaccessible telecommunications are the major challenges for the growth of MSEs in the study area. Accordingly, MSE's operating with available infrastructure more growing (57.7%) as compared to those MSEs that are operating without adequate infrastructures (22.5%).

The 44.4% growth rate for MSEs located in Ambo town; while 36.6% growth rate for MSEs located in Ginchi; 29% growth rate for MSEs

located in Gedo and 24.4% growth rate for   MSEs located in Bako, respectively (Figure 3).
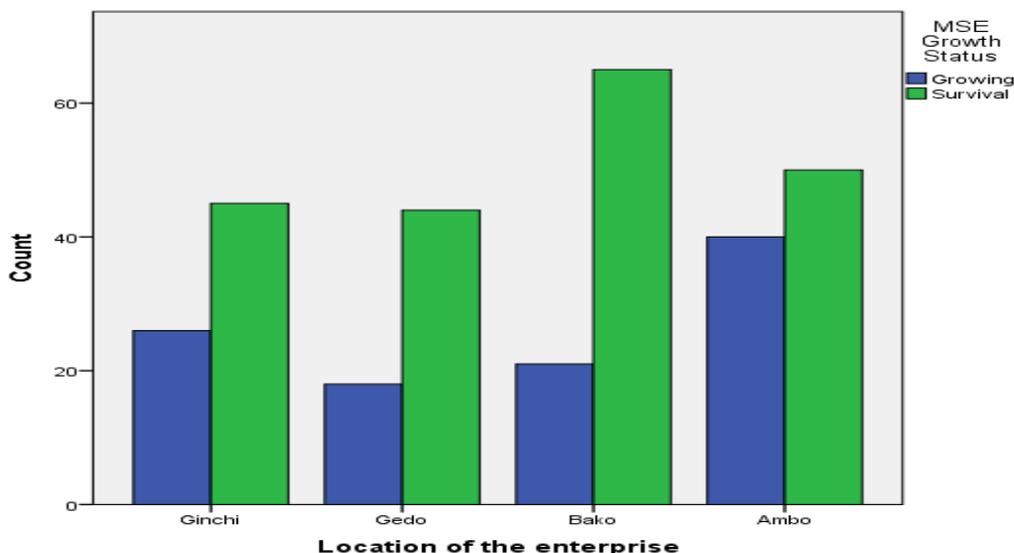
Figure 3. Proportion of location of the status of MSEs

Additionally, Table 1 revealed the results of Chi-square test. Chi- square technique is used to test significant associations between independent variables and dependent variable and also was used to decide on which categorical variable to be included in a binary logistic regression analysis. Since no enough evidence to reject null hypothesis, hence there is no significant relationship between nature/type of the business and MSEs status. Hence the variables which show significant influence were taken to perform binary logistic model for the purpose of looking the combined influence on growth of micro and small enterprises.

Results based on ordinary logistic regression analysis

Logistic regression model was used to identify factors influencing the growth of MSEs. The contribution of each contributor variable was indicated by the odds ratio for each variable. Odds ratio was used to interpret each of independent variable relative to a reference category for categorical variable.

We would like to point out that the discussion of the logistic regression analysis assumed that a result about a factor /variable is given by controlling the effects of the remaining predictors (actors/variables) in the model. Manager/owner of the enterprise with no education and manager /owner with primary education were 86.8% and 45.8% less likely to perform well compared to manager /owner with diploma and above (OR= 0.132; 95%, CI: 0.049-0.358) and (OR= 0.542; 95%, CI: 0.129-1.124) respectively; manager /owner who had secondary education had also the same less likely to show the growth compared to the reference manager /owner with diploma and above (OR =0.791; 95%, CI: 0.557-1.124). Growth of the MSEs was found to be associated significantly withprior experience manager /owner of the enterprise. Manager /owner who had one and more experience were 3.308 times more likely to make growth than that of no experience manager /owner (OR=3.308; 95%, CI: 1.415-7.733).

Growth of the MSEs also varied with accessed to credit and assessed to working place. Enterprises that didn't get credit 0.297 times less likely to grow than that of accessed to credit (OR=0.297; 95%, CI: 0.121-0.733). Also enterprises that didn't get working place 62.1% less likely to grow than that of reference category of the covariate (OR=0.379; 95%, CI: 0.165-0.873). Accessibility to training also affects the growth of MSEs; enterprise that get at least one professional training increased by one unit while that had not get any training only 0.445 odd ratio times (Table 2).

Table 2. Estimates from the logistic regression analysis for factors associated with growth of MSEs.

Covariates	$\hat{\beta}$	S.E($\hat{\beta}$)	Wald	d.f.	P-value	$\widehat{OR}$	95% C.I. for OR Lower	Upper
Sex of manager/ owner	1.063	0.611	3.026	1	0.082	2.896	0874	1.863
Education level of manager/owner	-2.023	0.508	22.438	3	0.000	0.132	0.049	0.358
No education	-0.612	0.207	15.845	1	0.000	0.542	0.129	1.872
Primary	-0.234	0.179	8.750	1	0.003	0.791	0.557	1.124
Secondary			1.710	1	0.011			
Diploma & above (ref)								
Age of manager/ owner	-0.866	1.026	1.142	2	0.565	0.420	0.056	3.144
21-30	-1.048	1.010	0.712	1	0.399	0.351	0.048	2.540
31-40			1.076	1	0.300			
Greater 40								
Marital status of manager	0.386	1.345	2.730	21	0.255	1.471		
Single	-0.773	0.523	0.082	1	0.774	0.462	0.105	1.012
Married			2.181		0.140		0.166	1.288
Divorced/Widow								
Prior experience								
Yes	1.196	0.433	7.625	1	0.006	3.308	1.415	7.733
No (ref)								
Access to credit								
No	-1.213	0.461	6.932	1	0.008	0.297	0.121	0.733
Yes(ref)								
Main activity			186.142	3	0.000			
Services	-1.654	0.165	100.191	1	0.000	0.191	0.138	0.264
Retail trade	-0.796	0.146	29.714	1	0.000	0.451	0.339	0.601
Construction	-0.286	0.147	6.185	1	0.013	0.986	0.068	11.847
Manufacturing (ref)								
Attitudes of persons for MSEs								
Not good	-1.370	0.575	5.667	1	0.017	0.254	0.082	0.785
Good (ref)								
Access to training								
No	-0.810	0.422	3.687	1	0.005	0.445	0.194	1.017
Yes (ref)								
Lack of working place								
No	-0.969	0.425	5.194	1	0.023	0.379	0.165	0.873
Yes(ref)								
Accesses to market linkage			6.150	2	0.000			
Low	-0.982	0.572	8.280	1	0.000	0.353	0.141	0.950
Medium	-0.486	0.077	40.274	1	0.000	0.615	0.530	0.715
Good (ref)								
Infrastructures			8.003	2	0.018			
Low	-1.716	0.642	7.143	1	0.008	0.180	0.051	0.633
Medium	0.826	0.449	51.150	1	0.048	1.456	0.458	2.664
High (ref)								
Location of enterprises			15.668	3	0.001			
Ambo	1.263	0.349	13.126	1	0.000	3.536	1.786	7.003
Ginch	0.983	0.350	7.864	1	0.005	2.672	1.344	5.310
Gedo	0.615	0.325	3.578	1	0.059	1.850	0.978	3.498
Bako (ref)								
Constant	2.478	0.297	69.636	1	0.000	11.918		

* Statistically Significant at (p<0.05) ref. = reference category

With regards to types of activity of MSEs enterprises engaged in services and were retail trade observed that less the rate of growth than that of engaged in manufacturing sector (OR=0.191; 95%, CI: 0.138-0.264) and (OR=0.451; 95%, CI: 0.339-0.601), respectively. Enterprises engaged in construction have almost the same level growth rate to enterprises engaged in manufacturing (OR=0.986; 95%, CI: 0.068-11.847).

The output of the model shown in Table 2 reveals, most influential variables that significantly determine the growth of MSEs are accesses to market linkage enterprises that are less accessibility with market linkage showed less growth rate than that of had good market linkage (OR=0.353; 95%, CI: 0.141-0.650). Those in the medium level also 38.5% less likely to grow than that of reference category (OR=0.615; 95%, CI: 0.530-0.715).

The relationship between growth of MSEs and infrastructure required for the enterprises was another concern of the study. Accordingly, enterprises assessed fewer infrastructures less likely to growing compared to enterprises assessed high infrastructures (OR=0.180; 95% CI: 0.051-0.633) and enterprises categorized in medium almost the same level growth rate to of reference category (OR=1.456; 95%, CI: 0.458-2.664). MSEs Growth is associated with locations where they are operating. The odds of growth of MSEs which are located in Ambo town 3.536 times more likely as compared to

MSEs located in Bako (OR= 3.536; 95%, CI:1.786-7.003). Similarly, MSEs in Ginch and Gedo 2.672 and 1.850 times more likely to growth than MSEs in Bako (OR= 1.850; 95%, CI:1.344-5.310) and (OR= 1.850; 95%, CI:0.978-3.498), respectively. This is due to obtained ability of the users of the products in urban and it is consistent with the finding of Habtamu *et al.* (2013) and Fikadu (2015).

Goodness of fit

The goodness-of-fit measures how effectively the model describes the response variable. The most common assessments of overall model fit in logistic regression are likelihood ratio test and Hosmer-Lemeshow.

The likelihood ratio test is simply the chi-square difference between the null model (i.e. with the constant only) and the model containing the predictors. Under model summary in Table 3 we see that the results of -2Log likelihood statistics is 236.335. The smaller the statistic value the better the model (Agreist, 1996). When we add predictors' value of the -2 Log likelihoodstatistic became smaller by 397.081– 236.335= 160.746, which is the statistic for omnibus test. If the model with the predictors is significantly different from the model with only the intercept we use the omnibus test of model coefficients test.

Table 3. Omnibus tests of model coefficients and model summary

		Chi-square	df	Sig.
	Step	160.746	21	0.000
Step 1	Block	160.746	21	0.000
	Model	160.746	21	0.000

	Model Summary		
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	236.335	0.406	0.561

The difference of these two yields a chi-square statistic which is a measure of how well factors /predictor variables affect the outcome variable. The value of $\chi^2 = 160.746$ with d.f = 21, p-value < 0.001, shows that there is adequate fit of the data to the model, meaning that at least one of the predictors is significantly related to the

response variable. This means the null hypothesis that there is no difference between the model with only a constant and model with predictor variables was rejected (Table 3).

The Hosmer-Lemeshow statistic measures the goodness-of-fit by creating 10 ordered groups of

subjects and then compares the number actually in each group (observed) to the number predicted by the logistic regression model (predicted). Thus, the test statistic is a chi-square statistic with a desirable outcome of non-significance, indicating that the model prediction does not significantly differ from the observed. The p-value of Hosmer-Lemeshow test is 0.141(Chi-square = 12.228 and df = 8) showing that we fail to reject the null hypothesis that there is no difference between observed and predicted values, implying that the model adequately fits the data at a 0.05 level of significance.

Discussion

MSEs play a leading role in sustainable development. MSEs are important to almost all economies in the world, but especially to those in developing countries since these enterprises are an effective antipoverty program and one of the building blocks of innovation and sustainable growth. MSEs in the study area had provide employment opportunities to owners and employees, and helped them to increase their per capita income and able to help their families. Even though the sector has huge contributions for the society the study attempted to examine factors that influence the growth of MSEs in the study area. For that purpose descriptive analysis and binary logistic regression techniques were used.

From a total of 309 enterprises 105 (34%) were found to be growing while the remaining 204 (66%) did not. The result is similar with the studies of founded (Wasihun and Paul, 2010) and (Gebreyesus, 2009).

Results of the multiple logistic regression analysis showed that those enterprises that are growing: got access to credit, educational level high, owned well place of working, got adequate training about the entrepreneurship, available with infrastructure, engaged in manufacturing and construction sector. This finding is similar to those by (Habtamu *et a.l*, 2013, Abubakari and Upendo, 2016, Atu and Akosua, 2016).

MSEs headed/owned with no formal education were less likely to grow; where the probability of showed the higher growth rate as educational attainment of manager/owner increased. Castro

(2014) revealed that the education level of the respondents was a significant factor that influenced changes in the net profits and capital of the enterprises. This implied that for the MSEs to record better performance in net profits, and capital, it was necessary for entrepreneurs to have acquired standard education levels to manage the enterprise. A study by Wasihun and Paul (2010) carried out in Addis Ababa; Ethiopia reported that to some extent, entrepreneurs with higher education levels are able to make wise and rational decisions on management of enterprises. Work experience and training on business was a significant factor that influenced positive changes of the MSEs. The results supported by the findings of (Abubakari and Upendo, 2016, Markos *et al.*, 2015, Singh *et al*, 2008 and Aylin *et al.*, 2013).

Accesses to credit/financial support were another factor. Accordingly, in the study areas enterprises are faced great financing obstacles. According to Shah *et al.* (2013), financial institutions behave more cautiously when providing loans to MSEs, and MSEs are usually charged comparatively high interest. An empirical study by International Labour Office (ILO) Seed Program and African Development Bank (ADB) (2004) found that lack of credit was a major hindrance to development of small business. Raheman and Nasr (2007) observed that there was a positive significance relationship between amount credit invested in an enterprise and the profit earned.

As expected, the growth rate of the MSEs influenced by working place and access to market /linkage. This result consists with findings of study by Mekonnen and Tilaye (2013) and Dagmawit (2016) concluded that lack of market linkage is problem to the growth of MSEs.Working premise is found to have significant positive impact on MSEs growth. The model output reveals that keeping other factors constant, enterprises with low infrastructures 82% times less than those MSEs with high infrastructure. This confirms with the study of Habtamu (2013) indicated that MSE's operating with available infrastructure facilities has higher probability of long lasting existence and growth as compared to those MSEs that are operating without adequate infrastructures; and electric power interruption and inadequate water supply

in Ethiopia was highly affected the growth of the business. Nuwagaba and Nzewi (2013) observed 100% of the respondents reported as poor infrastructure from their study. The access of infrastructure facilities including the supply of electricity, water, road, telecommunication connection, sewerage systems, etc are crucial for the expansion of MSEs.

Location of the enterprise is also one of the crucial factors influencing gross sales; this is because access and proximity to urban areas reduce the transportation costs associated with supplying produce to business clients (Morgan and Alipoe, 2001) and (Edinam *et al.*, 2015).

Conclusion

This study was conducted in four towns in West Shoa Zone with the intent of assessing the factors that determines the growth of MSEs in study area. Specifically, the study attempted to evaluate the growth statuses of MSEs, to investigate whether predictors have relationship with the growth of MSEs, to verify whether government-supporting services affects the growth of MSEs, to identify and analyze whether the sector in which the MSEs operate can have significant impact on the growth of MSEs.

Results of the multiple logistic regression analysis showed that educational attainment of the manager/owner, prior experience of the manager /owner, access to credit and training, main activity, accesses to market linkage, infrastructures were found to be the major statistically significant impact of the growth of MSEs. Sex, age and marital status of the manager/owner are not statistically significant impact of the growth of MSEs. Special attention should be given to access to financing. Government and non-government including the private institutions closely lend a hand to give effective support on training, premise places, market linkages and infrastructure facilities, preferring sectors like manufacturing and construction. Infrastructure facility should also be considered.

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