

An Econometric Investigation of Determinants of Growth of Micro and Small Scale Enterprises in Ethiopia: The Case Robe Town, West Bale Zone!

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Abstract

The main objective of the study was to identify factors affecting the growth of MSEs in Robe Town. To achieve this objective, primary data were collected through a structured questionnaire from a sample of 384 micro and small-scale enterprise owners/managers. A multiple linear regression model was applied for data analysis. The results of multiple linear regression results reveal that growth of MSEs measured in terms of employment change was affected by owners/manager's education level, work experience of the managers/workers, size of business enterprises, access to formal credit, infrastructure and work premises. Based on the major findings of the study, expansion of credit services, provision of training, development of infrastructure and provision of workplace were recommended.

Keywords: Micro and small enterprises • Growth • Multiple linear • Regressions infrastructure development • Employment change

Introduction

Ethiopia's economic growth performance has been quite remarkable, particularly for the last two decades-real GDP grew by 7.4% in 2019 (NBE, 2020). The Human Development Index for Ethiopia improved from 0.28 in 2000 to 0.47 in 2018 (EEA, 2021). Despite such impressive growth, the fruit of this growth has failed to produce sufficient employment opportunities for the bulk of the youth population. The urban labor market in Ethiopia is characterized by high unemployment and underemployment. During the last decade, urban unemployment in Ethiopia stood at about 19% and more than a quarter of the youth (aged 15-29) in Ethiopia are unemployed (EEA, 2021). As to curb challenges of unemployment and identify growth determinants, the government has been Micro and Small scale enterprises (MSEs) were given more attention in Ethiopian plan for Growth and Transformation Plan (GTP) agenda [1].

In Ethiopia, the importance of this sector is noticed on different documents like industrial policy, MSE development strategy, and the growth and transformation plans I and II to accelerate growth and reduce poverty [2]. According to NBE (2020) Annual Report, during 2019/20 alone, a total of 111,547 new Micro and Small Scale Enterprises (MSEs) employing about 1.6 million people were established [3]. These enterprises received more than Ethiopian Birr 7.7 billion in loans during the review fiscal year. However, the sector confronted several factors that affected its performance to grow and develop to its potentials [4].

Fetene found that financial, management, marketing, entrepreneurial, technology, politico-legal, infrastructural, and working premises factors have been discovered substantially affecting the business performance of SMEs. Therefore, further investigation is very much crucial for increasing the contribution of the sector towards creating employment opportunities and reducing poverty. However, even if ample studies were conducted in

somewhere else in large towns of Ethiopia, there are no similar studies at Bale-Robe Town [5-7].

Kamunge, et al. argued that small and medium enterprises are part of the entire industrial development sector ranging from agricultural, mining, fishing, manufacturing, services industry to climate changes [8]. According to Gupta, et al. [9] growth, MSEs helps in income generation, value addition and expansions in terms of the volume of the business. The growth of micro and small-scale enterprises can be evaluated with qualitative features like market share, product quality and customer satisfaction.

Gupta, et al. further indicated that MSEs pass through stages of existence, survival, success, and take-off and resource maturity. Even though MSEs have a contribution to the economy, the main problem for their failure is usually related to technology, skill, capital and market challenges lag their development. For this reason, conducting specific research in Bale-Robe town is very much crucial to provide particular solutions for the poor performance of MSEs growth. Therefore, this study was intended to identify the major driving forces of the growth of micro and small-scale enterprises in Robe Town [9].

Conceptual framework

Based on the reviewed literature, the conceptual framework of factors that determines the growth of micro and small enterprises is formulated in Figure 1 below.

Methodology

The study was conducted in Robe Town which is in West Bale Zone, located in South-Eastern Ethiopia. It is also located about 430 km to the southeast of the national capital, Addis Ababa. The total area of the town is 8024 km². The town is divided into three kebeles, namely, Oda Robe, Beha Biftu and Chefe Donsa, consisting of about 5351, 2172, and 5948 households, respectively. Generally, the town is growing at an alarming rate of 6% per year, far more than the national average growth rate of 4.2% per year [10]. Robe town is the administrative center of West Bale Zone. Currently, the town is serving as a center for numerous governmental and non-governmental institutions.

In this study, an inferential and explanatory research design was applied. This is because the study aims at estimating the integrated influence of the factors on micro and small enterprise business expansion. Both primary data sources and secondary data sources were used as a source of data. Primary data was collected using a semi-structured questionnaire from sample MSEs owners/managers. The sample size was determined by the following Kothari for unknown population size which is given as [11],

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Received 16 November 2021; Accepted 30 November 2021; Published 07 December 2021

$$n = \frac{Z^2 p q}{e^2} = \frac{(1.96)(1.96)(0.5)(0.5)}{(0.05)(0.05)} = 384$$

Where: n=the required sample size, P=q=0.5 is the probability of success of Micro and small scale enterprises and assumed to be 0.5 since this would provide the maximum sample size), Z=1.96 which is the confidence interval of 95% with a significance level of 5%, e= is the desired level of precision or margin of error (5% error or 0.05).

Following, Gujarati data was analyzed using multiple linear regression models which is specified as:

$$\text{Growth of MSEs} = \alpha + X_i\beta_i + \varepsilon_i$$

Where: Growth is the change in employment for the *i*th enterprises in percent;

α is a constant term;

β parameters to be estimated;

ε is error term;

X_i is the explanatory variables.

(Sex of the manager/owner, age of the managers/owners, educational attainment of the managers/owners, work experiences of the manager/owner, size of business, access to infrastructural facilities, access to credit and sup-

port from NGOs or other bodies) [12].

Results and Discussion

Multiple linear regression

Multiple regression analysis results portray that R^2 is 0.8106 and adjusted R^2 is 0.7742. R^2 measures the strength of association of the independent variables with the dependent variable. This implied that 81.06% variation in the growth of MSEs is explained by the explanatory variables. The overall significance F-tests assess whether the group of independent variables when used together reliably predicts the dependent variable. Therefore, the significance value of F statistics indicates a value of 0.000 and it was less than $p < 0.05$ so that means the model was significant enough.

The smaller the value of p-value (and the larger the value of t) the greater the contribution of that predictor. The result of multiple regression analysis in the Table 1 demonstrates that six explanatory (educational attainment, access to credit, size of business, access to basic infrastructural facilities, work experience and support/training received from NGOs) have a positive and significant influence on the growth SMEs.

Interpretations of significant variables

Educational attainment of the manager/owner: The educational attainment of the respondent had significantly and positively affected the growth of SMEs with a p-value of less than 5%. This implies a unit increment in educational

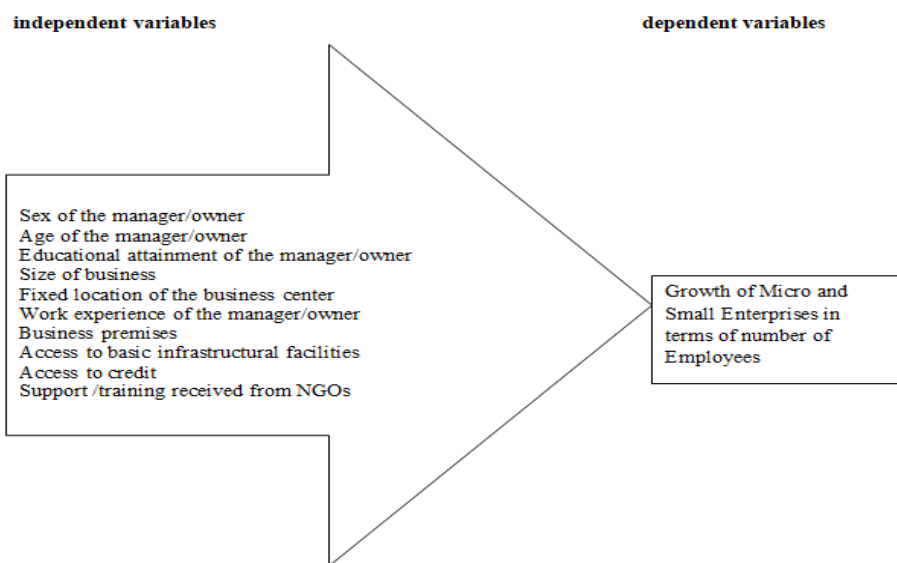


Figure 1. Conceptual framework.

Table 1. Multiple linear regression results of determinants growth of micro and small enterprises.

Independent variables	Coefficient	Std.Err	t value
Sex of the managers/owners (1=male , 0= female)	1.021	3.56	0.29
Age of the managers/owners in years	-0.1245	0.243	-0.51
Educational attainment of the managers/owners in grades	0.823 ^{***}	0.40	2.05
Size of business (1=small scale enterprise, 0=micro-enterprises)	12.62 ^{***}	2.63	4.80
Fixed location of the business centre (1= yes, 0= no)	-1.23	2.36	-0.52
Work experience of the managers/owners in years	1.025 ^{***}	0.34	2.95
Business premises (1= yes, 0= no)	-2.47	2.49	-0.99
Access to basic infrastructural facilities	12.72 ^{***}	2.53	5.02
Access to credit (1=yes, 0=no)	10.579 ^{***}	3.47	3.04
Support/trainings received from NGOs (1=yes , 0=no)	7.927 ^{***}	2.71	2.92
Constant	-0.318	9.97	-0.03

R^2 is 0.8106; adjusted R^2 is 0.7742; observation =384; $F(12, 160)=100.22^{***}$

Note: ^{***} and ^{**} represent level of significance at 1% and 5%, respectively. **Source:** Computed from own survey data (2021).

background, which leads to a growth of MSEs by 0.823%. Higher educational attainment is expected to increase the ability to cope with complications and grab opportunities. This finding is consistent with other empirical Hailay, et al. study that found owners/operators of MSEs with higher formal education and training would be expected to grow faster than their counterparts [13,14].

Work experience of the managers/owners: This variable was statistically positive and significant at 1%. The coefficient of the variable indicates that a 1-year increase experience year increases the growth of MSEs by 1.025%. It is believed that experienced entrepreneurs have accumulated experience and assets. This might make MSEs more and more profitable and help them to employ more and more. This result corroborates the findings reported that a firm with more years of work experience typically has faster-growing than their counterparty [15,16].

Support/training received from NGOs: The government support provision is statistically significant for the MSEs growth at less than 1% level of significance. Enterprise who gets government support has a better chance to grow than those MSEs who did not obtain government/non-government organization support services. The coefficient shows that those MSEs who receive government support are had grown by 7.927%. Berihu, et al. also found that government support was essential for the MSEs, and those enterprises who have utilized all available government support achieved better growth because the government provides resources, entrepreneurial training, and skill upgrading [17].

Access to credit: Access to finance or credit also appears to have significant effects on the firm's performance. External finance access tends to make small firms more competitive. This variable is statistically significant at 1%. The coefficient of access to credit (10.579) indicates that access to credit increases the growth of MSEs by 10.579. The probable justification is that the availability of credit ensures the smooth operation of firms as it injects working capital. This finding was congruent with the findings of Addis that access to credit is one of the most influential factors and positively affects the growth of SMEs [18].

Size of business: This variable has a positive coefficient (12.62) which is statistically significant at a 1% significance level. The probable justification is that relatively bigger firms may have more resources to diversify and grow faster than micro-enterprises. Fukuda, et al. argued that small and medium-size companies were more vulnerable during the economic crisis.

Access to basic infrastructural facilities: Infrastructure significantly and positively affects MSEs growth with a p-value of 0.000. This implies a unit increment in infrastructure, which leads to an increase in MSEs growth by 12.72%. This result keeps the findings of Hailay, et al. that access to infrastructure access, insufficient and inconvenient of road, insufficient and interruption of power, insufficient and interruption of water supply, lack of sufficient and quick transportation and insufficient and interruption of communication services were a significant factor which influences the growth of SMEs [13].

Conclusion and Recommendations

The purpose of this study was to analyze factors that affect the growth of MSEs by using a multiple linear regression model. Data was collected through structured and unstructured questionnaires from 384 MSEs owners/managers selected. From independent variables included in the model, growth of MSEs was affected by the size of business, access to basic infrastructural facilities, access to credit, work experience of the manager/owner, support/training received from NGOs and educational attainment of the manager/owner. Thus, based on the finding and conclusions reached in this study, the following recommendations were made.

- Creating micro and small scale enterprises with microfinance, providing continuous training and support.
- Provision of basic infrastructure facilities.
- Linking owners/managers of MSEs with TVET is very important.

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How to cite this article: Mulatu, Gemechu. "An Econometric Investigation of Determinants of Growth of Micro and Small Scale Enterprises in Ethiopia: The Case Robe Town, West Bale Zone!" *Bus Econ J* 12 (2021): 374.